NEWSLETTER August 2023



#### News from the chair

We are happy to hereby announce the next issue of the Food and Nutrition Network newsletter. The past year has been very eventful with the opening of the Forum building at Aarhus University Hospital (AUH) in September 2022 and the spectacular closing event for the Danish Science Festival (Forskningens Døgn) in spring 2023 with more than 500 participants, which you can read more about below. Next year, we will repeat the more traditional annual research meeting on April 3, so stay updated about the annual meeting programme at our <u>network website</u>.

Aarhus University (AU) together with AUH have great facilities for food and nutrition research, and the network will like to make these more accessible for members of the network by inviting to visits at research sites throughout the University and University Hospital – and at collaborating industry partners. In 2022, Sport Science at the Dept. of Public Health opened the doors and, in spring 2023, we visited the Arla Innovation Centre. We will continue to organize site visits at other departments – this fall we will visit Dept. of Dentistry and Oral Health and next year Arla Food Ingredients. The site visits are open for all members of the network, and we hope that you will take this opportunity to meet researchers and explore potential collaborations.

We believe that one of the foremost duties of the Food and Nutrition Network is to elevate the Health perspective on the nutritional field – not only at AU but also nationally. Therefore, the steering committee is currently seeking to promote the health aspects of the nutritional field locally at AU through engagement in several cross-faculty initiatives and fora but also in broader sense within Denmark by increasing awareness among relevant national academies, and please contact members of the steering committee if you have suggestions for additional activities that will promote our research field.

Niels Jessen, Chair of the Food and Nutrition Network

# The Steering Committee has expanded with three new members

Recently, the <u>steering committee</u> of the Food and Nutrition Network has expanded with three new members. The expansion of the steering committee is the result of a decision to broaden the

professional width, and also strengten the focus on the clinical domain of the network. We are proud to welcome Associate Professor <u>Christian Lodberg Hvas</u> from Dept. of Clinical Medicine - Hepatology and Gastroenterology, Associate Professor <u>Emma Börgeson</u> from Dept. of Biomedicine, and Associate Professor <u>Rodrigo Grassi-Oliveira</u> from Dept. Clinical Medicine – Translational Neuropsychiatry Unit in the steering committee.

# New focus group within the Food and Nutrition Network | The Muscle Focus Group

The interdisciplinary Muscle Focus Group aims to bring together researchers from Health at Aarhus University, who are interested in understanding the role of skeletal muscle in health and disease. The goal of this group is to promote the discussion of cutting edge-research with our colleagues, in order to spark interdisciplinary collaborations that will lead to scientific breakthroughs and facilitate the development of therapeutic interventions. The Muscle Focus Group will organize monthly meetings with research presentations, flash talks and networking sessions. We will kick-off the Muscle Focus Group with a special event on October 2<sup>nd</sup>, featuring international speakers Laurie Goodyear from Harvard University and Håkon Westerblad from the Karolinska Institute.

To join the focus group, please e-mail focus.muscle@au.dk

Organisers: Associate Professors <u>Jean Farup</u> and <u>Lars Hvid</u>, Assistant Professor <u>Ermelinda</u> <u>Porpiglia</u> in collaboration with our network steering committee member <u>Mette Hansen</u>.

# The Danish Science Festival - Closing Event | April 28, 2023



This year's annual meeting of the Food and Nutrition Network took a new format. In collaboration with Steno Diabetes Center Aarhus, the network hosted a <u>closing event for 'The Danish Science Festival' (Forskningens Døgn)</u> – a public event that took place in the Forum building at AUH on April 28<sup>th</sup> under the theme "Sustainable Health".

Here, more than 500 research curios people gathered to meet a range of our great researchers, sharing their perspectives on sustainable health – and to figure out whether healty and sustainable diets are comptabile. This included excellent talks by leading experts in the nutritional field Associate Professor Christina Dahm from Dept. of Public, Professor Jens Meldgaard Bruun from SDCA & Dept. of Clinical Medicine, Professor Jette Feviele Young from Dept. of Food Science, and Professor Ole Frøbert from SDCA & Dept. of Clinical Medicine. Talks during the day touched, among other things, upon the health effects of lab-grown meat and how brown bears can hibernate for months with seemingly no cost to their cardiovascular health.





Besides exciting and insideful talks, the event hosted numerous workshops, where both children and adults could participate and learn about sustainable health on topics such as how the world's healthiest corn-type can impact obesity and diabetes, why milk is white, and why foods with certain colours appears more intriguing to ingest. Last but not least, Associate

Professor <u>Alexander Fjældstad</u> from Dept. of Clinical Medicine hosted together with the chef and gastromist Rasmus Bredahl a workshop that challenged our taste and smell senses. Read more and see all the photos in <u>this article</u>.







# Annual meeting | April 3, 2024

Please mark your calendar and save the date for the next annual research meeting of the Food and Nutrition Network, which has been scheduled for **3 April 2024**. We are already collecting inputs for the third annual meeting so

3 April 2024

please send inputs through the steering committee members or directly by mail to <u>research-networks.health@au.dk</u>. Stay updated about 2024 annual meeting at our <u>website</u>, which will be regularly updated.

# Site visit at the Department of Dentistry and Oral Health



On September 13<sup>th</sup>, the Food and Nutrition Network is hosting our next site visit at Dept. of Dentistry and Oral Health (IOOS), where the Deputy Head for Research Professor <u>Lene Baad-Hansen</u> and the Strategic Research Coordinators Professor <u>Jan Wolff</u>, Associate Professors <u>Rubens Spin-Neto</u> and <u>Sebastian Schlafer</u> will introduce interdisciplinary research topics and research facilities. The site visit also includes a guided tour at the research facilities, where you will get the chance to see, among other

things, the world's first dental dedicated magnetic resonance scanner and to interact with local researchers as well as other network members. For more information on the site visit, please see the <u>programme</u>.

**Date and time**: September 13th, 2023 @14:30 - 16:00

**Location**: Dept. of Dentistry and Oral Health, Vennelyst Boulevard 9, 8000 Aarhus C

**Registration:** Please register <u>here</u> no later than September 6

### New Flagship at Aarhus University - CellFood hub

Aarhus University gained in 2022 a new flagship named "CellFood hub". The CellFood hub, which is headed by Professor Jette Feveile Young from Dept. of Food Science, will during the next five years be focusing on research into cell-based food in coorperation with a varity of other departments and faculities at AU. CellFood is partially funded by Aarhus University Research Foundation AUFF and partially by fundings from other private and public investors. The work packages included in the CellFood hub cover a broad range of research opportunities, including future production of cell-based food, cultivated meat, and dairy products, food safety, nutritional values, as well as consumer acceptance of these new food products.

**Keep an eye on CellFood calls:** For the next three years, CellFood will annualy announce seed funding opportunies, which can support 1/3 PhD fellowships and project grants related to CellFood's fields of interest. For a complete list of supportable activities, please see the <u>CellFood</u> website.

Associate Professor <u>Mette Hansen</u> from Dept. of Public Health and member of the Food and Nutrition Network steering committee is represented in the CellFood Steering Committee, where

her main focus is the work package on food safety, nutritional values, and consumer acceptance. You are welcome to contact Mette for further information. E-mail: <a href="mailto:mhan@ph.au.dk">mhan@ph.au.dk</a>

# Barley bread – future healthy diet choice for type 2 diabetes patients?

The project studying effects of different types of barley bread compared to bread baked with wheat on postprandial blood glucose levels in type 2 diabetes patients was performed at Steno Diabetes Center Aarhus. The collaborative project is funded by Innovation Fund Denmark and the results were presented at the Diabetes Nutrition Study Groups Annual meeting in Pula, Croatia.

The study in subjects with type 2 diabetes shows that the acute glucose responses to intake of bread made of barley flour with high content of amylose elicits lower glycemic responses compared to bread made with wheat flour. Future research by the group will show if barley bread has a potential as a healthy bread alternative for subjects with type 2 diabetes. Read more about the results presented by Mette Bohl Larsen in June 2023.

Søren Gregersen, Dept. of Clinical Medicine and SDCA

# Highlights from 2023 - food and nutrition research at AU Health

#### January 2023

Associate Professor <u>Marina Romero-Ramos</u> from Dept. of Biomedicine received <u>DKK 5 million</u> from the Novo Nordic Foundation's <u>Exploratory Interdisciplinary Synergy Programme</u> to explore the interconnections of Parkinson's disease and the gut microbiome, including the anti-inflammatory and neuroprotective potential of advanced microbiome therapeutics.

Associate Professor <u>Esben Søndergaard</u> from the Dept. of Clinical Medicine received approx. <u>DKK 2.5 million from the Independent Research Fund Denmark</u> to study blood glucose regulation during exercise by people with type 1 diabetes with overall aim of developing better insulin guidelines and reducing blood glucose fluctuation.

#### **April 2023**

Postdoc <u>Sidsel Støy</u> form the Dept. of Clinical Medicine – Hepatology and Gastroenterology received an <u>Early-Career Clinician Scientist grant from the Lundbeck Foundation</u> of DKK 2,288,097 to explore potential predictive biomarkers for liver cirrhosis patients, who will respond positively to faecal microbiota transplantation (FMT).

Professor Ole Frøbert from the Dept. of Clinical Medicine, colleagues, and international collaborators have spent 13 years mapping the hibernating bear's defence against blood clots and

showed in a <u>study published in Science</u> that downregulation of the protein HSP47 during immobilisation protects against venous thromboembolism. <u>Read more about the study</u> that revealed thromboprotective mechanistic conservation across mammalian species.

#### May 2023

Postdoc <u>Daniel Borch Ipsen</u> from the Dept. of Public Health and Steno Diabetes Center Aarhus received a <u>Research grant from the Danish Diabetes Association</u> of DKK 600,000 to develop a tool that allows objective nutritional assessments in type 2 diabetes patients. <u>Read more about the project</u> (in Danish) that uses metabolomics and biomarkers from blood and urine to estimate the nutritional status.

#### June 2023

Fourteen researchers from Health received <u>a grant from the Independent Research Fund Denmark</u>. Amongst them is Professor <u>Peter Nejsum</u> who received two grants of DKK 6,187,824 and DKK 2,827,728 to investigate the applicability of extracellular vesicles as a natural delivery system of drugs and the response of the innate immune system to parasitic worms, respectively.

#### **July 2023**

PhD student <u>Mikkel Oxfeldt</u> and Associate Professor <u>Mette Hansen</u> from Dept. of Public Health – Sport Science and collaborators showed in a recent <u>study published in the *Journal of Physiology*</u> that inadequate energy intake by female athletes not only reduces the ability of their muscles to respond to training but also impairs metabolism. <u>Read more about the randomised controlled trial</u> that revealed reduced integrated myofibrillar and sarcoplasmic muscle protein synthesis in eumenorrheic females following training with insufficient energy intake.

Postdoc and AIAS fellow <u>Luseadra McKerracher</u> from Dept. of Public Health and Aarhus Institute of Advanced Studies (AIAS) and collaborators from McMaster University in Canada showed in a recent <u>study published in *PharmaNutrition*</u> that many healthy pregnant women take probiotics without knowing whether it is beneficial. <u>Read more about the study</u> that revealed a strongly sociodemographic dependent perception of probiotic use as beneficial for their own and baby's health among pregnant women, despite lack of scientific evidence in uncomplicated pregnancies.

### Are you aware of the opportunities offered by the Danish national academies?

Did you know that we have three national academies in Denmark that might be relevant to you as a food and nutritional researchers? And did you know how you can benefit from the national academies?

You probably know the Danish Diabetes and Endocrine Academy (DDEA), which builds upon the former Danish Diabetes Academy, but now with an expanded focus to the entire field of endocrinology. DDEA has received a DKK 195 million grant from the Novo Nordisk Foundation for the period 2023-27. DDEA annually announces funding opportunities and currently have several open calls for PhD/Postdoc Fellowships and Visiting Researcher Grants with application deadline 23 August 2023. Read more about the funding opportunities offered by DDEA that also include support for education and networking activities as well as PhD courses and other events.

<u>The Danish Cardiovascular Academy</u> (DCAcademy) is supported by a combined DKK 180 million grant from the Novo Nordisk Foundation and the Danish Heart Foundation for the period 2021-26. DCAcademy is the only academy placed within the walls of Aarhus University and is headed by Professor <u>Christian Aalkjær</u> from Dept. of Biomedicine. Read more about <u>events</u> (e.g. PhD courses) and <u>funding opportunities</u> offered by DCAcademy such as PhD/Postdoc Fellowships (next call opens October 2023), travel grants, and Visiting Programmes.

The Danish Data Science Academy (DDSA) is supported by a combined DKK 184.3 million grant from the Novo Nordisk Foundation and the Villum Foundation for the period 2021-26. Like the other national academies, DDSA annually annually annually for both PhD and Postdoc Fellowships (next call 2024). For a complete overview of grants, courses and other events offered by DDEA, please see the <u>academy website</u>. Note that you throughout the year can apply for funding of <u>courses and events</u> as well as <u>Visit Grants</u>.

### Current funding opportunities for food and nutrition research

Below are examples of current funding opportunities. Please visit the <u>Research Support Office</u> website for a complete list and <u>sign up for their newsletter</u> to receive a monthly overview.

- The Novo Nordic Foundation has an open calls for <u>Investigator Initiated Trials</u> and <u>Clinical Accelerator Programme</u>. Application deadline is 16 August 2023.
- The Lundbeck Foundation has an open call for <u>Lundbeck Foundation Fellow</u>. Application deadline is 31 August 2023.
- The Novo Nordisk Foundation has an open call for <u>Exploratory Interdisciplinary Synergy Programme</u>. Application deadline is 31 August 2023.
- The Novo Nordisk Foundation has an open call for <u>Project Grants in Bioscience and Basic Biomedicine</u>. Application deadline is 5 September 2023.
- The Novo Nordisk Foundation has an open call for <u>Non-Diabetic Endocrinology Collaborative Project Grants</u>. Application deadline is 20 September 2023.
- The Novo Nordisk Foundation has an open call for <u>Challenge Programme 2024 Disentangling insulin resistance</u>. Application deadline is 25 October 2023.

- European Cooperation in Science and Technology (COST) has an open call for <u>COST Action</u> <u>proposals</u>. Application deadline is 25 October 2023.

# Upcoming events within food and nutrition

September 12, 2023 "Sunde Børn konferencen 2023" (in Danish)

September 13, 2023 Site visit at Dept. of Dentistry and Oral Health, AU

September 14-16, 2023 "International Symposium: Dietary Protein for Human Health",

Netherlands

October 24, 2024 "Ernæringsfokuskonferencen 2023" (in Danish)

November 23, 2023 Site visit at Dept. of Biomedicine, AU

January 24, 2024 3<sup>rd</sup> Annual Meeting, AU

Spring, 2024 Site visit at Arla Food Ingredients

# Happy autumn – share your good news

The Food and Nutrition Network would like to share and promote all relevant news and activities within the network via our newsletter. We therefore encourage you to submit any input and news of interest to the network (e.g. publications, grants, conferences, seminars, open positions) to research-networks.health@au.dk.



Deadline for input to next newsletter: November 12, 2023