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Institut for Kemi og Biovidenskab
Det Ingeniør- og Naturvidenskabelige Fakultet
Section of Bioresources and Process Engineering
Food Protein Analytics & Informatics
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Kvalifikationer

Nanobioorganisk Kemi, Ph.D., Flourescent peptide-stabilized silver-nanoclusters: A solid-phase approach for high-throughput ligand discovery, University of Copenhagen
15 dec. 2010 → 4 feb. 2014
Dimissionsdato: 10 apr. 2014

Nanobioteknologi, M.Sc., Fmoc Fastfase Peptidsyntese af Nye Linære og Cykliske D,L- α -Peptides: Et Sammenlignende Studie af Supramolekylær Selvsamling og Antimikrobiel Aktivitet, Institute of Physics and Nanotechnology, Aalborg
1 sep. 2008 → 25 jun. 2010
Dimissionsdato: 25 jun. 2010

Nanobioteknologi, B.Sc., De novo Design og Syntese af Cationiske Antimikrobielle Peptider
1 sep. 2005 → 27 jun. 2008
Dimissionsdato: 27 jun. 2008

Ansættelse

Lektor
Lektor
Institut for Kemi og Biovidenskab
Det Ingeniør- og Naturvidenskabelige Fakultet
Aalborg, Danmark
1 mar. 2018 → 31 dec. 4712

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Det Ingeniør- og Naturvidenskabelige Fakultet
Aalborg Øst, Danmark
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Aalborg Øst, Danmark
1 mar. 2018 → 31 dec. 4712

Food Protein Analytics & Informatics
Det Ingeniør- og Naturvidenskabelige Fakultet
1 jan. 2025 → present

Ekstern Konsulent
VBM Laboratoriet A/S
Aabybro, Danmark
1 mar. 2018 → 1 jan. 2020

Udviklingskemiker og Projektleder

VBM Laboratoriet A/S

Aabybro, Danmark

1 aug. 2014 → 28 feb. 2018

Post.Doc.

University of Copenhagen

Copenhagen, Danmark

1 mar. 2014 → 31 jul. 2014

Videnskabelig Assistent

University of Copenhagen

Copenhagen, Danmark

15 dec. 2013 → 28 feb. 2014

Ph.D. Studerende

University of Copenhagen

Copenhagen, Danmark

15 dec. 2010 → 14 dec. 2013

Publikationer

Selective removal of green pigments and associated proteins from clover-grass protein concentrates: molecular insights into a non-destructive, two-stage membrane-based biorefinery concept for high-quality food protein production

Gregersen Echers, S., Abdul-Khalek, N., Jensen, N. H., Jørgensen, A. K., Mattsson, T., Jørgensen, M. K., Lübeck, P. S. & Lübeck, M., 1 dec. 2025, (E-pub ahead of print) I: Sustainable Food Technology.

Residual barley proteins in brewers' spent grains: Quantitative composition and implications for food ingredient applications

Gregersen Echers, S., Mikkelsen, R. K., Abdul-Khalek, N., Queiroz, L. S., Hobbey, T. J., Schulz, B. L., Overgaard, M. T., Jacobsen, C. & Yesiltas, B., dec. 2025, I: Innovative Food Science and Emerging Technologies. 106, 14 s., 104277.

What's left from the brew? Investigating residual barley proteins in spent grains for downstream valorization opportunities

Gregersen Echers, S., Mikkelsen, R. K., Abdul-Khalek, N., Queiroz, L. S., Hobbey, T. J., Schulz, B., Overgaard, M. T., Jacobsen, C. & Yesiltas, B., 27 mar. 2025, bioRxiv, 49 s.

Targeted hydrolysis of native potato protein: A novel workflow for obtaining hydrolysates with improved interfacial properties

Gregersen Echers, S., Jafarpour, A., Yesiltas, B., García Moreno, P. J., Greve-Poulsen, M., Hansen, D. K., Jacobsen, C., Overgaard, M. T. & Hansen, E. B., apr. 2023, I: Food Hydrocolloids. 137, 108299.

Is Gigartina a potential source of food protein and functional peptide-based ingredients? Evaluating an industrial, pilot-scale extract by proteomics and bioinformatics

Gregersen Echers, S., Abdul-Khalek, N., Mikkelsen, R. K., Holdt, S. L., Jacobsen, C., Hansen, E. B., Olsen, T. H., Sejberg, J. J. P. & Overgaard, M. T., dec. 2022, I: Future Foods. 6, 100189.

Advancing green biorefining from the bottom-up: From grass to food protein and ingredients aided by proteomics and bioinformatics

Gregersen Echers, S., Mattsson, T., Jørgensen, M. K., Gundersen, E., Heiske, S. U., Holt, C., Olsen, M., Stephensen Lübeck, P. & Lübeck, M., 22 sep. 2022.

Peptide emulsifiers from potato: Structure/function and targeted release

Gregersen Echers, S., García Moreno, P. J., Yesiltas, B., Jafarpour, A., Bjørllie, M., Hansen, E. B., Marcatili, P., Jacobsen, C., Jones, N. C., Hoffmann, S. V., Wimmer, R. & Overgaard, M. T., 22 sep. 2022.

Targeted hydrolysis of native potato protein: A novel route for obtaining hydrolysates with improved interfacial properties
Gregersen Echers, S., Jafarpour, A., Yesiltas, B., García Moreno, P. J., Greve-Poulsen, M., Hansen, D. K., Jacobsen, C., Overgaard, M. T. & Hansen, E. B., 25 maj 2022, bioRxiv.

A potent peptide emulsifier from potato storage proteins and its natural isoforms: Insight into the structure/function relationship of amphipathic, α -helical peptide emulsifiers, their targeted release, and applicability.
Gregersen Echers, S., García Moreno, P. J., Yesiltas, B., Jafarpour, A., Bjørlie, M., Hansen, E. B., Marcatili, P., Jacobsen, C., Jones, N. C., Hoffmann, S. V., Wimmer, R. & Overgaard, M. T., 11 apr. 2022.

Proteomic characterization of pilot scale hot-water extracts from the industrial carrageenan red seaweed *Euचेuma denticulatum*

Gregersen Echers, S., Pertseva, M., Marcatili, P., Holdt, S. L., Jacobsen, C., García Moreno, P. J., Hansen, E. B. & Overgaard, M. T., mar. 2022, I: Algal Research. 62, 15 s., 102619.

Enzymatic extraction improves intracellular protein recovery from the industrial carrageenan seaweed *Euचेuma denticulatum* revealed by quantitative, subcellular protein profiling: A high potential source of functional food ingredients

Gregersen Echers, S., Havgaard Kongsted, A.-S., Brønnum Nielsen, R., Hansen, S. S., Lau, F. A., Rasmussen, J. B., Holdt, S. L. & Jacobsen, C., 30 dec. 2021, I: Food Chemistry: X. 12, 100137.

Applying Quantitative Proteomics for Evaluation of Protein Quality, Nutritional Value, and Extraction Methods in Side-Streams of Industrial Carrageenan Production from the Red Seaweed *Euचेuma denticulatum* (Spinosum)

Gregersen Echers, S., Yesiltas, B., García Moreno, P. J., Naseri, A., Holdt, S. L., Jacobsen, C., Hansen, E. B., Marcatili, P. & Overgaard, M. T., 1 okt. 2021.

Microbial proteins: Moving from feed to food applications aided by proteomics and bioinformatics

Gregersen Echers, S., Yesiltas, B., García Moreno, P. J., Hegelund Olsen, T., Marcatili, P., Jacobsen, C., Hansen, E. B., Ntokou, E., Christensen, I. & Overgaard, M. T., 1 okt. 2021.

Quantitative proteomics and bioinformatics in seaweed food protein research: Evaluation of extraction methods, bioactive potential, and nutritional value.

Gregersen Echers, S., Yesiltas, B., García Moreno, P. J., Naseri, A., Holdt, S. L., Jacobsen, C., Hansen, E. B. & Overgaard, M. T., 27 sep. 2021, s. 17. 1 s.

Proteomic characterization of pilot scale hot-water extracts from the industrial carrageenan red seaweed *Euचेuma denticulatum*

Gregersen Echers, S., Pertseva, M., Marcatili, P., Holdt, S. L., Jacobsen, C., García-Moreno, P. J., Hansen, E. B. & Overgaard, M. T., 14 dec. 2020, 41 s. bioRxiv.

Insight into the structure/function relationship in amphipathic, α -helical peptide emulsifiers: A study of a highly potent peptide emulsifier derived from potato storage proteins and its natural isoforms.

Gregersen Echers, S., García Moreno, P. J., Yesiltas, B., Hansen, E. B., Marcatili, P., Jacobsen, C., Jones, N. C., Hoffmann, S. V., Wimmer, R. & Overgaard, M. T., 22 jan. 2020.

Peptide-Stabilized, Fluorescent Silver Nanoclusters: Solid-Phase Synthesis and Screening

Gregersen, S., Jensen, K. J. & Vosch, T. A. J., 3 nov. 2016, I: Chemistry: A European Journal. 22, 51, s. 18492-18500 s., 8.

Flourescent peptide-stabilized silver-nanoclusters, a solid-phase approach for high-throughput ligand discovery

Gregersen, S., 4 feb. 2014, 1 udg. Copenhagen: Copenhagen University. 172 s.

Novel Peptide Ligands for Stabilization of Fluorescent, Silver Nanoclusters: On-resin Screening of a Peptide Library

Gregersen, S., Jensen, K. J. & Vosch, T. A. J., 13 maj 2013, I: Journal of Peptide Science. 100, s. 269-270 1 s., YI-P 107.

Novel Peptide Ligands for Stabilization of Fluorescent, Silver Nanoclusters: On-resin Screening of a Peptide Library
Gregersen, S., Jensen, K. J. & Vosch, T. A. J., 13 maj 2013.

Peptides as Ligands for Fluorescent, Silver Nanoclusters: Development of a Novel Platform for On-resin Screening
Gregersen, S., Jensen, K. J. & Vosch, T. A. J., 13 maj 2013, I: Journal of Peptide Science. 100, s. 294-1 s., YI-P 216.

Peptides as Ligands for Fluorescent, Silver Nanoclusters: Development of a Novel Platform for On-resin Screening
Gregersen, S., Jensen, K. J. & Vosch, T. A. J., 13 maj 2013.

Priser

1st place, 2018 AAU PhD/PostDoc Science Slam

Gregersen, S. (Modtager), 9 nov. 2018

Young Investigator Poster Award

Gregersen, S. (Modtager), 27 jun. 2013

Bevillinger

PROINSECT: Discovering new functional ingredients from yellow mealworm and black soldier fly biomass using bioinformatic tools (PROINSECT)

Gregersen, S. (PI (principal investigator))

Ministeriet for Fødevarer, Landbrug og Fiskeri: 1.241.269,00 kr.

01/04/2025 → 31/03/2028

Projekter

AQUALity

Gregersen, S. (Supervisor), Boffa, V. (PI (principal investigator)), Roslev, P. (PI (principal investigator)) & Jørgensen, M. K. (PI (principal investigator))

01/09/2017 → 30/09/2022

HQProtein: Development of high quality grass-protein foods

Lübeck, M. (CoPI), Jørgensen, M. K. (Projektdeltager), Gregersen, S. (Projektdeltager), Jørgensen, A. K. (Projektdeltager), Mattsson, T. (Projektdeltager), Orlien, V. (PI (principal investigator)), Olsen, K. (Projektdeltager), Frøst, M. B. (Projektdeltager), Lübeck, P. S. (Projektdeltager), Olsen, M. (Projektdeltager), Brøns, L. (Projektdeltager) & Jørgensen, M. (Projektdeltager)

01/01/2023 → 31/12/2025

PROINSECT: Discovering new functional ingredients from yellow mealworm and black soldier fly biomass using bioinformatic tools (PROINSECT)

Gregersen, S. (PI (principal investigator))

Ministeriet for Fødevarer, Landbrug og Fiskeri

01/04/2025 → 31/03/2028

Flourescent peptide-stabilized silver-nanoclusters: A solid-phase approach for high-throughput ligand discovery

Jensen, K. J. (Supervisor), Vosch, T. A. J. (Supervisor) & Gregersen, S. (PI (principal investigator))

Familien Hede Nielsens Fond, William Demant Fonden

15/12/2010 → 31/07/2014

Q-BIOPEP: KVANTIFICERING AF BIOAKTIVE FØDEVAREPEPTIDER FRA KARTOFFELPROTEIN

Gregersen, S. (CoPI), Wimmer, R. (PI (principal investigator)) & Abdul Khalek Gharzeddine, N. (Projektdeltager)

Karl Pedersen og Hustrus Industrifond

15/06/2021 → 14/06/2024

PhyPro: Phytochemical Protein Modification – Friend or Foe?

Lübeck, M. (PI (principal investigator)), Gregersen, S. (CoPI), Wimmer, R. (Col (co-investigator)), Keppler, J. (Col (co-investigator)) & Badfar, N. (Projektdeltager)

Danmarks Frie Forskningsfond | Teknologi og Produktion

01/04/2022 → 31/12/2025

SvampeMad: Produktion af nye proteinrige fødevaringredienser ved fermentering af organiske restprodukter

Lübeck, M. (PI (principal investigator)), Gregersen, S. (Projektdeltager), Stephensen Lübeck, P. (Projektdeltager), Schierbeck-Hansen, J. (Projektdeltager), Christiansen, A. H. C. (Projektdeltager), Yang, L. (Projektdeltager), Orlén, V. (Projektdeltager), Hansen, T. B. (Projektdeltager), Koch, A. G. (Projektdeltager), Larsen, O. V. (Projektdeltager), Wormslev, E. (Projektdeltager), Vukusic, M. (Projektdeltager), Hamann, K. T. (Projektdeltager), Andersen, E. (Projektdeltager), Rusbjerg-Weberskov, C. E. (Projektdeltager) & Terp, M. (Projektdeltager)

01/01/2023 → 30/06/2026

PROVIDE: Protein valorization through informatics, hydrolysis, and separation

Gregersen, S. (Col (co-investigator)), Overgaard, M. T. (CoPI), Hansen, E. B. (PI (principal investigator)), Bang-Berthelsen, I. (Projektkoordinator), Jacobsen, C. (CoPI), García Moreno, P. J. (Col (co-investigator)), Marcatili, P. (CoPI) & Yesiltas, B. (Col (co-investigator))

01/09/2017 → 30/12/2022

GRAINPEP: Revealing structure-function relationship of novel spent grain peptides identified by proteomics and bioinformatics

Gregersen, S. (Col (co-investigator)), Jacobsen, C. (PI (principal investigator)), Yesiltas, B. (Projektleder), Overgaard, M. T. (CoPI), Knaapila, M. (CoPI) & Mikkelsen, R. K. (Projektdeltager)

Novo Nordisk Foundation

01/04/2022 → 31/08/2025

SAFEPRO: SAFE sustainable PROtein sources for the future

Bøgh, K. L. (PI (principal investigator)), Sancho, A. (Col (co-investigator)), Lübeck, M. (Col (co-investigator)), Lübeck, P. S. (Projektdeltager), Bitsch, S. (Projektdeltager), Christensen, M. W. (Projektdeltager), Gregersen, S. (Projektdeltager) & Badfar, N. (Projektdeltager)

01/06/2022 → 01/12/2024

Græs4Food: Udvikling af en membranproces til raffinering af høj kvalitets fødevarerprotein fra kløvergræs og lucerne

Lübeck, M. (PI (principal investigator)), Stephensen Lübeck, P. (Col (co-investigator)), Heiske, S. U. (Projektdeltager), Jørgensen, M. K. (Col (co-investigator)), Jørgensen, A. K. (Projektdeltager), Gregersen, S. (Projektdeltager) & Mattsson, T. (Projektdeltager)

01/07/2020 → 31/12/2024

LEAF2FOOD: Unraveling the importance of processing green leafy biomass for the technofunctional properties of food proteins.

Lübeck, M. (PI (principal investigator)), Gregersen, S. (Col (co-investigator)), Jørgensen, M. K. (Col (co-investigator)), Wimmer, R. (Col (co-investigator)), Jørgensen, A. K. (Projektdeltager), Orlén, V. (Col (co-investigator)) & Johansson, E. (Col (co-investigator))

01/01/2025 → 31/08/2027

Datasæt**CodfishHydrolysatesMS**

Gregersen, S. (Ophavsperson), Mendeley Data, 25 nov. 2020

DOI: 10.17632/pc5h9drk6d.2, <https://data.mendeley.com/datasets/pc5h9drk6d>

E.denticulatum quant BUP

Gregersen, S. (Ophavsperson), Mendeley Data, 10 okt. 2021

DOI: 10.17632/y4kmb3tvx.2, <https://data.mendeley.com/datasets/y4kmb3tvx>

E.denticulatum Quant Method Validation

Gregersen, S. (Ophavsperson), Mendeley Data, 6 dec. 2021

DOI: 10.17632/c8hkst76t4.1, <https://data.mendeley.com/datasets/c8hkst76t4>

Gigartina pilot scale protein extract BUP

Gregersen Echers, S. (Ophavsperson), Abdul Khalek Gharzeddine, N. (Ophavsperson) & Overgaard, M. T. (Ejer), PRoteomics IDentifications Database (PRIDE), 26 sep. 2022

DOI: 10.6019/PXD034435

Methotrophic Biomass Quant BUP

Gregersen, S. (Ophavsperson), Mendeley Data, 14 apr. 2021

DOI: 10.17632/g45gbw5r7n.1, <https://data.mendeley.com/datasets/g45gbw5r7n>

Methotrophic Biomass Quant BUP part2

Gregersen, S. (Ophavsperson), Mendeley Data, 14 apr. 2021

DOI: 10.17632/76v7mnmyr3.1, <https://data.mendeley.com/datasets/76v7mnmyr3>