

Thursday, April 15

08.00	Registration opens	
09.00	Welcome by Anders Goksøyr and opening of symposium by the Dean of the Faculty of Mathematics and Natural Sciences, Dag Rune Olsen	
	Environmental toxicogenomics, toxicoproteomics and systems biology approaches I Chair persons: Anne-Katrine Lundebye Haldorsen & Ketil Hylland	
09.15	Toxicogenomic tools for ecotoxicology: microarray analysis of fish in contaminated field sites <i>Nancy Denslow</i>	INV01
10.00	How useful are microarrays for ecotoxicological testing and environmental monitoring? <i>Knut Erik Tollefsen, Steve Brooks, Eivind Farmen, Hanne Fosnes, Bjørn Henrik Hansen, Tore Høgåsen, Mie L. Jareid, Stine Kooyman, Karina Petersen, Brit Salbu, You Song, Bjørn Olav Rosseland</i>	PL01
10.15	A transcriptomics approach to assess effects of four contaminants (2,3,7,8-TCDD, CB-153, BDE-47 and HBCD) commonly found in seafood <i>Carroll TS, Rasinger JD, Reffatto V, Tassinari R, Altieri I, Maranghi F, Moracci G, Patriarca P, Haave M, Mantovani A, Menditto A, Macri A, Lundebye AK, Hogstrand C</i>	PL02
10.30	Coffee break	
10.50	Effects of dietary exposure of oil-contaminated <i>Calanus finmarchicus</i> on Atlantic herring (<i>Clupea harengus</i>) <i>Pål A. Olsvik, Rune Waagbø, Sonnich Meier</i>	PL03
11.05	Zebrafish as a model for effect studies of persistent organic pollutants (POPs) <i>Vidar Berg, Camilla Almaaås, Rasoul Nourizadeh-Lillabadi, Benedicte Stavik, Elianne Egge, Jannicke Moe, Kjetill S. Jakobsen, Tom Andersen, Mona Aleksandersen, Nina Hårdnes, Elisabeth Lie, Nils Chr. Stenseth, Janneche Utne Skåre, Peter Alestrøm, Erik Ropstad, Jan L. Lyche</i>	PL04
11.20	iCod: integrative environmental genomics of cod (<i>Gadus morhua</i>); the proteomics approach <i>Odd André Karlsen, Silje Bjørneklett, Karin Berg, Marianne Brattås, Victor Zgoda, Ingvar Eidhammer and Anders Goksøyr</i>	PL05
11.35	Accumulation of PCDDs/Fs in Atlantic cod (<i>Gadus morhua</i>) and SPMDs in a Norwegian fjord influenced by a magnesium smelter, including possible biological effect responses and an evaluation of accumulation directly from water compared to diet <i>John Arthur Berge, Ketil Hylland, Anders Ruus, Martin Schlabach</i>	PL06
11.50	Effects of contaminants (PBDE, PCB and MeHg) and nutrients (selenium and DHA) commonly found in seafood on gene expression and neurodevelopment in perinatally exposed mice <i>Haave Marte, Jayashankar Shalini, Bernhard Annette, Brattlid Trond, Glover Chris N, Hogstrand Christer & Lundebye Anne -Katrine</i>	PL07
12.05	Lunch and poster session	

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Challenges in Arctic environments/Emerging contaminants

Chair persons: Elisabeth Lie & Augustine Arukwe

13.15	Arctic ecotoxicology - an overview	INV02
	<i>Heli Routti</i>	
13.45	Comparative study on the effects of toxicants on Atlantic and Arctic copepods	PL08
	<u>Hansen BH</u> , Altin D, Nordtug, T, Rørvik SF, Øverjordet IB & Olsen AJ	
14.00	Halogenated organic compounds (HOCs) in wild living terrestrial mammals in Svalbard, Norway and Northern Sweden	PL09
	Anuschka Polder, <u>Katharina B. Løken</u> , Janneche Utne Skåre, Morten Tryland, Erik Ropstad, Geir Wing Gabrielsen, Turid Vikøren, Jon M. Arnemo, Torill Mørk, Siw Killengreen, Pim Leonards, Elisabeth Lie	
14.15	A comparison of acute toxicity data for arctic and temperate species; consequences for risk assessment	PL10
	<u>Gro Harlaug Olsen</u> , Lionel Camus, Mathijs Smit, Iris Jæger, Jolynn Carroll	
14.30	Coffee break and poster session	
15.00	Identification of testosterone disrupting organohalogenated compounds in polar bears (<i>Ursus maritimus</i>)	PL11
	<u>Bjørn Munro Jenssen</u> , Gro Dehli Villanger, Eli I. Smette, Robert J. Letcher, Christian Sonne, Rune Dietz	
15.15	Method validation for determination of thyroid hormone-like compounds in plasma samples	PL12
	<u>Eszter Simon</u> , Timo Hamers, Pim Leonards, Jacob de Boer and Marja Lamoree	
15.30	Temporal trend in thyroid hormone disruption in polar bear (<i>Ursus maritimus</i>) cubs from Svalbard measured by the use of TTR-binding assay	PL13
	<u>Jenny Bytingsvik</u> , Eszter Simon, Bjørn Munro Jenssen, Elisabeth Lie, Jon Aars, Øystein Wiig, Andrew E. Derocher, Pim Leonards, Marja Lamoree, Timo Hamers	
15.45	Effects-directed analysis of polar bear blood plasma	PL14
	<u>Martine Muusse</u> , Geir W. Gabrielsen, Peter Haglund, Ketil Hylland, Katherine Langford, Elisabeth Lie, Knut-Erik Tollefsen, Kevin V. Thomas	
16.00	Nuclear receptor targets for endocrine disrupting compounds	PL15
	<u>Rusten M</u> , Lille-Langøy R, Eide M, Bache SM, Davies R, Male R, Blumberg B, Goksøyr A	
16.15	Effect of mercury and other metals, and selenium on metallothionein and plasma thyroid hormone levels in free-ranging brown trout (<i>Salmon trutta</i>) from Lake Mjøsa and an upstream reference population (Norway)	PL16
	<u>Eugen Gravningen Sørmo</u> , Tomasz Maciej Ciesielski, Ida Beate Øverjordet, Grethe Stavik Eggen, Paulien Jakobje Mulder, Bjørn Munro Jenssen	
16.30	Coffee break	

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Climate change and toxicology

Chair persons: Heli Routti & Bjørn Munro Jensen

16.45	Ecological effects of ocean acidification in a changing climate	INV03
	<i>Richard Bellerby</i>	
17.15	Effects of ocean acidification on early life stages of shrimps (<i>Pandalus borealis</i>) and mussels (<i>Mytilus edulis</i>)	PL17
	<u>Renée Katrin Bechmann</u> , Ingrid Christina Taban, Stig Westerlund, Brit Fjone Godal, Maj Arnberg, Sjur Vingen, Anna Ingvarsdottir, Thierry Baussant	
17.30	Effects of elevated CO ₂ concentrations on the copepod <i>Calanus finmarchicus</i>	PL18
	<u>Sindre Andre Pedersen</u> , Karen Hammer, Trond Nortug, Bjørn Henrik Hansen, Dag Altin, Anders Johny Olsen	
17.45	End of session	
18.00	Departure by boat for symposium dinner	
22.30	Return from restaurant by boat	

Friday, April 16

Nanotoxicology

Chair persons: Nancy Denslow & Knut Erik Tollefsen

09.00 Nanotechnology and the Environment: Decisions under Uncertainty INV04

Richard Owen

09.30 Effects of Engineered Nanoparticles on Rainbow Trout (*Oncorhynchus mykiss*) Hepatocytes PL19

Julia Farkas, Paul Christian, Eivind Farmen Finne, Julián Alberto Gallego Urrea, Martin Hassellöv, Knut Erik Tollefsen and Kevin V. Thomas

09.45 Silver nanoparticle toxicity in Atlantic salmon – effects at the transcriptome and functional level PL20

Eivind Farmen, Deborah Oughton, Knut-Erik Tollefsen

10.00 Engineered cobalt and silver nanoparticles in soil ecosystems: bioavailability, uptake and biodistribution in earthworms PL21

Claire Coutris, Turid Hertel-Aas, Erik Jautris Joner and Deborah Helen Oughton

10.15 The behavior and toxicity of engineered polymeric- and silica-based nanoparticles in aqueous environments PL22

Andy Booth, Justyna Justynska, Max Frenzel, Heidi Johnsen, Stephan Kubowicz, Bjørn Henrik Hansen and Dag Altin

10.30 Coffee break

Oil and produced water discharges

Chair persons: Merete Grung & Wim de Coen

10.50 The Norwegian water column monitoring programme, biological effects monitoring of Ekofisk produced water from 2006 to 2009 PL23

Steven Brooks, Rolf C Sundt, Christopher Harman, Eivind Farmen Finne, Merete Grung, Sjur Vingen, Brit F. Godal, Janina Baršienė, Halldóra Skarphéðinsdóttir

11.05 Condition monitoring in the water column 2005 and 2008: Oil hydrocarbons in fish from Norwegian waters and biomarker responses PL24

Bjørn Einar Grøsvik, Sonnich Meier, Birgitta Liewenborg, Guri Nesje, Kjell Westrheim, Merete Fonn, Olav S. Kjesbu, Halldóra Skarphéðinsdóttir and Jarle Klungsøyr

11.20 Whole-body distribution of PAHs in zebrafish (*Danio rerio*): involvement of ABC transporters? PL25

Ketil Hylland, Jeanette Beckius, Morten Sandvik, Anders Ruus, Jan Roger Torp and Kristian Ingebrigtsen

11.35 Alkylphenol metabolites in fish bile used as biomarkers for environmental risk assessment and monitoring of offshore produced water exposure in feral fish PL26

Jonny Beyer, Rolf C. Sundt, Sonnich Meier, Steinar Sanni, Atle Nævdal, Magne O. Sydnes, & Grete Jonsson

11.50 Ecotoxicological mechanisms and models in an impact analysis tool for oil spills PL27

Frederik De Laender, Gro Harlaug Olsen, Tone Frost, Bjørn Einar Grøsvik, Merete Grung, Bjørn Henrik Hansen, Jan Hendriks, Colin Janssen, Chris Klok, Trond Nortug, Mathijs Smit, JoLynn Carroll and Lionel Camus.

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12.05	Repeated sampling of Atlantic cod (<i>Gadus morhua</i>) for monitoring of nondestructive parameters during exposure to an offshore effluent <u>Tor Fredrik Holth</u> , Bjørnar André Beylich, Ketil Hylland	PL28
12.20 Lunch		
Environmental toxicogenomics, toxicoproteomics and systems biology approaches II Chair persons: Marte Rusten & Jonny Beyer		
13.10	Integrating metabolomics with physiology: Towards "Systems Toxicology" <i>Mark Viant</i>	INV05
13.40	Using metabolomics to explore diethanolamine toxicity in <i>Calanus finmarchicus</i> <u>Trond Røvik Størseth</u> , Dag Altin, Sven Even Borgos, Ingrid Overrein, Torunn Holten, Kolbjørn Zahlsen, Anders Brunsvik and Bjørn Henrik Hansen	PL29
13.55	Immune-regulatory genes in the liver and head kidney of Atlantic salmon after exposure to tributyltin in the presence or absence of the second messenger activator, forskolin <u>Nela Pavlikova</u> , Augustine Arukwe	PL30
14.10	Effects of deca-BDE and TBBPA on selected biomarkers, hatching success and biometry variables in Japanese quails <u>Tomasz Ciesielski</u> , Claus Bech, Augustine Arukwe, Børge Moe, Bjørn Munro Jenssen	PL31
14.25 Coffee break Chair person: Anders Goksøyr		
14.45	Toxicogenomics and the regulatory arena <i>Wim de Coen</i>	INV06
15.15	Closing remarks & award ceremony	
16.00	End of symposium	