

# PhD and student theses with association to IRIS-Biomiljø

Entries are sorted chronologically (post doc studies & student / guest researcher works are shown in separate tables further below)

| # | Person / thesis or work title   | Type of study<br>(SP=study credits) | Status or Year<br>(+month)<br>finished | Supervisors, contributors and affiliating institutions  |
|---|---|-------------------------------------|--|---|
|   | <b>Eivind Larssen:</b> "A proteomic approach to mechanisms for chronic fatigue"   | PhD                                 | Ongoing.<br>Started Jan 2010.          | Roald Omdal (SUS), Anne Hjelle (IRIS), Peter Ruoff (UIS)  |
|   | <b>Kai-Erik Uleberg:</b> "Analysis by proteomics, electrochemiluminescence (ECL) and nuclear magnetic resonance (NMR) of proteins and small molecules secreted by cervical punch biopsies containing CIN2-3 lesions." | PhD                                 | Ongoing.<br>Started August 2009        | Project leader and main supervisor: Prof. Jan P.A Baak (Pathology Department, Stavanger University Hospital; The Gade Institute, University of Bergen; Free University Amsterdam The Netherlands.<br><br>Co-supervisors: Emiel A.M Janssen (Pathology Department, Stavanger University Hospital) and Anne Hjelle (IRIS).<br><br>Co-investigators: Ane Cecilie Munk (Gynaecology Department, SUH), Einar Gudlaugsson and Ivar Skaland (both Pathology Department, SUH) |
|   | <b>Marie Hannam:</b> "Immune modulating effects of oil exposure in the Arctic Scallop, <i>Chlamys islandica</i> and temperate scallop, <i>Pecten maximus</i> ."   | PhD                                 | Ongoing,<br>Start 2006                 | Director of studies: Prof Mal Jones (University of Plymouth), 2nd Supervisor: Prof Tamara Galloway (University of Exeter), 3rd Supervisor: Dr John Moody (University of Plymouth), Advisor in sponsor institute: Dr Shaw Bamber (IRIS)  |
|   | <b>Anne Helene Tandberg:</b> In project: "A taxonomic revision and phylogenetic analysis of the amphipod genus <i>metopa</i> (stenothoidae)".   | Ph.D.                               | Ongoing,<br>Start Feb 2005             | Wim Vader (Tromsø Museum, University Tromsø), Jørgen Berge (UNIS).  |

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|                               | <b>Mari Mæland:</b> "Proteome expression signature in fish as a diagnostic tool to evaluate the impact of offshore oil and gas exploration (NFR-proof)".   | Ph.D.                           | Ongoing,<br>Start Feb<br>2005 | Cathrine Lillo (University of Stavanger), Anne Hjelle ( IRIS), Odd K. Andersen ( BiotaRisk), Bjørn Munro Jensen (NTNU).  |
| <b>Finished thesis works:</b> |  |                                 |                               |  |
| 38                            | <b>Tiphaine Le Priol:</b> "Utilisation d'algues pour le suivi écotoxicologique du pétrole en milieu marin: Etude préliminaire pour le développement d'un biocapteur"<br><br>"Use of algae for ecotoxicological monitoring of petroleum at sea: preliminary studies for the development of a biosensor" | Master<br>(Engineer<br>diploma) | Completed<br>August<br>2009   | Thierry Baussant, IRIS<br><br>Prof. Claude Durrieu – Laboratoire des Sciences de l'Environnement (LSE) (ENTPE), Vaulx-en-Velain, France                            |
| 37                            | <b>Jana Pauling:</b> "Study of behaviour and physiological parameters in deep-water coral <i>Lophelia pertusa</i> "  | diploma thesis                  | Completed<br>August<br>2009   | Thierry Baussant, Jan Fredrik Børseth IRIS<br><br>Prof. Jörg-Uwe Ackermann University of Applied Sciences, Dresden, Germany  |
| 36                            | <b>Ingrid Nylend:</b> "Comparison of three methods for studying CYP1A induction in Atlantic salmon ( <i>Salmo salar</i> ) exposed to crude oil".   | MSc<br><br>(30SP)               | June<br>2009                  | Supervisors: IRIS-Biomiljø – Henrik Jonsson, Steinar Sanni. UiS-IMN - Jonny Beyer. Master study direction at UiS-IMN: Offshoreteknologi / Teknisk miljøvern.       |
| 35                            | <b>Genia Atma Nagara:</b> Preliminary title: "DREAM as a tool to predict biomarker responses".   | MSc<br><br>(30SP)               | June<br>2009                  | Supervisors: IRIS-Biomiljø - Emily Lyng, Steinar Sanni. UiS-IMN - Jonny Beyer. Master study direction at UiS-IMN: Offshore Technology – Environmental Engineering. |
| 34                            | <b>Krista Kaster:</b> "Analysis and Applications of Microorganisms from a Chalk Oil Reservoir in the North Sea".   | Ph.D.                           | March<br>2009                 | Olav Vladsten (NTNU), Odd Gunnar Brakstad (Sintef), Grethe Kjeilen- Eilertsen & Harald Berland (IRIS).   |
| 33                            | <b>Trine Salvesen:</b> En proteomisk studie av serum biomarkører for syklisk variasjon mellom to genotyper av <i>Anaplasma phagocytophilum</i> i infisert sau  | MSc<br><br>(60SP)               | Dec.<br><br>2008              | Eivind Larsen & Kai-Erik Uleberg (IRIS-Biomiljø), Peter Ruoff (UiS-IMN).<br><br>Snorre Stuen (Veterinærhøgskolen) contributed with serum samples.                  |
| 32                            | <b>Kathrine Sundvor:</b> A proteomic study for serum biomarkers for variations between two genotypes of <i>Anaplasma phagocytophilum</i> in infected lambs   | MSc<br><br>(60 SP)              | Dec.<br><br>2008              | Eivind Larsen & Kai-Erik Uleberg (IRIS-Biomiljø), Peter Ruoff (UiS-IMN)<br><br>Snorre Stuen (Veterinærhøgskolen) has   |

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|----|---|--|--------------------|---|
|    |   |  |                    | contributed with serum samples  |
| 31 | <b>Thomas Eves:</b> "Phagocytosis in <i>Mytilus edulis</i> (blue mussels)".   | MSc  | Sept.<br>2008      | Tamara Galloway, Univ. Exeter (UK), Thierry Baussant (IRIS).<br><br>University of Exeter, MSc – Marine and Freshwater Biology and Resource Management |
| 30 | <b>Anne Bjørnstad:</b> "Proteomics and ecotoxicology: marine invertebrates and endocrine disrupting chemicals".   | Ph.D.  | Sept.<br>2008      | Malcolm Jones (Dept. of Biological Sciences, University of Plymouth), Odd K. Andersen (IRIS).   |
| 29 | <b>Claudia Lucas:</b> Examination of biomarker response in crude oil-exposed halibut to assess the long term effects of produced water discharge using various analytical investigations  | Diplomarbeit (Master) thesis<br><br>Dipl. (FH)           | Sept.<br>2008      | Prof. J. U. Ackermann (HTW Dresden), Henrik Jonsson (IRIS)  |
| 28 | <b>Knut Østerhus:</b> Effekter av boreslam (barytt) på blåskjell: Analyse av lipofuscin og 'neutral lipids' i fordøyelseskjertelen.   | Bachelor<br><br>(15 SP)                                  | August<br>2008     | Cathrine Lillo (UiS), Renee Katrin Bechmann (IRIS).   |
| 27 | <b>Emilie Sinet:</b> "Integrated multi-biomarkers indices of environmental quality"<br><br>Chemical selection, biological-based monitoring and integrative assessment methods: input to the EU-Respil project in the marine pollution framework 2006" | Diplôme d'Ingénieur Agronome de l'ENSAIA (Master Degree) | Septem<br>ber 2007 | Jérôme Cortet (E.N.S.A.I.A., National Engineering School of Agronomy and Food Sciences, Nancy, France), Thierry Baussant (IRIS)                       |
| 26 | <b>Sjur Vingen:</b> " Bioakkumulering og effekter av komponenter fra tungolje i blåskjell".   | Master thesis  | 2007               | Roald Kommedal (UiS), Thierry Baussant (IRIS).  |
| 25 | <b>Claudia Lucas:</b> "A Comparison of Bradford and Lowry protein assay". A student trainee sponsored by the EU Leonardo da Vinci programme for vocational training.  | 5 months traineeship thesis                              | 2006               | Prof. J.-U. Ackermann, University of Applied Sciences, Dresden (Germany), Jonny Beyer (IRIS), Steinar Sanni (IRIS)                                    |
| 24 | <b>Heidi Salte:</b> "Rapid evaluation of process topologies exploiting the use of his-tagging for the selective recovery of proteins".  | Ph.D.  | 2006               | Nigel J. Titchener-Hooker, Dept. Biochemical Engineering, University College London (UCL), Arild Johannessen (IRIS).                                  |
| 23 | <b>Marta Bertolaso:</b> "Artificial reefs in marine coastal areas: environmental and socio-economic aspects".   | Master thesis  | 2006               | Arch. P. Rosa Salva, & P. Franzoi (Universita Ca' Foscari – Venezia, Italy), Daniela Pampanin, Gottfried Heinzerling (IRIS).                          |

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|----|---|--|------|---|
| 22 | <b>Linda Johannessen:</b> "Pichia som ekspresjonssystem og studier av nitratreduktase".   | Master thesis                          | 2005 | Cathrine Lillo (University of Stavanger), Berit Johansen (NTNU), Arild Johannessen (IRIS).                      |
| 21 | <b>Marie Hannam:</b> "Development and evaluation of immuno-toxicological biomarkers in mussels for use within environmental monitoring programmes"                | Master thesis                          | 2005 | Tamara Galloway (Dept. of Biological Sciences, University of Plymouth, UK), Shaw Bamber (IRIS).                 |
| 20 | <b>Kjellaug Aarebrot Karlsen:</b> "Pentafluorobenzoyl bromide derivatisation of alkylphenol metabolites, followed by GC-MS analyses in chemical ionisation mode". | Master thesis                          | 2005 | Kåre Jørgensen (University of Stavanger), Grete Jonsson (IRIS).   |
| 19 | <b>Asle H. Sørensen:</b> "Effekter av produsert vann på blåskjell". (felles oppgave sammen med Christina Maliska)   | Kandidat oppgave                       | 2005 | Helene Schei (Inst. of Petroleum Technology, University of Stavanger), Jonny Beyer (IRIS).                      |
| 18 | <b>Christina Maliska:</b> "Effekter av produsert vann på blåskjell". (felles oppgave sammen med Asle H. Sørensen)   | Kandidat oppgave                       | 2005 | Helene Schei (Inst. of Petroleum Technology, University of Stavanger), Jonny Beyer (IRIS).                      |
| 17 | <b>Goran Klaric:</b> "Syntese og HPLC-separasjon av fluorescente alkylfenolderivater".  | Kandidat oppgave                       | 2005 | Kåre Jørgensen (University of Stavanger), Grete Jonsson (IRIS).   |
| 16 | <b>Tone Stokke:</b> "Optimisation of HPLC-F Method for separation of Alkylphenols in Fish Bile".  | Hovedoppgave/ diplomoppgave (Siv.ing.) | 2004 | Kåre Jørgensen (University of Stavanger), Grete Jonsson (IRIS).   |
| 15 | <b>Admira Cavcic:</b> "Detection of alkyl phenol metabolites in fish bile and derivatization with dansyl chloride".   | Hovedoppgave/ diplomoppgave (Siv.ing.) | 2004 | Kåre Jørgensen (University of Stavanger), Grete Jonsson (IRIS).   |
| 14 | <b>Giles Watson:</b> "An evaluation of the biological responses of the shore crab, <i>Carcinus maenas</i> , to pollution".  | Ph.D.                                  | 2004 | Tamara Galloway & Mike Depledge (Dept. of Biological Sciences, University of Plymouth), Odd K. Andersen (IRIS). |
| 13 | <b>Sebastien Rider:</b> "The development of biomarkers and bioassays in mussels for use within monitoring programmes".  | Master thesis                          | 2004 | Tamara Galloway (Dept. of Biological Sciences, University of Plymouth, UK), Shaw Bamber (IRIS).                 |
| 12 | <b>Grete Jonsson:</b> "Determination of PAH metabolites in fish bile; Evaluation, quality assurance and utilisation of analytical methods".                       | Dr.Scient.                             | 2003 | Otto Grahl-Nielsen (Dept. of Chemistry, University of Bergen).  |

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|----|---|--|------|--|
| 11 | <b>Lionel Camus:</b> "Biomarkers relevant to oil and gas industrial activities in low temperature marine ecosystems - Biomarkers in the Arctic".                          | Dr.Philos.                                       | 2002 | Malcolm Jones (Dept. of Biological Sciences, University of Plymouth), Jan F. Børseth (IRIS).                             |
| 10 | <b>Majbritt Joensen:</b> "Syntese av krysenmetabolitter".   | Kandidat oppgave                                 | 2002 | Kåre Jørgensen (University of Stavanger), Grete Jonsson (IRIS).  |
| 9  | <b>Nathalie Morrata:</b> "Method development of lipid class separation by the use of silica cartridges".  | Hovedoppgave / DEA - diplôme d'étude approfondie | 2002 | Université Aix-Marseille II, Centre d'Océanologie de Marseille. Laurence Pinturier (TOTAL E&P Norge AS).                 |
| 8  | <b>Inger Smedberg:</b> "Fluorescence as a screening method for THC in sediment samples".  | Hovedoppgave/ diplomoppgave (Siv.ing.)           | 2001 | Peter Ruoff (University of Stavanger), Grete Jonsson (IRIS).   |
| 7  | <b>Pier Davies:</b> "Temperature dependent physiological response of <i>Carcinus maenas</i> exposed to copper".   | Master thesis                                    | 2001 | Malcolm Jones (Dept. of Biological Sciences, University of Plymouth), Lionel Camus (Akvamiljø/IRIS).                     |
| 6  | <b>Endre Aas:</b> "Biomarkers for polyaromatic hydrocarbon exposure in fish".   | Dr.Scient.                                       | 2000 | Anders Goksøyr (Dept. for Fisheries and Marine Biology, University of Bergen), Jonny Beyer & Odd K. Andersen (IRIS).     |
| 5  | <b>Jill Leikvoll:</b> "Uptake and Elimination of Cu and ZN in blue mussels ( <i>Mytilus edulis</i> ) and assessment of effect using Neutral red retention assay".         | Hovedoppgave/ diplomoppgave (Siv.ing.)           | 2000 | T. Bilstad (University of Stavanger), O.K. Andersen & A. Bjørnstad (IRIS).   |
| 4  | <b>Pål Aune:</b> " Uptake and elimination of PAH and metals in <i>Mytilus edulis</i> with measurements of membrane stability (NRRT) for assessing effect: a Field study". | Cand.mag thesis                                  | 1999 | Telemark University College, Anne Bjørnstad & Grete Jonsson (IRIS).  |
| 3  | <b>Eivind Ølberg:</b> "Blue mussels ( <i>Mytilus edulis</i> ) as a bioindicator for Marine contamination with Polycyclic Aromatic Hydrocarbons (PAH) and metals".         | MSc thesis                                       | 1998 | Angus Beck (Inst. Applied Environmental Science, Wye College, London University), Odd K. Andersen & A. Bjørnstad (IRIS). |
| 2  | <b>Monica Jacobsen:</b> "Identification of sensitivity and comparison with respect to three biomarkers in the Blue mussel, <i>Mytilus edulis</i> , exposed to cadmium".   | Hovedoppgave/ diplomoppgave (Siv.ing.)           | 1997 | Leif Ydstebø (University of Stavanger), O.K. Andersen (IRIS).  |
| 1  | <b>Anne Bjørnstad:</b> "Biomarkers - Lysosomal response, scope for growth and measurements of shell growth rate in  | Hovedoppgave/ diplomoppgave (Siv.ing.)           | 1997 | T. Bilstad (University of Stavanger), O.K. Andersen (IRIS).  |

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|  | mussels as biomarkers for PAH exposure in the marine environment". |  |  |  |
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## Post doc studies with association to IRIS-Biomiljø

| # | Post doc person           | Period      | "Title" or post doc work area   |
|---|---------------------------|-------------|---|
|   | <b>Krista Kaster</b>      | 2009-2010   | Development of new tools and competence in microbiology and molecular biology for impact assessments of pollutants in the marine environment.                       |
|   | <b>Eva Dock</b>           | 2007 - 2008 | Multichannel biosensor technology (bioelectronic tongue).   |
|   | <b>Elisa Ravagnan:</b>    | 2006 -2008  | "Developing an Index of the Quality of the Marine Environment (Marine Environment I.Q.) based on biomarkers: integration of pollutant effects on marine organisms". |
|   | <b>Fiona Provan</b>       | 2004 - 2006 | Proteomics  |
|   | <b>Grete Jonsson</b>      | 2003 - 2005 | Development fish bile metabolite detection methods for use as biomarkers in environmental monitoring.   |
|   | <b>Lionel Camus</b>       | 2002-2004   | "Biomarkers to monitor oil and gas industrial activities in the deep-sea".  |
|   | <b>Tiphaine Monsinjon</b> | 2002 - 2005 | Proteomics  |
|   | <b>Laurence Pinturier</b> | 2001-2003   | "Surface indicators of oil seeps".  |
|   | <b>Jonny Beyer</b>        | 1997-1999   | "Development and application of fish biomarkers in environmental monitoring".   |

## Other student and guest researcher works

| # | Person / thesis title   | Thesis type  | Status / Year finished | Supervisors (formal supervisor first) and institution |
|---|---|--|------------------------|---|
|   | <b>Anatoly Opekunov</b> worktitle: Study of approaches of biomonitoring with risk assessment by construction of biomarker bridges | Guest Researcher<br><br>(Professor St.Petersburg State University) | Feb 2010               | Steinar Sanni, Jonny Beyer, Brit Fjone Godal IRIS)    |
|   | <b>Marina Opekunova</b> worktitle: Study of approaches of biomonitoring with risk   | Guest  | Feb 2010               | Steinar Sanni, Jonny Beyer, Brit Fjone                |

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|  | assessment by construction of biomarker bridges   | Researcher<br><br>(Associate Professor<br>St.Petersburg State University) |   | Godal ( IRIS)  |
|  | <b>Rajsa Turja:</b> worktitle of IRIS part of thesis work: contribution towards harmonizing marine environmental monitoring techniques between Finland and Norway | Ph  | On-going<br><br>Lab exposure and analyses at Akvamiljø September / October 2009 | Supervisor: Kari Lehtonen, University of Helsinki/SYKE<br><br>Steinar Sanni, Carina Bjørkblom, Anna Ingvarsdottir, Atle Nævdal, Thierry Baussant, Helge Knutsen( IRIS) |
|  | <b>Timothee Kirkhus:</b> ” Evaluation of peroxisomal expression in juvenile Halibut ( <i>Hippoglossus hippoglossus</i> ) exposed to crude oil                     | Report  | 2009<br><br>4 month stay  | Henrik Jonsson ( IRIS)   |
|  | <b>Annette Elde</b> “Drill mud and its effect on pigmentation in <i>Lophelia pertusa</i> ”  | Short-term contract (post master work)                                    | 2 periods – July/August 2009 & December 2009                                    | Th. Baussant, (IRIS)   |
|  | <b>Alessio Gomiero:</b> “The development of a new molecular biomarker in the shore crab, using SELDI TOF technology”.   | 6 months stage  | 2005  | University Venice, Italy<br><br>Daniela Pampanin (IRIS).   |
|  | <b>Peter Kinzel:</b> ”Testing dexoygenation equipment”.   |   | 1999  | University of Nancy (FR),<br>Stephane LeFloch ( Total)<br>Kjell Birger Øysæd (IRIS)  |
|  | <b>Karine Barbier:</b> “Catalase and GST in blue mussels”. (work area)  | Student   | 1999<br><br>3 month stay  | University of Bordeaux<br>Jan Fredrik Børseth ( IRIS)  |
|  | <b>Laurent Marsal:</b> Determination de la toxicité aiguë de WAFs de 5 hydrocarbures par test Micotox et inhibition de croissance sur <i>skeletonmea costatum</i> | Report  | 1996  | University of Marseille (FR)<br><br>Steinar Sanni (IRIS)   |