# DANIEL SCHLENK

Professor

Environmental Toxicology
Department of Environmental Sciences
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**DATE OF BIRTH: 12-30-61** 

### **EDUCATION**

Ph.D. Biochemical Toxicology; Oregon State University, June 1989 B.S. Toxicology; Northeast Louisiana University, May 1984

Postdoctoral Fellow: Duke University 1989-1991

# **EMPLOYMENT**

- 2000-present; Professor, Environmental Toxicology, Department of Environmental Sciences, University of California, Riverside
- 1999-2000 Program Coordinator of Environmental Toxicology Program, Environmental and Community Health Research Program, School of Pharmacy, University of Mississippi
- 1998-2000 Associate Professor of Pharmacology and Toxicology, University of Mississippi (University, MS).
- 1998-2000 Coordinator for the Graduate Program in Pharmacology, University of Mississippi (University, MS)
- 1995-1998 Assistant Professor of Pharmacology and Toxicology University of Mississippi (University, MS).
- 1991-1995 Assistant Professor Toxicology, University of Arkansas for Medical Sciences (Little Rock, AR).
- 1989-1991 Postdoctoral Fellow, Duke University Marine Laboratory, Integrated Toxicology Program, (Beaufort, N.C.).
- 1986-1989 Predoctoral Fellow, Oregon State University, Toxicology Program (Corvallis, OR).
- 1985-1986 Research Assistant, Oregon State University, College of Pharmacy (Corvallis, OR).

1984-1985 Research Assistant, Oregon State University, Department of Environmental Engineering (Corvallis, OR).

# ACADEMIC HONORS

NIEHS Postdoctoral Fellow, Duke University 1989-1991 NIEHS Predoctoral Fellow, Oregon State University 1986-1989

Visiting Scholar Department of Biochemistry; Chinese University of Hong Kong 1995; 1998; 1999

Ray Lankester Investigatorship -Marine Biological Association of the United Kingdom 1998

Visiting Scholar of the Instituto Del Mare, Venice Italy 1999

University of Mississippi; School of Pharmacy, Faculty Research Award, 1999-2000.

Member of Eleventh International Pollution Responses in Marine Organisms Symposium Scientific Advisory Committee, Plymouth, United Kingdom 2001, 2007, 2009.

George E. Brown, Jr. Award (UC-MEXUS) Co-PI with J. Garcia-Hernandez 2001

Visiting Scholar CSIRO Laboratory Lucas Heights, Australia 2003

Invited participant in the Joint SETAC-SOT Pellston Workshop on Emerging Molecular and Computational Approaches for Cross-Species Extrapolations. Portland, OR July 18-22, 2004.

Keynote Speaker: 5<sup>th</sup> International Conference on Marine Pollution and Ecotoxicology, City University of Hong Kong June 3-6, 2007

Keynote Speaker: Symposium on Molecular Chirality 2008, Okayama University, Japan May 22-23, 2008

Keynote Speaker: 6<sup>th</sup> International Conference on Marine Pollution and Ecotoxicology, City University of Hong Kong May 31-June 3, 2010

Fellow American Association for the Advancement of Science 2010

# SOCIETY MEMBERSHIPS AND OFFICES

Member of Society of Environmental Toxicology and Chemistry, 1992-present Founding Board Member and Secretary/Treasurer Mid-South SETAC 1995-1996; Vice President 1996-1997; President 1998-1999

Member of Society of Toxicology, 1987-present

Member of the International Society for the Study of Xenobiotics 1999-2009

- Member Society of Environmental Toxicology and Chemistry Education Committee 1998- 2001.
- Member Society of Environmental Toxicology and Chemistry Organizing Committee for Nashville 2000; Platform Session Co-chair
- Secretary and Member of South Central Chapter of Society of Toxicology 1999-2000.

  Board Member of Southern California Regional Chapter of the Society of Environmental Toxicology and Chemistry 2001-2004.
- Member of Organizing Committee (Plenary Session) for the 2002 annual meeting of the Southern California Regional Chapter of the Society of Environmental Toxicology and Chemistry
- Board member of Southern California Regional Chapter of the Society of Toxicology 2002-2004.
- Vice President of Southern California Regional Chapter of the Society of Environmental Toxicology and Chemistry 2004
- President of Southern California Regional Chapter of the Society of Environmental Toxicology and Chemistry 2005
- Member of the Board of Directors for the North American Society of Environmental Toxicology and Chemistry 2003-2006
- Member of the Board of Trustees for the SETAC North America Board of Endowment Fund 2006-present
- Co-Organizer 16<sup>th</sup> International Symposium for Pollution Responses in Marine Organisms. Long Beach, CA May 15-18, 2011.

# EDITORIAL RESPONSIBILITIES

Co-Editor in Chief- Aquatic Toxicology (2005-2011)

Editorial Board: *Toxicological Sciences* (2000-present), *Marine Environmental Research* (2000-present), *Aquatic Toxicology* (2001-present), *Environmental Toxicology and Chemistry* (2003-2005), Asian Journal of Ecotoxicolgy (2006-present).

# Ad Hoc reviewer for:

Molecular Pharmacology; Ecological adapations; Biomarker; Neurotoxicology and Teratogenicity; Archives of Environmental Contamination and Toxicology; Comparative Biochemistry and Physiology; Drug Metabolism and Disposition; Biochemical Pharmacology; Journal of Aquatic Animal Health; Toxicology and Applied Pharmacology, Environmental and Molecular Mutagenesis, Gene, Journal of Toxicology and Environmental Health, Environmental Science and Technology, Biochemistry and Biophysics Acta, International Journal of Environmental Analytical Chemistry, Physiological Zoology, Human and Ecological Risk Assessment, Science of the Total Environment, Naturwissenschaften, Environmental Pollution. Chemico-biological Interactions, Marine Pollution Bulletin, Journal of Molecular Evolution, Chemical Research in Toxicology, Integrated Environmental Assessment and Management, Pesticide Biochemistry and Physiology, Ecotoxicology and Environmental Safety,

Bulletin of Environmental Contamination and Toxicology, Environmental Impact Assessments, Hydrobiologia, Expert Opinions in Drug Metabolism and Toxicology

### INTERNATIONAL REVIEW PANELS

International Steering Committee for University of Waterloo "Determining the efficacy of emerging contaminant removal within existing treatment trains relevant to Canadian conditions through chemical and toxicological assessments." (2010-2013). Canadian Water Network Grant Review (2007; 2009) National Environmental Research Council, United Kingdom (2008); National Science Foundation, South Africa (2009); The Faculty of Science at University of Gothenburg (2009)

#### FEDERAL REVIEW PANELS

Permanent Member USEPA FIFRA Science Advisory Panel (2007-present)

Ad hoc reviewer NIEHS Freshwater Biomedical Centers (1996); US Department of Agriculture (1997-2000) and National Science Foundation (1996-present). NOAA Oceans and Human Health Initiative Grant Review Panel (2005); USEPA Endocrine Disrupter Mixtures Grant Review Panel (2005); USEPA Science Advisory Board Aquatic Life Criteria Guidelines (2005); NIEHS P30 Core-Center Applications (2008)

# STATE OR FOUNDATION REVIEW PANELS

Ad Hoc reviewer for California SEAGRANT (1999-present); Woods Hole SEAGRANT (1994-present); Delaware SEAGRANT (1992); Hudson River Foundation (2000); TMDL review for Diazinon in Chollas Creek, CA (2001); University of California Marine Council (2001-2006); California Surface Waters Ambient Monitoring Program Scientific Planning and Review Committee (2002); California Aquatic Pesticide Monitoring Scientific Advisory Panel (2002-2004); UC Water Resources Research Institute (2003-2005); Environmental Effects Panel, San Francisco Esturary Institute (2005-present). Technical Advisory Committee, Santa Ana Regional Water Quality Control Board (2006). Pelagic Organism Decline Advisory Committee (2007-2010), National Water Research Institute Scientific Advisory Panel (2008-present). Blue-Ribbon Panel for Contaminants of Emerging Concern in Recycled Water for the State of California (2009-2010). Blue Ribbon Panel for the Ecological Effects of Contaminants of Emerging Concern (2010-2011).

# INVITED PRESENTATIONS (International engagements in bold)

- 1989 Third Institute of Oceanography, Xiamen University, Xiamen, China.
- 1989 Plymouth Marine Laboratory, Plymouth, United Kingdom.
- 1991 Department of Biology, University of Arkansas Little Rock, Little Rock, AR.
- 1991 U.S. Fish and Wildlife Fish Farming Experimental Laboratory, Stuttgart, AR.
- 1992 Department of Biochemistry, University of Arkansas for Medical Sciences, Little Rock, AR.
- 1992 Department of Pharmacology and Toxicology, Northeast Louisiana University, Monroe, LA.

- 1992 US FDA National Center for Toxicological Research, Jefferson, AR.
- 1992 Toxicology Program, Oregon State University, Covallis, OR.
- 1993 Southern Regional Research Center, US Department of Agriculture, New Orleans, LA.
- 1993 Department of Pharmacology and Toxicology, Medical College of Wisconsin, Milwaukee, WS.
- 1993 Department of Biochemistry, Louisiana State University, Baton Rouge, LA.
- 1994 Department of Biology University of Central Arkansas, Conway, AR.
- 1994 International Association for Great Lakes research, Basic and Applied Aspects of Aquatic Biotechnology Symposium, Windsor, Ontario.
- 1994 Society of Environmental Toxicology and Chemistry, Biotransformation: Influence on Bioaccumulation and Toxicity. Denver CO.
- 1995 Southern States Mercury Task Force, Jackson, MS.
- 1995 Department of Pharmacognosy, University of Mississippi, Oxford, MS.
- 1995 College of Veterinary Medicine, Mississippi State University, Starkville, MS.
- 1995 Southeastern Regional Chapter of Society of Toxicology, University of Georgia, Athens, GA.
- 1995 Department of Biochemistry, The Chinese University of Hong Kong.
- 1996 Department of Biology, University of Mississippi, Oxford, MS.
- 1996 Arkansas Chapter of the American Fisheries Society, Arkansas State University, Jonesboro, AR.
- 1996 Department of Biology, University of Memphis, Memphis, TN.
- 1997 Northeast Louisiana University, Division of Toxicology, Monroe, LA.
- 1997 European Society for Comparative Physiology and Biochemistry: Third International Symposium on: Research for Aquaculture: Fundamental and Applied Aspects, Barcelona, Spain.
- 1998 Department of Environmental and Molecular Toxicology, Oregon State University, Corvallis OR
- 1998 2nd International Conference on Marine Pollution and Ecotoxicology Hong Kong, China
- 1998 Marine Biological Association of the United Kingdom Plymouth UK
- 1998 Department of Biochemistry, The Chinese University of Hong Kong
- 1998 Department of Pharmacology, University of Mississippi
- 1999 Trimethylaminuria Workshop; National Institutes of Health, Bethesda MD.
- 1999 Instructor for Aquatic Toxicology Workshop; 10<sup>th</sup> International Pollution Responses in Marine Organisms Symposium, College of William and Mary, Williamsburg, VA
- 1999 Center for Bioenvironmental Research, Tulane University, New Orleans, LA
- 1999 Beijing School of Pharmacy, Beijing Medical University, Beijing China
- 1999 Department of Biochemistry, The Chinese University of Hong Kong
- 1999 Department of Biology Ouachita Baptist University, Arkadelphia, AR
- 1999 Department of Biology, Rhodes College, Memphis, TN
- 1999 Instituto Del Mare, Venice Italy
- 1999 Nicolas School of the Environment, Duke University, Durham, North Carolina
- 1999 Nicolas School of the Environment , Duke University Marine Laboratory, Beaufort, North Carolina

- 2000 Oregon Department of Environmental Quality Task Force on the Use of Biomarkers in determine sediment quality criteria in Portland Harbor and the lower Williamette River System, OR; Portland, OR.
- 2000 Department of Pharmacognosy, University of Mississippi, University, MS.
- 2000 Environmental Toxicology Program University of California, Davis
- 2000 Environmental Chemistry/Toxicology Seminar, University of California, Riverside, CA
- 2000 USDA National Salinity Laboratory, Riverside, CA
- 2001 Southern California SETAC, Irvine, CA
- 2001 Southern California Coastal Water Research Project, Westminister, CA
- 2001 Moldova State University, Moldova
- 2001 Environmental Monitoring and Assessment Program Symposium, USEPA Pennsacola Beach, FL
- 2001 Hudson River Foundation, New York, NY
- 2001 City of Hope Cancer Research Center, Duarte, CA.
- 2002 2<sup>nd</sup> International Trimethylaminuria Workshop, National Institutes of Health, Bethesda, MD
- 2002 Water Education Foundation; Association of Groudwater Agencies; Managing Groundwater Basins for Water Quality and Supply, Ontario, CA
- 2002 European Society of Environmental Toxicology and Chemistry, Vienna Austria
- 2002 Institute of Zoology, Moldova Academy of Sciences, Moldova
- 2002 Southern California SETAC annual meeting: Symposium: Pharmaceuticals in the Environment UC-Riverside
- 2002 Sixth International Symposium on Cytochrome P450 Biodiversity, Los Angeles (UCLA), CA
- 2002 UC-Toxics Marine Toxicology Symposium, Bodega Marine Laboratory, CA
- 2002 Department of Environmental Engineering Seminar Series, UC-Berkeley, CA
- 2002 Integrated Toxicology Program, Duke University Durham, NC
- 2002 Department of Biological Sciences, Redlands University, Redlands, CA
- 2002 Toxicology Program; University of California, Irvine, Irvine, CA
- 2003 CWEA Specialty Topics Conference on Emerging Pollutants Endocrine Disrupting Chemicals/Pharmaceuticals, El Camino Country Club, Oceanside, CA
- 2003 Southern California Association of POTWs. Emerging Pollutants, OCSD, Fountain Valley, CA
- 2003 California Association of Sanitation Agencies; Emerging Pollutants, Yosemite, CA
- 2003 Australian Society of Ecotoxicology Regional Chapter Meeting, Sydney, Australia
- 2003 Department of Chemistry Woolongong University, Woolongong, Australia
- 2003 CSIRO Center of Analytical Chemistry Adelaide, Australia
- 2004 University of California Water Resources Research Institute Board of Directors Meeting, Ontario, CA.
- 2004 International Society of the Study of Xenobiotics Symposia on Environmental Xenobiotic Metabolism Vancouver, British Columbia, Canada
- 2004 Coastal Marine Toxicology Symposium, UC-Davis, Bodega Marine Laboratory, Bodega Bay, CA.
- 2004 VIII Brazilian Ecotoxicology Meeting, Florianopolis, Brazil

- 2004 Department of Zoophysiology University of Gothenburg, Gothenburg, Sweden
- 2005 Orange County Sanitation District "Fate of Pharmaceuticals in the Environment" Fountain Valley, CA
- 2005 Schools of Pharmacy and Environmental Health, University of Washington, Seattle, WA
- 2005 3<sup>rd</sup> International Conference of Ecological Chemistry, Chisinau, Moldova
- 2005 Texas Institute of Environmental and Human Health, Texas Tech University, Lubbock, TX
- 2005 Canadian Rivers Institute, University of New Brunswick, St. John, Canada
- 2005 Department of Biology California State University at Long Beach, Long Beach, CA
- 2005 Integrated Graduate Program, University of Turku, Turku Finland.
- 2005 Industrial Environmental Association/California Manufacturers & Technology Association Conference (Dec 15) San Diego, CA
- 2006 California Water Environment Association's Emerging Contaminants: Endocrine Disrupting Compounds (EDCs) and Pharmaceutical and Personal Care Products (PPCPs) in Wastewater One –Day Specialty Conference January 12, at Los Angeles County Sanitation Districts, Whittier, CA
- 2006 California Water Environment Association's Emerging Contaminants:
  Endocrine Disrupting Compounds (EDCs) and Pharmaceutical and Personal Care
  Products (PPCPs) in Wastewater One –Day Specialty Conference January 18, at
  Central Contra Costa Sanitary District, Martinez, CA
- 2006 American Chemical Society Western Region, Jan 24, Orange, CA
- 2006 Aquatic Toxicology Course, California State University at Long Beach March 14, Long Beach, CA
- 2006 Department of Chemistry, University of California, Riverside, CA May 5.
- 2006 Santa Ana Regional Water Quality Control Board, Riverside, CA July 20.
- 2006 World Oceans Conference, Long Beach, CA September 19.
- 2006 Physicians for Social Responsibility, Metropolitan Water District, Los Angeles, CA September 28.
- 2006 Aquatic Toxicity Workshop on Selenium, Jaspar, Alberta October 1-5.
- 2006 Department of Zoology, University of Miami, Ohio. October 12.
- 2006 Department of Molecular and Environmental Biology, Hanyang University Seoul, South Korea October 17.
- 2006 Department of Biology Korean University, Seoul, South Korea. October 18.
- 2006 Environmental Toxicology Program, University of Mississippi, Oxford, MS October 27.
- 2006 Orange County Water District Science Advisory Board, Anaheim, CA November 14
- 2007 Workshop on Trace Organics: Mapping a Collaborative Research Roadmap. WERF, Hyatt Regency Hotel, San Francisco, CA May 17-18.
- 2007 Pharmaceuticals and Personal Care Products in the Environment Symposium, California EPA Department of Toxic Substances Control, Sacramento, CA May 22.
- 2007 5<sup>th</sup> International Conference on Marine Pollution and Ecotoxicology, City University of Hong Kong June 3-6.
- 2007 Guangzhou Institute of Geochemistry Chinese Academy of Sciences

- Guangzhou, China June 7.
- 2007 Recursos del Mar, Cinvestav, Unidat Merida, Mexico July 24.
- 2007 CSU-Environmental Physiology and Toxicology Workshop, Catalina Island Nov 9-21
- 2008 Symposium of Molecular Chirality 2008, Okayama University, Japan May 22-23
- 2008 Puschino State University, Moscow, Russia May 27
- 2008 Southern Nevada Water Authority, Las Vegas, NV August 19.
- 2008 National Center for Ecological Analysis and Synthesis, Santa Barbara, CA Sept 4.
- 2008 Plenary Speaker, Calfed Bay Delta Annual Symposium, Sacramento, CA Oct 22.
- 2009 Invited Speaker: State of the Science. Managing Contaminants of Emerging Concern in California: A Workshop to Develop Processes for Prioritizing, Monitoring, and Determining Thresholds of Concern April 28-29, 2009 Costs Mesa, CA
- 2009 Invited Speaker Micropol & Ecohazard 2009; 6<sup>th</sup> International Water Association/Groundwater Resources Association of California Specialized Conference on Assessment and Control of Micropollutants/Hazardsous Substances in Water, San Francisco, CA June 10.
- 2010 Invited Speaker Santa Ana Watershed Project Authority; Jan 21, 2010. Riverside, CA
- 2010 Invited Speaker College of Veterinary Medicine, Oklahoma State University, Stillwater, OK Jan 26, 2010.
- 2010 Invited Speaker American Chemical Society, Emerging Contaminants in California's Coastal and Estuarine Ecosystems San Francisco, CA Mar 25, 2010
- 2010 Invited Speaker Department of Zoology, Southern Illinois University, Carbondale, IL Apr 22, 2010.
- 2010 Invited Speaker: Department of Pesticide Regulation, Sacramento CA May 10, 2010
- 2010 Invited Speaker: California Green Chemistry Workshop; Indicators of Ecotoxicity Hazards and Exposure Potential, Office of Environmental and Human Health Assessment, Berkeley, CA May 11, 2010
- 2010 Invited Speaker: Northern California Society of Environmental Toxicology and Chemistry, Berkeley, CA May 13, 2010
- 2010 Invited Speaker Interagency Ecological Program Symposium, Sacramento State University, Sacramento, CA May 25, 2010.
- 2010 Webinar California Water Quality Monitoring Collaboration Network, May 27, 2010
- 2010 6<sup>th</sup> International Conference on Marine Pollution and Ecotoxicology, City University of Hong Kong May 31-June 3.
- 2010 International Workshop on Emerging Contaminants, Xiamen University Dec 14-15.
- 2010 Department of Biochemistry, Chinese University of Hong Kong Dec 16.
- 2011 Environmental and Occupational Health Department Technical Symposium on Pharmaceuticals and Personal Care Products in Water Supplies: Potential Impacts and Sustainable Solutions, California State University of Northridge Feb 16.
- 2011 Society of Toxicology Special Symposium: Emerging Issues at the Intersection of Reproductive and Mixtures Toxicology, Washington DC. Mar 7-10.
- 2011 Department of Environmental Sciences, Baylor University Mar 17

# 2011 Department of Biology University of Alberta, Edmonton, Canada Apr 6.

### **GRANTS**

### **CURRENT SUPPORT**

- ---National Institutes of Environmental Health Science: Superfund Basic Research (University of Washington PI) Impact of hypersaline water on pesticide activation in Coho Salmon co-PI 2009-2014 \$310,000.
- --Bay Delta Science Program (University of California, Berkeley PI) Impact of urbanization on Chinook salmon, steelhead trout, and their prey: a case study of the American River. Co-PI 2011-2013 \$55,000

# PAST SUPPORT

- --Arkansas Science and Technology Authority: Basic Science "Metabolism of Off-Flavor Chemicals in Channel Catfish". PI 1992-1993 \$36,780.
- --USFDA "Efficacy of Copper Sulfate in Channel Catfish for the Treatment of Tetrahymena Infestations". PI 1993-1994 \$33,250.
- --Marine Biological Association of United Kingdom Scientific Fellowship "Role of Flavin-containing Monooxygenase in osmoregulation". PI 1993-1994 \$3,000.
- --UAMS Pilot Study Award "Use of Metallothionein as a Biomarker for Heavy Metal Contamination of Aquatic Ecosystems". PI 1993 \$9,000.
- --Arkansas Science and Technology Authority/Southern Farmer Services--Applied Science "Potential Feed Additives for Off-Flavor in Catfish". PI 1994-1996 \$54,000.
- --University of Mississippi Faculty Small Grant Award "Effect of Arsenic on Metallothionein Expression in Channel Catfish". PI 1995 \$3,000.
- --USFDA "Efficacy of Copper Sulfate in Channel Catfish for the Treatment of Ichthyopthirius Infestations". PI 1995-1996 \$31,441.
- --Southern Farmers Services, Inc. "Enhancing the Elimination of Off-Flavor from Channel Catfish: A Biochemical Approach". PI 1995-1997 \$52,000.
- --United States Environmental Protection Agency "Mississippi EPSCOR Program: Co-PI 1995-1997 \$548,784.
- --University of California at Davis Subcontract "Analysis of metallothionein and copper in rainbow trout". PI 1996-1997 \$7,542.

- --United States Department of Agriculture "Reduction of 2-Methylisoborneol uptake and induction of MIB metabolism and elimination in catfish". PI 1996-1999 \$60,000.
- --Marine Biological Association of United Kingdom Scientific Fellowship "Role of Flavin-containing Monooxygenase in Osmoregulation". PI 1997 \$1,000.
- --National Institutes of Health "Initiative for Minority Student Development" Co-PI 1997-1998 \$467,704.
- --Marine Biological Association of United Kingdom Scientific Fellowship "Role of Flavin-containing Monooxygenase in Osmoregulation". PI 1998 \$1,000.
- --Hudson River Foundation "Assessment of Environmental Estrogens in the Hudson River drainage system" PI 1998-1999 \$78, 054.
- --United States Geological Survey; Mississippi Water Resource Institute "Assessment of Environmental Estrogens in wastewater: Potential for developmental and Reproductive Toxicity in Fish" PI 1997-2000 \$157,683.
- --United States Department of Agriculture "Environmental Assessment for the Use of Copper in Fish Aquaculture" PI 1997-2001 \$48,609.
- --United States Department of Agriculture "Toxicological Evaluation of a Cyanobacteria-Specific Biocide. Co-PI 2000-2001 \$22,578.
- --Louisiana Crayfish group "Fipronil Toxicity Testing the Crawfish (*Procambrius clarki*)" 2000-2001 PI \$46,922.
- --United States Environmental Protection Agency "Effects of interacting stressors in agricultural ecosystems: mesocosm and field evaluation of multi-level indicators of wetland responses" Co-PI 1998-2001 \$897,634
- --United States Environmental Protection Agency "Mechanism of salinity induced toxicity of aldicarb in euryhaline fish" PI 1997-2001 \$263,149.
- --New York SEAGRANT "Estrogenicity of Municipal Sewage Treatment Plant Effluents: Vitellogenic and Estrogen Receptor Responses in Striped Bass" Co-PI 2000-2001 \$239,151\*
- --University of California, Division of Agriculture and Natural Resources Hatch Funds "Relationships between salinity and pesticide accumulation in biota" 2001-2002 PI-\$8,500.
- --Southern California Coastal Water Research Project, "Threshold response of salmonid fish to dietary selenium for TMDL implementation" PI- 2001-2002. \$17,370\*

- --University of California Institute for Mexico and the United States (UC-MEXUS) "Effects of contaminants present in the Colorado River Delta on nest success of yuma clapper rails (*Rallus longirostris yumanensis*) and burrowing owls (*Speotyto cunicularia*) Co-PI 2001-2002 \$25,000.
- --United States Civilian Research and Development Foundation "Research on the current status of Biodiversity and Water Quality in Dniester River, Moldova" Co-PI 2001-2002 \$35,000.
- --Coastal Marine Institute- Minerals Management Service "Use of Biological Endpoints in Flatfish to Establish Sediment Quality Criteria for Polyaromatic Hydrocarbon Residues and Assess Remediation Strategies" PI-2001-2003 \$129,492.
- --Hudson River Foundation. "Characterization of Estrogenic Effluent from Yonkers, NY: Determining the Composition and Potency of Estrogenic Chemicals." 2002-2003 CoPI-\$72,910.
- --University of California Marine Council "Environmental Monitoring and Assessment of Environmental Estrogens in Marine Sediments of California" PI- 2002-2004 \$443,379. (Co-PIs; David Sedlak, Ron Tjeerdema).
- --University of California Water Resources Institute "Use of Bioassays to Assess the Water Qualtiy of Wastewater Treatment Plants for the Occurrence of Estrogens and Androgens. 2002-2004 \$58,000
- --San Francisco Estuarine Institute "Effects of nonylphenol on the estrogenic activity of selected aquatic pesticides" PI-2003-2005 \$33,980.
- --UC Mexus "Effects of contaminants on shellfish fisheries of Baja California Sur" Co-PI 2004-2005 \$10,000.
- --Water Environment Research Foundation "Use of Japanese Medaka as an On-Line Screening Platform for the Evaluation of Potable Water" PI-2003-2006 \$309,868. (Co-PIs; David Hinton; Greg Woodside).
- --Civilization Research Defense Fund (Department of Defense) "Accumulation and effects of Trace Elements on Fish Growth and Development" PI-2005-2007 \$30,000.
- --Southern California Coastal Research Project "Vitellogenin and Histopathology Endpoints in Hornyhead turbot from the Southern California Bight" PI-2007-2008 \$72,000
- --Orange County Sanitation District "Utilization of Sublethal Endpoints Across Biological Hierarchies to Evaluate Impacts of Wastewater on Fishery Health" PI-2005-2008 \$150,000.
- --USDA/NRI "Enantioselectivity of Current Chiral Insecticides in Soil and Sediment Environment" Co-PI 2005-2008 \$405,000 (PI- Jay Gan).

- --National Institutes of Health Superfund (University of Washington PI) Impact of hypersaline water on pesticide activation in Coho Salmon co-PI 2006-2009 \$135,000.
- --Southern California Coastal Research Project "Vitellogenin in Hornyhead turbot from the Southern California Bight" PI-2009 \$8,400
- --US Army Corp of Engineers "Do ordinance related compounds affect the endocrine system in reptiles?" PI- 2007-2009 \$100,000.
- --Calfed Bay Delta Program "Identifying the Causes of Feminization of Chinook Salmon in the Sacramento and San Joaquin River system: Co-PI- 2006-2010 \$1,200.000 (PI-David Sedlak).
- ---California Department of Water Resources (Michael Anderson PI) Specialized environmental, biological, and technical support for activities related to development of Species Conservation Habitat (SCH) at the Salton Sea.; co-PI 2010-2011 \$92,404.

# **PUBLICATIONS**

- 1. D. Schlenk and W.H. Gerwick (1986) Dilophic acid, a diterpenoid from the tropical brown seaweed (*Dilophus guineensis*). Phytochemistry 26: 1081-1084.
- 2. D. Schlenk and D.R. Buhler (1988) Cytochrome P-450 and Phase II activities in the gumboot chiton, (*Cryptochiton stelleri*). Aquatic Toxicology 13:167-182.
- 3. D. Schlenk and D.R. Buhler (1989) Determination of multiple forms of cytochrome P 450 in microsomes from the digestive gland of (*Cryptochiton stelleri*). Biochemical and Biophysical Research Communications 163:476-480.
- 4. D. Schlenk and D.R. Buhler (1989) Xenobiotic biotransformation in the Pacific oyster (*Crassostrea gigas*). Comparative Biochemistry and Physiology 94C:469-475.
- 5. D. Schlenk and D.R. Buhler (1990) Flavin-containing monooxygenase activity in the gumbot chiton (*Cryptochiton stelleri*). Marine Biology 104:47-50.
- 6. D. Schlenk and D.R. Buhler (1990) The in vitro biotransformation of 2-aminofluorene in the western oyster (*Crassostrea gigas*). Xenobiotica 20:563-572.
- 7. D. Schlenk, P. Garcia and D.R. Livingstone (1991) Studies on myleoperoxidase activity in the common mussel (*Mytilus edulis*, L.). Comparative Biochemistry and Physiology 99C:63-68.
- 8. D. Schlenk and D.R. Buhler (1991) Flavin-containing monooxygenase activity in the rainbow trout (*Onchorynchus mykiss*). Aquatic Toxicology 20:13-24.

- 9. D. Schlenk and M. Brouwer (1991) Isolation of three copper metallothionein isoforms in the blue crab (*Callinectes sapidus*). Aquatic Toxicology 20:25-34.
- 10. D. Schlenk and D.R. Buhler (1991) Role of flavin-containing monooxygenase in the in vitro biotransformation of aldicarb in the rainbow trout (*Onchorynchus mykiss*). Xenobiotica 21:1583-1589.
- 11. D. Schlenk, D. Erickson, J.J. Lech and D.R. Buhler (1992) The in vivo disposition and biotransformation of aldicarb in rainbow trout (*Onchorynchus mykiss*). Fundamental and Applied Toxicology 18:131-136.
- 12. M. Brouwer, D. Schlenk, A. Ringwood, T. Hoexum-Brouwer (1992) Metal-specific induction of metallothionein isoforms in the blue crab (*Callinectes sapidus*) in response to single and mixed-metal exposure. Archives of Biochemistry and Biophysics 294:461-468.
- 13. D. Schlenk, A.R. Ringwood, T. Brouwer-Hoexum and M. Brouwer (1993) Crustaceans as models for metal metabolism: II. Induction and characterization of metallothionein isoforms from the blue crab (*Callinectes sapidus*). Marine Environmental Research 35:7-11.
- 14. D. Schlenk and D.R. Buhler (1993) Immunological characterization of flavin-containing monooxygenases in the liver of rainbow trout (*Oncorhynchus mykiss*): sexual-and-age-dependent differences, and the effect of trimethylamine on enzyme regulation. Biochimica Biophysica. Acta 1156:103-106.
- 15. D. Schlenk and M. Brouwer (1993) Induction of metallothionein mRNA in blue crabs treated with cadmium. Comparative Biochemistry and Physiology 104C:317-321.
- 16. D. Schlenk, M.J.J. Ronis, C.L. Miranda and D.R. Buhler (1993) Channel catfish liver monooxygenases: immunological characterization of constitutive cytochromes P450 and absence of active flavin-containing monooxygenases. Biochemical Pharmacology 45:217-221.
- 17. D. Schlenk (1993) A comparison of endogenous and exogenous substrates of the flavin-containing monooxygenases in aquatic organisms. Aquatic Toxicology 26:157-162.
- 18. D. Schlenk and C.T. Moore (1993) Distribution, uptake and elimination of the herbicide propanil in the channel catfish (*Ictalurus punctatus*). Xenobiotica 23:1017-1024.
- 19. D. Schlenk (1994) Effect of 2-Methylisoborneol on Cytochrome P450 expression in channel catfish (*Ictalurus punctatus*). Aquaculture 120:33-44.
- 20. U.A. Pillai, D. Schlenk, C. Frith, and P.W. Ferguson (1994) Effect of bleomycin-induced fibrosis on pulmonary metabolism of selected xenobiotics. Journal of the Louisiana State Medical Society 146:260-267.

- 21. D. Schlenk and C.T. Moore (1994) The effect of pH on the toxicity of copper sulfate to the ciliate protozoan (*Tetrahymena thermophila*). Bulletin of Environmental Contamination and Toxicoloy 53:800-804.
- 22. D. Schlenk, J. Bevers, A. Vertino, and C.E. Cerniglia (1994) Cytochrome P450-catalyzed S-oxidation of dibenzothiophene in the fungus (*Cunninghamella elegans*). Xenobiotia 24:1077-1083.
- 23. D. Schlenk and R.Li-Schlenk (1994) Characterization of liver flavin-containing monooxygenase of the smooth dogfish shark (*Squalus acanthus*) and partial purification of liver flavin-containing monooxygenase of the silky shark (*Carcharhinus falciformis*). Comparative Biochemistry and Physiology 109B:655-664.
- 24. D. Schlenk, M.J.J. Ronis, C. Miranda, and D. R. Buhler (1995) Effects of 2-methylisoborneol (MIB), and ethanol on the expression and activity of cytochrome P450s from the channel catfish (*Ictalurus punctatus*). Journal of Fish Biology 46:282-291.
- 25. L.D. Peters, D.R. Livingstone, S. Shehin, R.N. Hines, and D. Schlenk (1995) Characterization of hepatic flavin-containing monooxygenase from the turbot (*Scophthalmus maximus* L.). Xenobiotica 25:121-131.
- 26. Y.S. Zhang and D. Schlenk (1995) Induction and characterization of hepatic metallothionein expression from cadmium induced channel catfish (*Ictalurus punctatus*). Environmental Toxicology and Chemistry 14:1425-1432.
- 27. D. Schlenk, J. Nix and Y.S. Zhang (1995) Expression of hepatic metallothionein messenger RNA in feral and caged fish species correlates with residual mercury levels. Ecotoxicology and Environmental Safety. 31:282-286.
- 28. Rice, C.D. and D. Schlenk (1995) A comparision of immune function and P4501A activity following acute exposure to 3,3',4,4',5-pentachlorobiphenyl (PCB 126) in channel catfish (*Ictalurus punctatus*). Journal of Aquatic Animal Health. 7:195-204.
- 29. D. Schlenk (1995) Use of aquatic organisms as models to determine in the in vivo contribution of flavin-containing monooxygenases to xenobiotic biotransformation. Molecular Marine Biology and Biotechnology 4:323-330.
- 30. D. Schlenk, L. Peters, S. Shehin-Johnson, R.N. Hines, and D.R. Livingstone (1995) Differential expression and activity of flavin-containing monooxygenases in euryhaline and stenohaline flatfishes indicates potential osmoregulatory role. Comparative Biochemistry and Physiology 112C: 179-186.
- 31. E. Gallagher, P.L. Stapleton, D.H. Slone, D. Schlenk, and D.L. Eaton (1996) Channel catfish glutathione S-transferase isoenzyme activity toward *anti*benzo[a]pyrene-*trans* 7,8-didhydrodiol-9,10-epoxide. Aquatic Toxicology 34:135-150.
- 32. D. Schlenk (1996) Role of biomarkers in ecological risk assessment. Human and Ecological Risk Assessment 2:251-256.

- 33. D. Schlenk, E.J. Perkins, W.G. Layher and Y.S. Zhang (1996) Correlating metrics of fish health with cellular indicators of stress in an Arkansas bayou. Marine Environmental Research 42:247-251.
- 34. D. Schlenk, L.D. Peters, and D. R. Livingstone (1996) Down regulation of piscine flavin-containing monooxygenase activity by decreased salinity in euryhaline flounder (*Platichthys flesus*). Marine Environmental Research 42:339-343.
- 35. D. Schlenk, E.J. Perkins, G. Hamilton, Y.S. Zhang, and W. Layher (1996) Correlation of hepatic biomarkers with whole animal and population/community metrics. Canadian Journal of Aquatic Sciences 53:2299-2309.
- 36. D. Schlenk, L.D. Peters, and D.R. Livingstone (1996) Correlation of salinity with flavin-containing monooxygenase activity but not cytochrome P450 activity in the euryhaline fish (*Platichthys flesus*). Biochemical Pharmacology 52:815-818.
- 37. E.J. Perkins, B. Griffin, K.M. Chan, and D. Schlenk (1997) Sexual differences in mortality and sublethal stress in channel catfish following a 10 week exposure to copper sulfate. Aquatic Toxicology 37:327-339.
- 38. D. Schlenk, M. Chelius, S. Khan, and K.M. Chan (1997) Characterization of hepatic metallothionein expression in channel catfish (*Ictalurus punctatus*) by reverse transcriptase polymerase chain reaction. Biomarker 2:161-167.
- 39. B.R. Griffin, M.S. Hobbs, J.L. Gollon, D. Schlenk, F.F. Kadlubar, and C.D. Brand (1997) Effect of wateborne copper sulfate exposure on copper content of liver and axial muscle of channel catfish. Journal of Aquatic Animal Health 9:140-147.
- 40. E.J. Perkins and D. Schlenk (1997) Comparisions of uptake and depuration of 2-methylisoborneol in male, female, juvenile and 3MC-induced channel catfish. Journal of the World Aquaculture Society 28:158-164.
- 41. D. Schlenk, D. Stresser, A. Nimrod, L. Arcand and W.H. Benson (1997) Influence of B-naphthoflavone and methoxychlor pretreatment on the biotransformation and estrogenic activity of methoxychlor in channel catfish (*Ictalurus punctatus*). Toxicology and Applied Pharmacology 145:349-356.
- 42. D. Schlenk, R. Pittman, L.A. Wolford, J. Steevens, and K.M. Chan (1997) Effects of arsenate, aresenite, and the herbicide, monosodium methyl arsenate on hepatic metallothionein and lipid peroxidation in channel catfish. Comparative Biochemistry and Physiology 118C:177-183.
- 43. D. Schlenk, A. Elalfy and D.R. Buhler (1997) Down regulation of hepatic flavin-containing monooxygenase activity by 17B-estradiol in rainbow trout (*Oncorhynchus mykiss*). Comparative Biochemistry and Physiology 118C: 199-202.

- 44. D. Schlenk (1998) Invited review: Occurrence of flavin-containing monooxygenases in non-mammalian eukaryotic organisms. Comparative Biochemistry and Physiology 121C: 185-195.
- 45. D. Schlenk and C.D. Rice (1998) Effect of zinc and cadmium treatment on hydrogen peroxide-induced mortality and expression of cellular glutathione and metallothione in a teleost hepatoma cell line. Aquatic Toxicology 43:121-129.
- 46. D. Schlenk and A. El-Afy (1998) Expression of branchial flavin-containing monooxygenase is directly correlated with salinity-induced aldicarb toxicity in the euryhaline fish (*Oryzias latipes*). Marine Environmental Research 46:103-106.
- 47. D. Schlenk, D. M. Stresser, J. Rimoldi, L. Arcand, J. McCants, A.C. Nimrod, and W.H. Benson (1998) Biotransformation and estrogenic activity of methoxychlor and its metabolites in channel catfish (*Ictalurus punctatus*) Marine Environmental Research 46:159-162
- 48. C. D. Rice, D. Schlenk, J. Ainsworth, and A. Goksoyr (1998) Cross-reactivity of monoclonal antibodies against peptide 277-294 of rainbow trout CYP1A1 with hepatic CYP1A among fish. Marine Environmental Research 46:87-91.
- 49. A. El-Alfy and D. Schlenk (1998) Potential mechanisms of the enhancement of aldicarb toxicity to Japanese medaka (Oryzias latipes), at high salinity. Toxicology and Applied Pharmacology 152:175-183.
- 50. D. Schlenk, J.L. Gollon, B.R. Griffin (1998) Efficacy of copper sulfate for the treatment of ichthyophthiriosis in channel catfish. Journal of Aquatic Animal Health 10:390-396.
- 51. D. Schlenk, K.B. Davis and B. Griffin (1999) Relationship between expression of metallothionein and sublethal stress in channel catfish following exposure to copper sulfate. Aquaculture 177:367-379.
- 52. E. J. Perkins and D. Schlenk (1998) Immunochemical charaterization of hepatic cytochrome P450 isozymes in the channel catfish: assessment of sexual, developmental, and treatment-related effects. Comparative Biochemistry and Physiology 121C: 305-310.
- 53. E. J. Perkins, A. El-Alfy and D. Schlenk (1999) In vitro sulfoxidation of aldicarb by hepatic microsomes of channel catfish *Ictalurus punctatus*. Toxicological Sciences 48:67-73.
- 54. G.M. Dethloff, D. Schlenk, S.Khan and H. C.Bailey (1999) The effects of sublethal copper toxicity on rainbow trout (*Oncorhynchus mykiss*) in soft water. I. Blood and biochemical parameters. Archives of Environmental Contamination and Toxicology 36:415-423.

- 55. G.M. Dethloff, D. Schlenk, J.T. Hamm, and H.C. Bailey (1999) The effects of copper and copper/zinc mixtures on physiological parameters of rainbow trout (*Oncorhynchus mykiss*). Ecotoxicology and Environmental Safety 42: 253-264.
- 56. J.A. Steevens, M. Slattery, D. Schlenk, A. Aryl, and W.H. Benson (1999) Effects of ultraviolet light and polyaromatic hydrocarbon exposure on sea urchin development and bacterial bioluminescence. Marine Environmental Research 48: 1-19.
- 57. D. Schlenk, E.J. Perkins, W.B. Hawkins (1999) Effect of ethanol, clofibric acid and temperature on the uptake and elimination of 2-methylisoborneol in channel catfish (*Ictalurus punctatus*). Fish Physiology and Biochemistry 21:173-178.
- 58. D.Schlenk (1999) Necessity of defining biomarkers for use in ecological risk assessments. Marine Pollution Bulletin 39:48-53.
- 59. B.R. Griffin, K.B. Davis, D. Schlenk (1999) Effect of simulated copper sulfate therapy on stress indicators in channel catfish. Journal of Aquatic Animal Health 11:231-236.
- 60. E J Perkins and D.Schlenk.(2000) In vivo metabolism, acetylcholinesterase inhibition, and toxicokinetics of aldicarb in channel catfish (*Ictalurus punctatus*). Toxicological Sciences 53:308-315.
- 61. M. McArdle, A. Elskus, A. McElroy, B. Larsen, W. Benson, and D. Schlenk. (2000) Differences of estrogenic response in two species, *Fundulus heteroclitus and Morone saxatilis*. Marine Environmental Research 50:175-179.
- 62. S. Thompson, F. Tilton, D. Schlenk, and W.H. Benson. (2000) Comparative vitellogenic response in three teleost species: Extrapolation to in situ field studies. Marine Environmental Research 50: 185-189.
- 63. E. Perkins, B.C. DeBusk and D.Schlenk (2000) Isolation and characterization of a novel cytochrome P450 (CYP2 family) isoform from channel catfish. Fish Physiology and Biochemistry 22:199-206.
- 64. D.Schlenk, W.C. Colley, A. El-Alfy, and R. Kirby (2000) Effects of the Oxidant, Potassium Permanganate, on the Expression of Gill MT mRNA and its Relationship to Sub-lethal Whole Animal Endpoints in Channel Catfish. Toxicological Sciences 54:177-182.
- 65. D. L. Straus, D. Schlenk, and J. E. Chambers (2000) Hepatic microsomal desulfuration and dearylation of chlorpyrifos and parathion in fingerling channel catfish: lack of effect from aroclor 1254 Aquatic Toxicology 50:141-149.
- 66. B.C. Debusk, S. Kumir J. Rimoldi and D.Schlenk (2000) Phase I and II enzyme and activity levels in the gumboot chiton *Cryptochiton stelleri* following exposure to a dietary bromo-phenol, lanosol. Comparative Biochemistry and Physiology 127C:133-142.

- 67. D. Schlenk, E.J. Perkins, and B.C. DeBusk (2000) 2-Methylisoborneol disposition in three strains of catfish: absence of biotransformation. Fish Physiology and Biochemistry23:225-232.
- 68. D.B. Huggett, I.A. Khan, J.C. Allgood, D.S.Block, D. Schlenk. (2001) Organochlorine Pesticides and Metals in Select Botanical Dietary Supplements. Bulletin of Environmental Contamination and Toxicology. 66:150-155
- 69. A. Elalfy, S. Grisle, and D. Schlenk (2001) Characterization of Salinity-enhanced toxicity of aldicarb to Japanese medaka: sexual and developmental differences. Environmental Toxicology and Chemistry 20:2093-2098.
- 70. D.B.Huggett, D.Schlenk, and B.R. Griffin (2001) Bioavailability of Copper in a Oxic Stream Sediment Receiving Aquaculture Effluent. Chemosphere 44:361-367.
- 71. B. Larsen and D. Schlenk (2001) Effect of Salinity on Flavin-Containing Monooxygenase expression and activity in Rainbow Trout (<u>Oncorhynchus mykiss</u>). Journal of Comparative Physiology B 171: 421-429.
- 72. F. Tilton, W. H. Benson, and D. Schlenk (2001), Elevation of serum 17-β-estradiol in channel catfish following injection of 17-β-estradiol, ethynyl estradiol, estrone, estriol and estradiol-17-β-glucuronide. Environmental Toxicology and Pharmacology 9:169-172
- 73. D.Schlenk, D. Huggett, D.B, Block, D.S., Grisle, S., Allgood, J.,Bennet, E., Holder, A.W., Hovinga, R.M. Bedient, P. (2001) Toxicity of Fipronil and its Degradation Products to *Procambarus sp.*: Field and Laboratory Studies. Archives of Environmental Contamination and Toxicology 41: 325-332.
- 74. F.X. Han, J.A. Hargreaves, W.L. Kingery, D.B. Huggett, D. Schlenk (2001) Accumulation, distribution, and toxicity of copper in sediments of catfish ponds receiving periodic copper sulfate applications. Journal of Environmental Quality 30:912-919.
- 75. Beeler, A. B.; Schlenk, D.; Rimoldi, J. M. Synthesis of fipronil sulfide, an active metabolite, from the parent insecticide fipronil. Tetrahedron Lett. (2001), 42(32), 5371-5372.
- 76. J. Wang, S. Grisle, and D.Schlenk (2001) Effects of salinity on aldicarb toxicity to juvenile rainbow trout (*Oncorhynchus mykiss*) and striped bass (*Morone saxatilis x chrysops*). Toxicological Sciences 64:200-207.
- 77. I.A.Khan, J. Allgood, L.A. Walker, E.A. Abourashed, D. Schlenk, W.H. Benson (2001) Determination of heavy metals and pesticides in ginseng products. J. AOAC Int. 84: 936-939.

- 78. B.Larsen, and D. Schlenk (2002) Effect of Urea and Temperature on the Expression and Activity of Flavin-Containing Monooxygenase expression in the liver and gill of rainbow trout (*Oncorhynchus mykiss*). Fish Physiology and Biochemistry 25:19-29.
- 79. D. Schlenk, B. Furnes, X. Zhou, and B.C. Debusk (2002) Cloning and sequencing of cytochrome P450 2X1 from channel catfish (*Ictalurus punctatus*). Marine Environmental Research 54:391-394.
- 80. J. R. Todorov, A. A. Elskus, D. Schlenk, P. L. Ferguson, B. J. Brownawell, and A. E. McElroy (2002) Estrogenic Responses of Larval Sunshine Bass (*Morone saxatilis X M. chrysops*) Exposed to New York City Sewage Effluent. Marine Environmental Research 54:691-695.
- 81. F.Tilton, W.H. Benson, and D.Schlenk (2002) Evaluation of Estrogenic Activity from a Municipal Wastewater Treatment Plant with Predominantly Domestic Input. Aquatic Toxicology 61:211-224.
- 82. A. El-alfy, E. Bernache, and D. Schlenk (2002) Effects of salinity on the uptake and elimination of aldicarb in Japanese medaka Aquatic Toxicology 61:225-232.
- 83. D.Schlenk,, E. Sapozhnikova, J.P. Baquirian, and A.Z.Mason (2002) Utilization of biochemical and health endpoints in fish to guide analytical chemistry analyses of sediments. Environmental Toxicology and Chemistry 21: 2138-2145.
- 84. A. El-Alfy, B. Larsen, and D. Schlenk (2002) Effect of Cortisol and Urea on Flavin Monooxygenase Activity and Expression in Rainbow Trout, *Oncorhynchus mykiss*. Marine Environmental Research 54:275-278.
- 85. A. El-Alfy, and D. Schlenk (2002) Effects of 17-beta estradiol and testosterone on the expression of flavin contianing monooxygenase mediated toxicity of aldicarb in Japanese medaka. Toxicological Sciences 68:381-388.
- 86. D.B.Huggett, B.W. Brooks, B. Peterson, C.M. Foran, D. Schlenk. (2002) Toxicity of Select Beta-Adrenergic Receptor Blocking Pharmaceuticals (β-Blockers) on Aquatic Organisms. Archives of Environmental Contamination and Toxicology 43:229-235.
- 87. D.B. Huggett, I.A. Khan, C.M. Foran and D. Schlenk (2002) Determination of Beta-Adrenergic Receptor Blocking Pharmaceuticals in United States Wastewater Effluent Environmental Pollution 121:199-205.
- 88. D. Schlenk, X. Zhang, C. Yeung, J. Zhang, J. Cashman, A. Rettie (2002) Role of flavin-containing monoxygenases in the sulfoxidation of aldicarb in humans. Pesticide Biochemistry and Physiology 73: 67-73.
- 89. R. Riedel, D. Schlenk, D. Frank, B. Costa-Pierce (2002) Analyses of organic and inorganic contaminants in Salton Sea fish. Marine Pollution Bulletin 44:403-411.

- 90. L. A. Roy, J. L. Armstrong, K. Sakamoto, S. Steinert, E. Perkins' D. P. Lomax, L. L. Johnson and D.Schlenk (2003) The relationships of biochemical endpoints to histopathology, and population metrics in feral flatfish species collected near the municipal outfall of Orange County, CA. Environmental Toxicology and Chemistry 22:1309-1317.
- 91. B. Furnes, J., Feng, S..Sommer, and D. Schlenk (2003) Identification of novel variants of the flavin-containing monooxygenase gene family in African Americans. Drug Metabolism and Disposition 31:187-193.
- 92. J. R. Cashman K. Camp, S. S. Fakharzadeh, P. V. Fennessey, R. N. Hines, O. A. Mamer, S. C. Mitchell, G. Preti, D. Schlenk, R. L. Smith, S. S. Tjoa, D. E. Williams and S. Yannicelli (2003) Biochemical and Clinical Aspects of the Human Flavin-Containing Monooxygenase Form 3 (FMO3) Related to Trimethylaminuria. Current Drug Metabolism 4: 151-170.
- 93. D. Schlenk (2003) Use of Biochemical Endpoints to determine relationships between contaminants and impaired fish health in a freshwater stream. Human and Ecological Risk Assessment 9:59-66.
- 94. Huggett, D.B., C.M. Foran, B.Brooks, J. Weston, B.P. Peterson, E.M. Marsh, D.Schlenk (2003) Comparison of In vitro and in vivo bioassays for estrogenicity in fractionated effluent from Municipal Wastewater Effluents. Toxicological Sciences 72:77-83.
- 95. J. M. Kuhajek and D. Schlenk (2003) Effects of the brominated phenol, lanosol, on cytochrome P-450 and glutathione transferase activities in Haliotis rufescens and Katharina tunicata. Comparative Biochemistry and Physiology 134C:473-479.
- 96. V. Lattard, J. Zhang, Q., Tran, B. Furnes, D. Schlenk, , J. R. Cashman (2003) Two novel polymorphisms of the FMO3 gene in Caucasians and African American populations: Comparative genetic and functional studies. Drug Metabolism and Dispostion 31;854-860.
- 97. L.A. Roy, S. Steinert, S.M. Bay, D. Greenstein, Y. Sapozhnikova, O. Bawardi, I. Leifer and D. Schlenk (2003) Biochemical effects of PAH exposure in hornyhead turbot (Pleuronichthysverticalis) exposed to a gradient of PAH contaminated sediments collected from a natural petroleum seep in CA, USA. Aquatic Toxicology 65:159-169.
- 98. D. Schlenk, N. Zubcov, E. Zubcov (2003) Effects of salinity on the uptake, biotransformation and toxicity of dietary seleno-l-methionine to rainbow trout. Toxicological Sciences 75:309-313.
- 99. E. Zubcov, N. Boicenco D. Schlenk, L.Ungureanu, N. Zubcov, L. Biletchi, Z. Bogonin (2003) The influence of river Raut and Bic on the ecological state of the Dniester River. Buletinul Cadaemiei de Stiinte a Moldovei. Stiinte biologice, chimice si agricole. 1(290): 135-139.

- 100. E. Sapozhnikova, O. Bawardi, L.Roy, D. Schlenk, D (2004) Pesticides and PCBs in sediments and fish from the Salton Sea, California, USA. Chemosphere 55: 797-809.
- 101. K. K. Schrader, C. M. Foran, B. D. Holmes, D. K. Schlenk, N. P. D, Nanayakkara, B. T. Schaneberg (2004) Toxicological Evaluation of Two Anthraquinone-based Cyanobactericides. North American Journal of Aquaculture 66:119-124.
- 102. D. Schlenk, C. Yeung, A. Rettie (2004) Unique Stereoselective Sulfoxidation of Thioethers Indicates Novel Flavin-Containing Monooxygenase in Liver of Rainbow Trout. Marine Environmental Research 58:499-503.
- 103. B. Furnes and D.Schlenk (2004) Evaluation of Xenobiotic N- and S-oxidation by Variant Flavin-containing Monooxygenase 1 (FMO1) Enzymes. Toxicological Sciences 78: 196–203.
- 104. L. Xie, Y. Sapozhnikova, O. Bawardi, and D. Schlenk (2005) Evaluation of wetland and tertiary wastewater treatments for estrogenicity using in vivo and in vitro assays. Archives of Environmental Contamination and Toxicology 48: 82-87.
- 105. D. Schlenk, Y. Sapozhnikova, G. Cliff. (2005) Incidence of organochlorine pesticides in muscle and liver tissues of South African great white sharks *Carcharodon carcharias*. Marine Pollution Bulletin 50: 208-211.
- 106. B. Furnes and D.Schlenk (2005) Extrahepatic metabolism of carbamate and organophosphate thioether compounds by the FMO and P450 system. Drug Metabolism and Disposition 33: 214-218.
- 107. Y. Sapozhnikova, E. Zubcova, L. Ungureanu, L.Roy, D. Schlenk (2005) Evaluation of pesticides and metals in fish of the Dniester river, Moldova Chemosphere 60:196-205.
- 108. D. Vidal, S.Bay, D.Schlenk (2005) Effects of selenium accumulation on larval rainbow trout (*Oncorhynchus mykiss*). Archives of Environmental Contamination and Toxicology 49:71-75.
- 109. W. Liu, J. Gan, D. Schlenk, W. A. Jury (2005) Enantioselectivity in Environmental Safety of Current Chiral Insecticides. Proceedings of the National Academy of Sciences 102: 701–706
- 110. C. Seruto, Y. Sapozhnikova, D.Schlenk (2005) Evaluation of the Relationships Between Biochemical Endpoints of PAH Exposure and Physiological Endpoints of Reproduction in Male California Halibut (*Paralichthys californicus*) Exposed to Sediments from a Natural Oil Seep. Marine Environmental Research 69:454-465.
- 111. Y. Sapozhnikova, E. Zubcova, L. Ungureanu, S. Hungerford, D. Schlenk (2005) Evaluation of organic and inorganic compounds in sediments of the Dniester River, Moldova. Archives of Environmental Contamination and Toxicology 49:439-448.

- 112. D. Schlenk, Y. Sapozhnikova M.A. Irwin, L. Xie, W. Hwang, S. Reddy, B.J. Brownawell, J. Armstrong, M. Kelly, D. E. Montagne, E. P. Kolodziej, D. Sedlak, S.Snyder (2005) *In vivo* Bioassay Guided Fractionation of Marine Sediment Extracts from the Southern California Bight for Estrogenic Activity. Environmental Toxicology and Chemistry 24:2820-2826.
- 113. L. Xie, K. Thrippleton, M.A. Irwin, G. S. Siemering, A. Mekebri, D. Crane, K. Berry and D. Schlenk (2005). Evaluation of Estrogenic Activities of Aquatic Herbicides and Surfactants Using A Rainbow Trout Vitellogenin Assay. Toxicological Sciences 87: 391-398.
- 114. P.B. Bedient, R.D. Horsak, D.Schlenk, R.M. Hovinga, J.D. Pierson (2005) Environmental impact of fipronil to the Louisiana crawfish industry. Environmental Forensics 6: 289-299.
- 115. J. Garcia-Hernandez, Y.Sapozhnikova, D.Schlenk, Z. Mason, O. Hinojosa (2006) Evaluation of avian health in the Colorado River delta, Mexico. Environmental Toxicology and Chemistry 25:1640-1647.
- 116. M.A. Rempel, J. Reyes, S. Steinert, W. Hwang, J. Armstrong, K. Sakamoto, K. Kelley, and D. Schlenk (2006) Evaluation of Relationships Between Reproductive Metrics, Gender and Vitellogenin Expression in Demersal Flatfish Collected Near the Municipal Wastewater Outfall of Orange County, California, USA. Aquatic Toxicology 77:241-249.
- 117. J. Zha, Z. Wang, D. Schlenk (2006) Effects of pentachlorophenol on the reproduction of Japanese medaka (Oryzias latipes). Chemico-Biological Interactions 161:26-36
- 118. D. C. Hao, J. Sun, B. Furnes, D. Schlenk, M.X. Li, S. L. Yang and L. Yang1 (2006) Haplotype frequency distribution and linkage disequilibrium analysis of single nucleotide polymorphisms at the human FMO3 gene locus. Biochemical Genetics 44:391-407.
- 119. X. Deng, M. Carney, D. E. Hinton, S. Lyon, G. Woodside, C. N. Duong, S.-D. Kim, and D. Schlenk (2007) Biomonitoring Recycled Water in the Santa Ana River Basin in Southern California. Journal of Toxicology and Environmental Health 71:109-118.
- 120. X. Deng, M. A. Rempel, J. Armstrong, K. Sakamoto and D. Schlenk (2007) Seasonal Evaluation of Reproductive Status and Exposure to Environmental Estrogens in Hornyhead Turbot at the Municipal Wastewater Outfall of Orange County, CA. Environmental Toxicology 22:464-471.
- 121. L. Wang, W. Liu, C. Yang, Z. Pan, J. Gan, C. Xu, M. Zhao, Y. Ma, D. Schlenk (2007) Estrogenic potential and bioaccumulation of Bifenthrin enantiomers. Environmental Science and Technology 41: 6124-6128.

- 122. S. Raisuddin, K. W. H. Kwok, K. M. Y. Leung, D. Schlenk, J.-S. Lee (2007). The copepod *Tigriopus*: a promising marine model organism for ecotoxicology and environmental genomics. Aquatic Toxicology 83:161-173.
- 123. V.S. Gadepalli, J. M. Rimoldi, F. R. Fronczek, M. Nillos, J. Gan, X. Deng, G. Rodriguez-Fuentes, D. Schlenk (2007) Synthesis of fenthion sulfoxide and fenoxon sulfoxide enantiomers: Effect of sulfur chirality on acetylcholinesterase activity. Chemical Research in Toxicology 20:257-262.
- 124. D. C. Hao, J. Sun, B. Furnes, D. Schlenk, M.X. Li, S. L. Yang, L. Yang (2007) Allele and genotype frequencies of polymorphic FMO3 gene in two genetically distinct populations Cell Biochemistry and Function 25(4):443-53.
- 125. D.Schlenk, G. Batley, C. King, J. Stauber, M. Adams, S. Simpson, W. Maher, J. T. Oris (2007) Effects of light on microalgae concentrations and selenium uptake in bivalves exposed to selenium amended sediments. Archives of Environmental Contamination and Toxicology 53:365-370.
- 126. O. Bawardi, J. Rimoldi, and D. Schlenk (2007) Impacts of hypersaline water on the biotransformation and toxicity of fenthion on rainbow trout (*Oncorhynchus mykiss*), Striped Bass (*Morone saxatilis X Morone chrysops*) and Tilapia (*Oreochromis mossambicus*). Pesticide Biochemistry and Physiology 88:321-327.
- 127. S. Mosadeghi, B. Furnes, A.Y.O. Matsuo, D. Schlenk (2007) Expression and Characterization of cytochrome P450 2X1 in channel catfish (*Ictalurus punctatus*). Biochimica Biophysica Acta 1770:1045-1052.
- 128. M. Nillos, G. Rodriquez-Fuentes, J. Gan, D. Schlenk (2007) Enantioselective Acetylcholinesterase Inhibition of the Organophosphorus Insecticides Profenofos, Fonofos and Crotoxyphos. Environmental Toxicology and Chemistry 26:1949-1954.
- 129. B.C. DeBusk, M. Slattery, Jang-Seu Ki, Jae-Seong Lee, R. Aparicio-Fabre, D.Schlenk (2008) Species differences and effects of soft coral extracts from *Sinnularia maximus* on the expression of cytochrome P4501A and 2N in butterflyfishes (*Chaetodon* spp.). Fish Physiology and Biochemistry 34:483–492.
- 130. M. Coronado, H. De Haro, X. Deng, M. A. Rempel, R. Lavado, and D. Schlenk (2008) Estrogenic activity and reproductive effects of the UV-filter oxybenzone (2-hydroxy-4-methoxyphenyl-methanone) in fish. Aquatic Toxicology 90:182–187.
- 131. G. Rodriguez-Fuentes, R. Aparicio-Fabre, Q. Li, and D. Schlenk (2008) Osmotic Regulation of a Novel Flavin-Containing Monooxygenase in Primary Cultured Cells from Rainbow Trout (*Oncorhynchus mykiss*). Drug Metabolism and Disposition 36:1212-1217.
- 132. D.Schlenk (2008) Are steroids really the cause for fish feminization? A mini-review of in vitro and in vivo guided TIEs. Marine Pollution Bulletin 57: 250–254.

- 133. D. Schlenk, (2008) Response to: Comments on "Evaluation of Estrogenic Activities of Aquatic Herbicides and Surfactants Using a Rainbow Trout Vitellogenin Assay" Toxicological Sciences 104:231-233.
- 134. M.A. Rempel, Y.Wang, J. Armstrong, D. Schlenk (2008). Uptake of estradiol from sediment by hornyhead turbot (*Pleuronichthys verticalis*) and effects on oxidative DNA damage in male gonads. Marine Environmental Research 66: 111-112.
- 135. J.-S. Lee, S. Raisuddin, D. Schlenk and (2008) Kryptolebias marmoratus: a potential model species for molecular carcinogenesis and ecotoxicogenomics. Journal of Fish Biology 72, 1871–1889.
- 136. A. Y.O. Matsuo, E. P. Gallagher, M. Trute, P. L. Stapleton, R. Lavado, D. Schlenk (2008) Characterization of phase I biotransformation enzymes in coho salmon (*Oncorhynchus kisutch*). Comparative Biochemistry and Physiology 147C:78-84.
- 137. G. Rodriguez Fuentes, J. Armstrong, D. Schlenk (2008) Characterization of muscle cholinesterases from two demersal flatfish collected near a municipal wastewater outfall in Southern California. Ecotoxicology and Environmental Safety 69: 466-471.
- 138. R. Lavado, J.E. Loyo-Rosales, E. Floyd, E.P. Kolodziej, S.A. Snyder, D.L. Sedlak, and D. Schlenk (2009). Site-specific profiles of estrogenic activity in agricultural areas of california's inland waters. Environmental Science and Technology 43: 9110-9116.
- 139. S. K. Krueger, M. C. Henderson, L. K. Siddens, J. E. VanDyke, A. D. Benninghoff, P. A. Karplus, B. Furnes, D. Schlenk, and D. E. Williams (2009) Characterization of Sulfoxygenation and Structural Implications of Human Flavin-Containing Monooxygenase Isoform 2 (FMO2.1) Variants S195L and N413K. Drug Metabolism and Disposition 37:1785–1791.
- 140. K.L. Richardson, G. Gold Bouchot, D.Schlenk (2009). The characterization of cytosolic glutathione transferase from four species of sea turtles loggerhead (*Caretta caretta*), green (*Chelonia mydas*), olive ridley (*Lepidochelys olivacea*), and hawksbill (*Eretmochelys imbricata*). Comparative Biochemistry and Physiology 150: 279–284.
- 141. M.G. Nillos, S. Qin, C. Larive, D.Schlenk and J. Gan (2009) Epimerization of Cypermethrin Stereoisomers in Alcohols. Journal of Agricultural and Food Chemistry 57: 6938-6943.
- 142. X. Yi, E. Kim, H-J. Jung, D. Schlenk, and J. Jung (2009) A toxicity monitoring study on identification and reduction of toxicants from a wastewater treatment plant. Ecotoxicology and Environmental Safety 72:1919–1924.
- 143. M. G. Nillos, K. Lin, J. Gan, S. Bondarenko, and D. Schlenk (2009) Enantioselectivity in fipronil aquatic toxicity and degradation. Environmental Toxicology and Chemistry 28: 1825-1833.

- 144. C. N. Duong, D. Schlenk, N. I. Chang, and S. D. Kim (2009) The effect of particle size on the bioavailability of estrogenic chemicals from sediments. Chemosphere 76:395-401.
- 145. G. Rodriguez-Fuentes, C. Coburn, M. Currás-Collazo, G. Guillén D. Schlenk (2009) Effect of hyperosmotic conditions on flavin-containing monooxygenase activity, protein and mRNA expression in rat kidney. Toxicology Letters 187:115-118.
- 146. M. A. Rempel, H. Hong, Y. Wang, X. Deng, J. Armstrong, J. Gully, D. Schlenk (2009) Site-specific effects of 17  $\beta$ -estradiol in hornyhead turbot (Pleuronichthys verticalis) collected from a wastewater outfall and reference location. Environmental Research 109: 552-558.
- 147. K.N. Baer, S. Mosadeghi, and D.Schlenk (2009) The effects of pulp and paper mill effluents on the immune status of juvenile largemouth bass. Drug and Chemical Toxicology 32: 59-67.
- 148. M. A. Rempel, B. Hester, H. DeHaro, H. Hong, Y. Wang and D. Schlenk (2009) Effects of 17β-Estradiol, and its metabolite, 4-hydroxyestradiol on fertilization, embryo development and oxidative DNA damage in sand dollar (*Dendraster excentricus*) sperm. Science of the Total Environment 407: 2209-2215.
- 149. R. Lavado, J. M. Rimoldi, D. Schlenk (2009) Mechanisms of fenthion activation in rainbow trout (Oncorhynchus mykiss) acclimated to hypersaline environments. Toxicology and Applied Pharmacology 235:143-152.
- 150. M. E. Baker, B. Ruggeri, J. Sprague, C. Eckhardt, J. Lapira, I. Wick, L. Soverchia, M. Ubaldi, A. M. Polzonetti-Magni, D. Vidal-Dorsch, S. Bay, J. R. Gully, K. Kelley, D. Schlenk, E. C. Breen, R. Šášik and G. Hardiman (2009) Analysis of Endocrine Disruption in Southern California Coastal Fish using an Aquatic Multi-Species Microarray. Environmental Health Perspectives 117:223-230.
- 151. C.N.Duong, J.S. Ra, D. Schenk, S. D. Kim, H. K. Choi, S. D. Kim. (2010) Sorption of estrogens onto different fractions of sediment and its effect on vitellogenin expression in male Japanese medaka. Archives of Environmental Contamination and Toxicology, 59:147-156.
- 152. M.G. Nillos, J.Gan,, and D. Schlenk (2010) Chirality of Organophophorus Pesticides: Analysis and Toxicity. Journal of Chromatography B 878:1277–1284.
- 153. K.L. Richardson, D.Schlenk (2010). Polychlorinated biphenyls and biotransformation enzymes in three species of sea turtles from the Baja California peninsula of Mexico. Archives of Environmental Contamination and Toxicology 58:183-193.

- 154. M.G. Nillos, S. Chajkowski, J. Rimoldi, J. Gan, R. Lavado, D.Schlenk (2010) Stereoselective biotransformation of permethrin to estrogenic metabolites in fish. Chemical Research in Toxicology 23:1568-1575.
- 155. R. Lavado, D.Schlenk (2011) Microsomal biotransformation of chlorpyrifos, parathion and fenthion in rainbow trout (*Oncorhynchus mykiss*) and coho salmon (*Oncorhynchus kisutch*): mechanistic insights into interspecific differences in toxicity. Aquatic Toxicology 101: 57-63.
- 156. K. Richardson, D.Schlenk (2011) Biotransformation of 2,2',5,5'-tetrachlorobiphenyl (PCB 52) and 3,3',4,4'-tetrachlorobiphenyl (PCB 77) by liver microsomes from four species of sea turtles. Chemical Research in Toxicology 24: 718-725.
- 157. R. Lavado, L. Maryoung, D.Schlenk (2011) Hypersalinity Acclimation Increases the Toxicity of the Insecticide Phorate in Coho Salmon (*Oncorhynchus kisutch*). Environmental Science and Technology 45: 4623-4629.
- 158. N. L. Scholz, E. Fleishman, L. Brown, I. Werner, M. L. Johnson, M. L. Brooks, C. L. Mitchelmore, and D. Schlenk (2011) A perspective on modern pesticides, pelagic fish declines, and unknown ecological resilience in highly managed ecosystems. Bioscience (in press).
- 159. D. Schlenk and R. Lavado (2011) Impacts of climate change on hypersaline conditions of estuaries and xenobiotic toxicity. Aquatic Toxicology (in press)
- 160. R. Lavado, D. Shi, and D. Schlenk (2011) Effects of salinity on the toxicity and biotransformation of l-selenomethionine in Japanese medaka (Oryzias latipes) embryos: Mechanisms of oxidative stress. Aquatic Toxicology (in press).
- 161. X. Chen, L. Li, J. Cheng, L. L. Chan, D.-Z. Wang, K.-J.Wang, M. E. Baker, G. Hardiman, D. Schlenk, S. H. Cheng (2011) Molecular staging of marine medaka: A model organism for marine ecotoxicity study. Marine Pollution Bulletin (in press).

# **BOOK CHAPTERS**

- 1. D. Schlenk (1990) Dimethylaminoethanol. In: *Ethel Browning's Toxicity and Metabolism of Industrial Solvents*; *Nitrogen and Phosphorus Solvents* (D. R. Buhler and D. J. Reed, editors). Second edition; Elsevier, New York Vol 2 pp 417-421.
- 2. D. Schlenk (2001) Mechanisms of Cellular Injury. In: *Target Organ Toxicity in Marine and Freshwater Teleosts* (D.Schlenk, and W.H. Benson editors) Volume II Taylor and Francis Publishers, Washington DC 1-25.

- 3. D. Schlenk and R. Di Guilio (2002) Biochemical responses as indicators of aquatic ecosystem health. In *Biological Indicators of Aquatic Ecosystem Stress* (S.M. Adams editor) American Fisheries Society: Bethesda, MD pp 13-42.
- 4. D. Schlenk (2005) Biotransformation of Pesticides IN: Biochemical and Molecular Biology of Fishes Vol. 6 Environmental Toxicology volume (editors T.W. Moon and T.P. Mommsen) Elseiver, New York pp171-190.
- 5. Y. Sapozhnikova, A. Mcelroy, S. Snyder and D. Schlenk (2005) Estrogenic activity measurement in wastewater using in vitro and in vivo methods In: *Techniques of Aquatic Toxicology* Lewis Publishers; Boca Raton, FL. pp465-478.
- 6. D. Eaton, E. Gallagher, M. Hooper, D. Schlenk, P.Schmeider, C. Thompson (2007) Species differences in response to toxic substances: Shared Pathways of Toxicity; Value and limitations of omics technologies to elucidate mechanism / mode of action. In: *Emerging Molecular and Computational Approaches for Cross-Species Extrapolations* (W.H. Benson, R.T. Di Giulio Eds) Society of Environmental Toxicology and Chemistry (SETAC) Press: Pensacola, FL pp. 77-101.
- 7. D. Schlenk, W.H. Benson, S. Steinert, R.Handy and M.Depledge (2008) Biomarkers In: *The Toxicology of Fishes* (R. Di Giulio and D. Hinton editors). Taylor and Francis Publishers, Washington DC pp 683-731.
- 8. D.Schlenk, M. Celander, E. Gallagher, S.George, M.James, S. Kullman, P. van den Hurk, K. Willett (2008) Biotransformation in Fishes In: *The Toxicology of Fishes* (R. Di Giulio and D. Hinton editors). Taylor and Francis Publishers, Washington DC pp 153-234.
- 9. M.G.Nillos, J. Gan, D. Schlenk (2008) Chemical Analysis and Enantioselective Toxicity of Pyrethroids. In: *Synthetic Pyrethroids: Occurrence and Behavior in Aquatic Environments.* (J.Gan, F. Spurlock, P. Hendley, D. Weston editors). ACS Symposium Series 991. American Chemical Society, Washington DC pp 400-414.
- 10. M.A. Rempel D.Schlenk (2008) Effects of Environmental Estrogens and Antiandrogens on Endocrine Function, Gene Regulation, and Health in Fish. IN: International Review of Cell and Molecular Biology (Kwang Jeon ed) Elsevier: Amsterdam 267 pp251-296.
- 11. M.G. Nillos, J. Gan, D.Schlenk (2010) Effects of Chirality on Toxicity In: *General and Applied Toxicology*, 3rd edition.(B Ballantyne, T C Marrs, T Syversen Editors) London: MacMillan Volume 2: p 621-641.
- 12. D. Bulloch, R. Lavado, D.Schlenk (2010) Bioassay guided Fractionation (Toxicity Identification and Evaluation) for the determination of estrogenic agents in environmental samples. In *Emerging Contaminants: Pharmaceuticals, Personal Care Products and Organohalogens* (R. Halden editor). ACS Symposium Series 1048. American Chemical Society, Washington DC pp 519-537.

### PEER-REVIEWED REPORTS

- 1. W.H. Benson, D. Schlenk, F. Tilton, T.W. Schultz and A.C. Layton (2000) Assessment of environmental estrogens in wastewater: potential for developmental and reproductive toxicity in fish. US Department of the Interior # GR-02679-17
- 2. D. Schlenk (2001) An ecological risk assessment of copper sulfate use in aquaculture. USDA/ARS.
- 3. D.Schlenk, D. Hinton, G. Woodside (2006) Online Methods For Evaluating The Safety Of Reclaimed Water. Water Environment Research Foundation 01-HHE-4A.
- 4. S. Snyder, C. Lue-Hing, J. Coruvo, J.E. Drewes, A. Eaton, R.C. Pleus, D.Schlenk (2010) Pharmaceuticals in the Water Environment. National Association of Clean Water Agencies/Association of Metropolitan Water Agencies.

### **EDITED BOOKS**

- 1. D. Schlenk and W.H. Benson (2001) *Target Organ Toxicity in Marine and Freshwater Teleosts* Volume 1. Taylor and Francis Publishers, Washington DC.
- 2. D. Schlenk and W.H. Benson (2001) *Target Organ Toxicity in Marine and Freshwater Teleosts* Volume 2. Taylor and Francis Publishers, Washington DC.

# **EDITORIALS**

- 1. M. Nikinmaa, D. Schlenk (2006) Editorial. Aquatic Toxicology 80: 205-206.
- 2. M. Nikinmaa, D. Schlenk, (2008) Call for Papers for Special Issues of Aquatic Toxicology. Aquatic Toxicology 88: 153.
- 3. M. Nikinmaa, D. Schlenk, (2009) Editorial. Amphibian Toxicology Aquatic Toxicology 91: 101.
- 4. M. Nikinmaa, D. Schlenk (2009) Editorial Aquatic Toxicology 92: 113.
- 5. D. Schlenk and M. Nikinmaa (2009) Preface Zebrafish Issue. Aquatic Toxicology 95: 257.
- 6. M. Nikinmaa and D. Schlenk (2010) Editorial: Use of phrases. Aquatic Toxicology 97: 1-2.
- 7. M.Nikinmaa and D. Schlenk (2010) Editorial: Genomics in Aquatic Toxicology 97:

173.

8. D. Schlenk and M.Nikinmaa (2010) Preface for Nanomaterials in Aquatic Toxicology 100:139.