Flemming Jessen - DTU Orbit (01/10/2018)

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Publications:

**Enzyme-assisted peeling of cold water shrimps (Pandalus borealis)**
Publication: Research - peer-review › Journal article – Annual report year: 2018

**A quantitative method to measure and evaluate the peelability of shrimps (Pandalus borealis)**
Publication: Research - peer-review › Journal article – Annual report year: 2018

**Emerging and potential technologies for facilitating shrimp peeling: A review**
Publication: Research - peer-review › Journal article – Annual report year: 2018

**Facilitating shrimp (Pandalus borealis) peeling by power ultrasound and proteolytic enzyme**
Publication: Research - peer-review › Journal article – Annual report year: 2018

**Non-destructive measurement of salt using NIR spectroscopy in the herring marinating process**
Publication: Research - peer-review › Journal article – Annual report year: 2018

**The influence of processing conditions on the weight change of single herring (Clupea herengus) fillets during marinating**
Publication: Research - peer-review › Journal article – Annual report year: 2018

**Discovery, cloning and characterisation of proline specific prolyl endopeptidase, a gluten degrading thermo-stable enzyme from Sphaerobacter thermophiles**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Muscle Protein Profiles Used for Prediction of Texture of Farmed Salmon (Salmo salar L.)**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Antioxidant activity of cod (Gadus morhua) protein hydrolysates: Fractionation and characterisation of peptide fractions**
Publication: Research - peer-review › Journal article – Annual report year: 2016

**Bioactive compounds in commercial nitrite-cured cooked pork products**
Publication: Research - peer-review › Poster – Annual report year: 2016

**Biological variation of the raw material and processing conditions affect the yield and quality of fast-marinated herring**
Publication: Research - peer-review › Poster – Annual report year: 2016
Effect of sodium bicarbonate and varying concentrations of sodium chloride in brine on the liquid retention of fish (Pollachius virens L.) muscle: High quality low salt saithe muscle
Publication: Research - peer-review › Journal article – Annual report year: 2015

Growth promotion in pigs by oxytetracycline coincides with down regulation of serum inflammatory parameters and of hibernation-associated protein HP-27
Publication: Research - peer-review › Journal article – Annual report year: 2016

Interactions between Surfactants In Solution and Electrospun Protein Fibers: Effects on Release Behavior and Fiber Properties
Publication: Research - peer-review › Journal article – Annual report year: 2016

Non-invasive volume estimation of fish fillets/cutlets using structured light
Publication: Research - peer-review › Poster – Annual report year: 2016

Peelability and quality changes during ice maturation of shrimp (Pandalus borealis)
Publication: Research - peer-review › Poster – Annual report year: 2016

Protein changes in shell and epidermis of shrimp (Pandalus borealis) after maturation on ice or in salt
Publication: Research - peer-review › Poster – Annual report year: 2016

Bioactive protein-based nanofibers interact with intestinal biological components resulting in transepithelial permeation of a therapeutic protein
Publication: Research - peer-review › Journal article – Annual report year: 2015

Design and characterization of self-assembled fish sarcoplasmic protein-alginate nanocomplexes
Publication: Research - peer-review › Journal article – Annual report year: 2015

Development and characterization of nano-micro structures as carrier for bioactive compounds
Publication: Research › Ph.D. thesis – Annual report year: 2015

Growth hormone transgenesis influences muscle proteome of Coho salmon (Oncorhynchus kisutch)
Publication: Research - peer-review › Poster – Annual report year: 2016

Interactions between electrospun fibers and the surrounding biological environment; cells and small molecules
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Proteomanalyse: To-dimensjonal gelelektroforese av Nordsjøsild i forhold til modningstid
Publication: Research - peer-review › Report – Annual report year: 2015

The effects of eating marine- or vegetable-fed farmed trout on the human plasma proteome profiles of healthy men
Publication: Research - peer-review › Journal article – Annual report year: 2015

Triton X-114 cloud point extraction to subfractionate blood plasma proteins for two-dimensional gel electrophoresis
Publication: Research - peer-review › Journal article – Annual report year: 2015

Antioxidant activity of Cod (Gadus morhua) protein hydrolysates: In vitro assays and evaluation in 5% fish oil-in-water emulsion
Publication: Research - peer-review › Journal article – Annual report year: 2014
Bioactive electrospun fish sarcoplasmic proteins as a drug delivery system
Publication: Research - peer-review › Journal article – Annual report year: 2014

Characterization of process induced changes in matjes herring, using 2D gel electrophoresis
Publication: Research - peer-review › Poster – Annual report year: 2014

Chilling and freezing of fish
Publication: Research - peer-review › Book chapter – Annual report year: 2014

Discovery and characterization of novel bioactive peptides from marine secondary products
Publication: Research › Ph.D. thesis – Annual report year: 2014

Effect of Gastrointestinal Protease Digestion on Bioactivity of Marine Peptides
Publication: Research - peer-review › Journal article – Annual report year: 2014

Electrospun fish protein fibers as a biopolymer-based carrier – implications for oral protein delivery
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Protein markers for the salting and ripening process in Herring production
Publication: Research - peer-review › Poster – Annual report year: 2014

Species determination of pine nuts in commercial samples causing pine nut syndrome
Publication: Research - peer-review › Journal article – Annual report year: 2014

The impact of students’ knowledge levels on the performances in a Design-Build project
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Authentication of Fish Products by Large-Scale Comparison of Tandem Mass Spectra
Publication: Research - peer-review › Journal article – Annual report year: 2013

Tandem mass spectrometry for species recognition and phenotyping in fish
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Comparative analysis of inflamed and non-inflamed colon biopsies reveals strong proteomic inflammation profile in patients with ulcerative colitis
Publication: Research - peer-review › Journal article – Annual report year: 2012

Dietary Tools To Modulate Glycogen Storage in Gilthead Seabream Muscle: Glycerol Supplementation
Publication: Research - peer-review › Journal article – Annual report year: 2012

Effects of Preslaughter Stress Levels on the Post-mortem Sarcoplasmic Proteomic Profile of Gilthead Seabream Muscle
Publication: Research - peer-review › Journal article – Annual report year: 2012

Proteome Analysis of Pyloric Ceca: A Methodology for Fish Feed Development?
Publication: Research - peer-review › Journal article – Annual report year: 2012

Proteomics as a tool to understand fish stress in aquaculture
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

PROTEOMICS in aquaculture: Applications and trends
Publication: Research - peer-review › Journal article – Annual report year: 2012
Quality of frozen fish
Publication: Research - peer-review › Book chapter – Annual report year: 2012

Standardized and simple sub-fractionation of human plasma reveals enrichment of many low abundant hydrophobic proteins
Publication: Research - peer-review › Poster – Annual report year: 2012

Time-dependent changes in protein expression in rainbow trout muscle following hypoxia
Publication: Research - peer-review › Journal article – Annual report year: 2012

Vegetable based fish feed changes protein expression in muscle of rainbow trout (Oncorhynchus mykiss)
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Report from workshop on Bioactive peptides from aquatic raw materials: Copenhagen, 2 March 2010
Publication: Research › Report – Annual report year: 2011

Antioxidant Activity of Fish Protein Hydrolysates in in vitro Assays and in Oil-In-Water Emulsions.
Publication: Research › Conference abstract for conference – Annual report year: 2011

Dietary Tools To Modulate Glycogen Storage In Fish Muscle: A Proteomic Assessment
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2011

Differences in fish feed composition influence protein expression in the pyloric caeca in rainbow trout
Publication: Research - peer-review › Poster – Annual report year: 2011

Effect of a dietary supplementation of glycerol and maslinic acid on the muscle proteome of gilthead seabream
Publication: Research - peer-review › Poster – Annual report year: 2011

Feed based on vegetable materials changes the muscle proteome of the carnivore rainbow trout
Publication: Research › Conference abstract in proceedings – Annual report year: 2011

Vækst og kvalitet af motioneret regnbuesørred
Publication: Research › Report – Annual report year: 2011

Effect of Protein Hydrolysates on Pancreatic Cancer Cells
Publication: Research › Poster – Annual report year: 2010

Post-mortem sarcoplasmic proteomic profile of gilthead seabream is affected by pre-slaughter stress levels.
Publication: Research - peer-review › Poster – Annual report year: 2010

Purification and Characterization of Bioactive Peptides from Fish Protein Hydrolysates
Publication: Research › Poster – Annual report year: 2010

Reproducibility of a fractionation procedure for fish muscle proteomics
Publication: Research - peer-review › Journal article – Annual report year: 2010

Time-dependent effect of pre-slaughter stress levels on the post-mortem sarcoplasmic proteomic profile of Sparus aurata muscle
Publication: Research - peer-review › Poster – Annual report year: 2010
Using a cross-model loadings plot to identify protein spots causing 2-DE gels to become outliers in PCA
Publication: Research - peer-review › Journal article – Annual report year: 2010

Wound healing effect on tissue composition: facing interindividual variability
Publication: Research - peer-review › Poster – Annual report year: 2010

2 D gel based analysis of biological variability of the human plasma proteome
Publication: Research › Poster – Annual report year: 2009

Contribution of cathepsins B, L and D to muscle protein profiles correlated with texture in rainbow trout (Oncorhynchus mykiss)
Publication: Research - peer-review › Journal article – Annual report year: 2009

Multivariate data analysis of 2 DE data: Time dependent changes in protein expression in rainbow trout following hypoxia
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2009

On the Reproducibility of a Fractionation Procedure for Fish Muscle Proteomics
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2009

PEPFISH: Utilisation of Bioactive Peptides from Fish Processing – Upgrading the Value of Secondary Products
Publication: Research › Poster – Annual report year: 2009

Purification and Characterization of Peptides from Fish Protein Hydrolysates
Publication: Research › Poster – Annual report year: 2009

Two-dimensional gel electrophoresis
Publication: Research - peer-review › Book chapter – Annual report year: 2009

Acute single meal effects of trout and poultry on the human plasma proteome
Publication: Research › Poster – Annual report year: 2008

A molecular approach to pre-harvest impact on post-harvest quality of trout
Publication: Research - peer-review › Poster – Annual report year: 2008

A molecular approach to pre-harvest impact on post-harvest quality of trout
Publication: Research › Paper – Annual report year: 2008

A short-term intervention trial with selenate, selenium-enriched yeast and selenium-enriched milk: effects on oxidative defence regulation
Publication: Research › Poster – Annual report year: 2008

Combination of statistical approaches for analysis of 2-DE data gives complementary results
Publication: Research - peer-review › Journal article – Annual report year: 2008

Comparison of two anoxia models in rainbow trout cells by a 2-DE and MS/MS-based proteome approach
Publication: Research - peer-review › Journal article – Annual report year: 2008

Effects of tetracycline administration on the proteomic profile of pig muscle samples (L. dorsi)
Publication: Research - peer-review › Journal article – Annual report year: 2008

Fiskerester bliver functional foods
Publication: Communication › Journal article – Annual report year: 2008
Long term anoxia in rainbow trout investigated by 2-DE and MS/MS
Publication: Research - peer-review › Journal article – Annual report year: 2008

Multivariate data analysis of two-dimensional gel electrophoresis protein patterns from few samples
Publication: Research - peer-review › Journal article – Annual report year: 2008

Protein and lipid oxidation in frozen rainbow trout
Publication: Research › Poster – Annual report year: 2008

Stress induced alteration in the proteome of farmed trout: investigation of the mechanism behind changes in sensory properties
Publication: Research › Poster – Annual report year: 2008

Acute effects of trout on cardiovascular risk markers and plasma proteome
Publication: Research › Poster – Annual report year: 2007

A short-term intervention trial, with selenate, Se-enriched yeast and Se-enriched milk: effects on plasma proteins
Publication: Research › Poster – Annual report year: 2007

Healthy, nutritious and tasty fish for the future
Publication: Research › Conference abstract in proceedings – Annual report year: 2007

Multivariate analysis of 2-DE protein patterns - Practical approaches
Publication: Research - peer-review › Journal article – Annual report year: 2007

Protein and lipid oxidation during frozen storage of rainbow trout (Oncorhynchus mykiss)
Publication: Research › Journal article – Annual report year: 2007

Protein and lipid oxidation in frozen rainbow trout
Publication: Research › Conference abstract in proceedings – Annual report year: 2007

Quality of frozen fish
Publication: Research - peer-review › Book chapter – Annual report year: 2007

Sensory characterization of different families of farmed rainbow trout
Publication: Research › Conference abstract in proceedings – Annual report year: 2007

Variable selection in the analysis of proteome data. Removal of irrelevant variables prior to a Jack-knife procedure
Publication: Research › Poster – Annual report year: 2007

Changes in cod muscle proteins during frozen storage revealed by proteome analysis and multivariate data analysis
Publication: Research - peer-review › Journal article – Annual report year: 2006

Changes in fish muscle proteins during frozen storage revealed by proteomics combined with multivariate data analysis
Publication: Research › Poster – Annual report year: 2006

Hvad sker der, når vi fryser torsken?
Publication: Research › Journal article – Annual report year: 2006
Identification of carbonylated proteins in frozen rainbow trout (Oncorhynchus mykiss) fillets and development of protein oxidation during frozen storage
Publication: Research - peer-review › Journal article – Annual report year: 2006

Investigation of two different anoxia models by 2-dimensional gel electrophoresis
Publication: Research › Journal article – Annual report year: 2006

Kvalitetsforskelle i opdrætsørred - kan de forudsiges?
Publication: Research › Poster – Annual report year: 2006

Protein and lipid oxidation during frozen storage of rainbow trout
Publication: Research › Poster – Annual report year: 2006

Proteomics combined with multivariate data analysis
Publication: Research › Poster – Annual report year: 2006

Stress induced changes in sensory properties and proteome of farmed trout
Publication: Research › Poster – Annual report year: 2006

Use of multivariate analysis in the transformation of 2D gel images into relevant spot quantity data
Publication: Research › Poster – Annual report year: 2006

Effect of age and temperature on amino acid composition and the content of different protein types of juvenile cod (Gadus morhua L.) otoliths
Publication: Research - peer-review › Journal article – Annual report year: 2004

Two-dimensional gel electrophoresis detection of protein oxidation in fresh and tainted rainbow trout muscle
Publication: Research - peer-review › Journal article – Annual report year: 2004

Proteome analysis elucidating post mortem changes in cod (Gadus morhua) muscle proteins
Publication: Research - peer-review › Journal article – Annual report year: 2003

Sarcoplasmic reticulum Ca2+-ATPase and cytochrome oxidase as indicators of frozen storage in cod (Gadus morhua)
Publication: Research - peer-review › Journal article – Annual report year: 2003

ATP, IMP, and glycogen in cod muscle at onset and during development of rigor mortis depend on the sampling location
Publication: Research - peer-review › Journal article – Annual report year: 2002

Extracting information from two-dimensional electrophoresis gels by partial least squares regression
Publication: Research - peer-review › Journal article – Annual report year: 2002

God og dårlig frossen fisk - hvorfor er der en forskel?
Publication: Research › Journal article – Annual report year: 2002

Temperature and Ca2+-dependence of the sarcoplasmic reticulum Ca2(+)-ATPase in haddock, salmon, rainbow trout and zebra cichlid
Publication: Research - peer-review › Journal article – Annual report year: 2002

ATP and glycogen content related to gaping in pre rigor cod (Gadus morhua) frozen in blocks at sea
Publication: Research - peer-review › Journal article – Annual report year: 2001
Chilling and freezing of fish and fishery products
Publication: Research - peer-review › Book chapter – Annual report year: 2001

Cytochrome oxidase as an indicator of ice storage and frozen storage
Publication: Research - peer-review › Journal article – Annual report year: 2001

Degradation of ATP and glycogen in cod (Gadus morhua) muscle during freezing
Publication: Research - peer-review › Journal article – Annual report year: 2001

Glycolysis and ATP degradation in cod (Gadus morhua) at subzero temperatures in relation to thaw rigor
Publication: Research - peer-review › Journal article – Annual report year: 2001

Sarcoplasmic reticulum CA $^{2+}$ ATPase activity in cod (Gadus morhua) muscle measured in crude homogenates
Publication: Research - peer-review › Journal article – Annual report year: 2001

Sarcoplasmic Reticulum Ca$^{2+}$-ATPase Activity in Cod (Gadus morhua) Muscle Measured in Crude Homogenates
Publication: Research - peer-review › Journal article – Annual report year: 2001

The effect of ice storage and freeze/thaw cycles on CA $^{2+}$ -ATPase and Cytochrome oxidase activity in salmon (Salmo salar)
Publication: Research › Conference article – Annual report year: 2001

Identification of fish species after cooking by SDS-PAGE and Urea IEF: a collaborative study
Publication: Research - peer-review › Journal article – Annual report year: 2000

Sarcoplasmic reticulum CA $^{2+}$ -ATPASE activity changes during frozen storage depend on pre-freezing time
Publication: Research › Conference article – Annual report year: 2000

Species identification of smoked and gravad fish products by sodium dodecylsulphate polyacrylamide gel electrophoresis, urea isoelectric focusing and native isoelectric focusing: a collaborative study
Publication: Research - peer-review › Journal article – Annual report year: 2000

A standarized method of identification of raw and heat-processed fish by urea isoelectric focusing: A collaboratory study
Publication: Research - peer-review › Journal article – Annual report year: 1999

Development of a sodium dodecyl sulfate-polyacrylamide gel electrophoresis reference method for the analysis and identification of fish species in raw and heat-processed samples: A collaborative study
Publication: Research - peer-review › Journal article – Annual report year: 1999

Species identification of cooked fish by urea isoelectric focusing and sodium dodecylsulfate polyacrylamide gel electrophoresis: a collaborative study
Publication: Research - peer-review › Journal article – Annual report year: 1999

Synthesis and degradation of adenosine triphosphate in cod (Gadus morhua) at subzero temperatures
Publication: Research - peer-review › Journal article – Annual report year: 1999

Factors affecting the quality of frozen meat and fish
Publication: Research - peer-review › Book chapter – Annual report year: 1998

Freeze denaturation of fish proteins investigated by DSC
Publication: Research › Book chapter – Annual report year: 1998
Relation between TMAOase activity and content of formaldehyde in fillet minces and bellyflap mince from gadoid fishes
Publication: Research › Journal article – Annual report year: 1997

Relation between TMAOase activity and content of formaldehyde in fillet minces and bellyflap mince from gadoid fishes
Publication: Research › Journal article – Annual report year: 1997

Fish quality - role of biological membranes
Publication: Research › Report – Annual report year: 1995

Influence of variation in methodology on reliability of the isoelectric focusing method of fish species identification
Publication: Research - peer-review › Journal article – Annual report year: 1995

Partial purification and characterization of a cellular acidic phospholipase A2 from cod (Gadus morhua) muscle
Publication: Research - peer-review › Journal article – Annual report year: 1995

Projects:

Developing a decision support tool for process optimization for fish product
Project: PhD

Nuutaq: New concept for production of cod in Greenland - Best-practice with focus on quality and sustainability
Project: PhD

Improving bio-utilisation of marine algae as sustainable feed ingredients to increase efficiency and quality of aquaculture production
Project

Sustainable technologies for optimization of resources and quality in shrimp production
Project

Mass spectrometry-based structural characterization of cross-linked peptides from extracellular matrix proteins
Project: PhD

Identification and quantification of antimicrobial and antioxidant peptides formed during processing of nitrite cured cooked pork products (IQ-Pork)
Project: PhD

High value protein products in seaweed
Project

Rapid methods for determination of enzyme activity and degree of ripeness - herring (pelagic)
Project

New analytical process programs- and technologies for optimisation of acid marinated herring production
Project: PhD

Udvikling af bæredygtige innovative fødevareingredienser på basis af ørredrestprodukter
Project

Muscle-specific stability of pork packaged in modified atmosphere during refrigerated storage
Project: PhD
Development and characterization of nano-microstructures as carrier for bioactive compounds
Project: PhD

Functional Electrospun Nanostructures and Microstructures for Food and Bioengineering Applications
Project

Discovery and characterization of novel bioactive peptides from marine secondary products
Project: PhD

Screening the redox-, glyco- and phosphoproteomes in lactobacillus acidophilus NCFM and related bacteria
Project: PhD

Aquatic Resources as a Source of Potential Natural Antioxidants for Food Industry
Project

Utilisation of bioactive peptides from fish processing - Upgrading the value of secondary products.
Project

Fiskekvalitet og fiskehelse- sygdoms indflydelse på kødkvalitet hos fisk
Project: PhD

Allergenicity of Peptides from Food Allergens - a Food Allergy Sensitisation Study
Project: PhD

Healthy, Nutritious and Tasty Fish for the Future
Project: PhD

Superfrysnings af fisk - optimering af kvalitet og økonomi
Project: PhD

Ultra Lav Temperatur Forsyningskæde for akvakultur produkter baseret på Ørred og Ørredkaviar
Project

Organic Aquaculture - the linkage between sustainable production and superior products
Project

Prediction of technological and sensory quality of trout
Project

Vækst hastighed og kvalitet af opdrætsfisk - Effekt af avisarbejde på regnbuesørred
Project: PhD

Proteome analysis of muscle tissues: Two dimensional protein mapping of pig and cod muscle.
Project

Kvalitet af muskelbaserede fiskeprodukter
Project: PhD

Membranbundne enzymer som fryselagringsindikatorer
Project: PhD
2D og 3D objektmåling til styring og kvalitetskontrol i industrien
Project: PhD

Quality indicators for frozen fish
Project

Advanced methods for identification and quality monitoring of (heat) processed fish
Project

Purification and characterization of TMAOase of salthe and hake.
Project

Thaw-rigor
Project

Activities:

'The minimum resting period for Atlantic cod (Gadus morhua) to regain pre-stressor status after pumping in a capture-based aquaculture operation'. Abstract and poster presentation at 47th Conference of the West European Fish Technologists’Association, in Dublin, Ireland.
Activity: Talks and presentations › Conference presentations

2DE based proteomics for prediction and understanding of seafood quality
Activity: Talks and presentations › Guest lectures, external teaching and course activities at other universities