

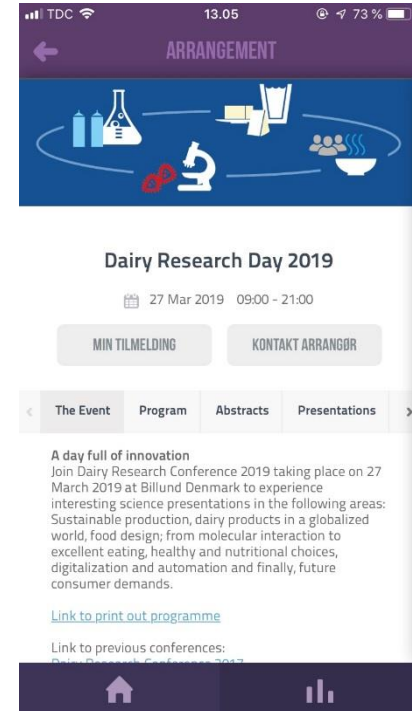
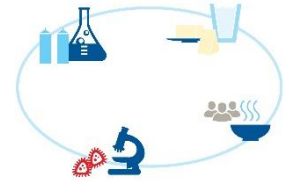
# Download the app to get access to...

- Program
- Abstracts and presentations
- List of participants

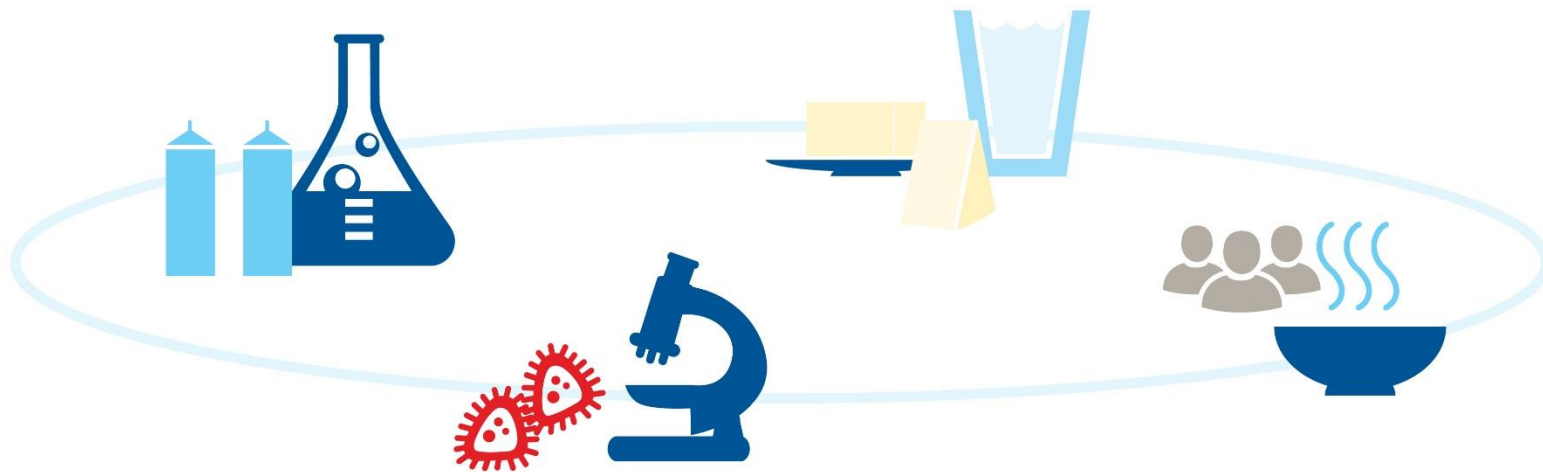
Download the app 'CM Events' from App Store, Google Play or Windows Store.

Presentations may also be found at:

[www.dairyresearchday.dk](http://www.dairyresearchday.dk). Password: DRC2019

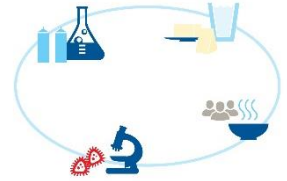


# Welcome to Dairy Research Conference 2019



Hans Henrik Lund and Grith Mortensen, Danish Dairy  
Research Foundation  
27 March 2019, Billund

# Stronger Together



## - Dairy Research Matching Future Needs

- The 5th Dairy Research Conference – the first one was in 2011
- 199 participants
- Participants and speakers from nine countries
- Organized by:
  - Danish Dairy Research Foundation
  - Danish Society of Dairy Technology
  - Association of MSc in Dairy Science and Technology
  - Association of Dairy Managers and Specialists
  - Danish Agriculture & Food Council



# The team behind the conference

- they are here to help you today!



**Katrine L. Bøgh**  
DTU



**Fergal Rattray**  
University of Copenhagen



**Trine K. Dalsgaard**  
Aarhus University



**Jacob H. Nielsen**  
Arla Foods Ingredients



**Hans Henrik Lund**  
Arla Foods



**Per M. Olsen**  
Arla Foods



**Morten Christiansen**  
ÅF



**Merete Myrup**  
Danish Agriculture &  
Food Council



**Grith Mortensen**  
Danish Dairy Research  
Foundation



**Camilla W. Hansen**  
Mælkeritidende



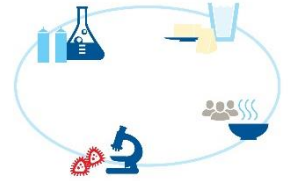
**Jette Rohde**  
Mælkeritidende



**Anne-Sofi Christiansen**  
FMF – DMF – DMS

# And our two chairmen

From the Danish Dairy Research Foundation

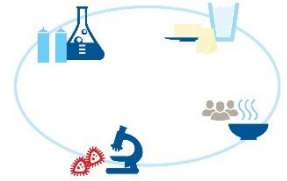


Henrik J. Andersen  
Arla Foods Ingredients



Poul J. Pedersen  
Thise Dairy

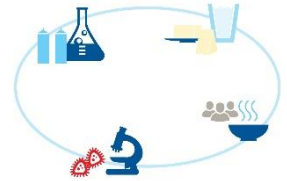
# Program overview – morning



09:30-10:00	Welcome and introduction to new strategy 2022 from the Danish Dairy Research Foundation Hans Henrik Lund & Grith Mortensen, Danish Dairy Research Foundation
10:00-10:40	Stronger when working together Jan Toft Nørgaard, Arla Foods
10:40-11:00	Dairy Break
11:00-12:30	Parallel sessions 1 and 2 #1. Sustainable production through the value chain (room B+C) #2. Dairy products in a globalized world
12:30-13:30	Lunch

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# Program overview



11:00-11:30

Sustainable milk production and the impact on milk quality and functionality

Nina Aagaard Poulsen, Aarhus University

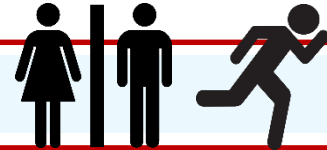
11:30-11:50

REWARD – REuse of WAtER in the Dairy Industry

Søren Balling Engelsen, University of Copenhagen

11:50-12:00

Break/transfer



12:00-12:20

Valorization of dairy side streams using bacterial cell factories

Christian Solem, Technical University of Denmark

12:20-12:30

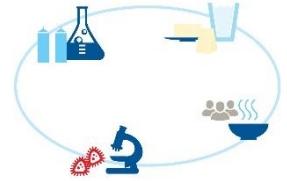
Differentiation of milk, including organics, with storage outside the cold chain

Marije Akkerman, Aarhus University

12:30-13:30

Lunch

# Program overview – afternoon



13:30-15:00

Parallel sessions 3 and 4

#3. Food design – from molecular interaction to excellent eating

#4. Healthy and nutritious choices

15:05-16:10

Tour de science including coffee break

16:15-17:45

Parallel sessions 5 and 6

#5. Digitalization and automation

#6. Future consumer demands

17:45-18:00

Closing remarks

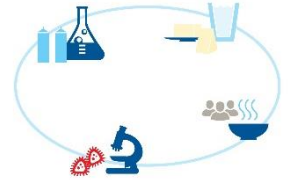
18:00-?

Networking dinner (optional)



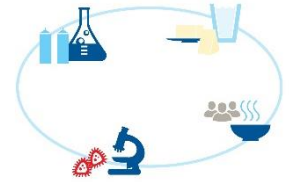
# Tour the Science – the stops

## Time for 4 stops



1	Future consumer lab	Belinda Lange and Sandra Stolzenbach Wæhrens, University of Copenhagen
2	ESS – what on earth is that? And can it be used to characterize dairy products?	Jacob Kirkensgaard, University of Copenhagen
3	Introduction to omics	Lotte Bach Larsen and Søren Drud-Heydary Nielsen, University of Aarhus
4	Applications of 3rd generation sequencing in dairy research	Lukasz Krych, University of Copenhagen
5	NMR – what is it and what can it be used for?	Hanne Bertram, University of Aarhus
6	How can dairy ingredients contribute to better nutrition for malnourished children in developing countries?	Charlotte Sørensen, Arla Foods
7	Proteins for the future – differences in animal and plant protein	Anne Vuholm Sunds, University of Aarhus
8	Heat treatment of milk: shelf life vs. chemical changes. Can you taste the difference?	Michael Crafacck and Valentin Rauh, Arla Foods

# Practicalities



 **LEGOLAND HOTEL**  **LEGOLAND HOLIDAY VILLAGE**

**Periodekort Parking permit**

Kun gyldigt på **HOTEL LEGOLAND LEGOLAND HOLIDAY VILLAGE** Only valid at **HOTEL LEGOLAND LEGOLAND HOLIDAY VILLAGE**

Dato/Date: 24/3 til/to 31/3 2019

Firma/Company Dairy Research Conference

Udstedt af: Lone Schmidt  
issued by:

**Kun gyldig:** Only valid:

- Korrekt udfyldt med dato og underskrift  
Duty signed and dated
- Originalt kort eller print af pdf  
Original permit or printed from PDF
- Synligt i bilens forrude  
Visible in the car's windscreen
- Letlæseligt udefra  
Legible from the outside
- Ikke rettet på kortet  
Not edited



Det er brugerens eget ansvar, at ovenstående bliver overholdt. Ellers er vagten berettiget til at udstede kontrolgebyr, som **ikke kan annulleres**.  
The above is your own responsibility. Failing to observe the above, may result in a parking fee, which can not be cancelled.

**OBS - Periodekortet gælder ikke på p-pladser forbeholdt; Bilfund Bad Se venligst skiltning på parkeringspladsen**  
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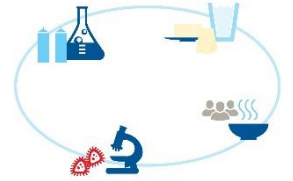
## Dairy breaks

Morning: A selection of fermented products

Afternoon: Skyr cake



# Practicalities



Download the presentations from [www.dairyresearchday.dk](http://www.dairyresearchday.dk), password: DRC2019 (capital letters) or view them via the app 'CM Events'

You will receive a questionnaire in your mailbox. Please help us develop the Dairy Research Conference



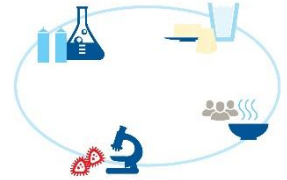
Strategy 2022

Danish Dairy  
Research  
Foundation



Increased competitiveness  
**through dairy research**

# Danish Dairy Research Foundation



DDRF initiates and coordinates **basic research** interacting closely with the dairy industry and e.g. universities, hospitals and the suppliers.

The projects are **pre-competitive** in nature and **underpin research-based innovation at the dairies.**

**Since the foundation of DDRF in 1990, the dairy sector has invested a DKK amount totaling three-digit millions into research at the universities through DDRF.**

## VISION

**The Danish dairy industry has a leading edge within sustainable production of differentiated, safe and healthy milk-based products.**

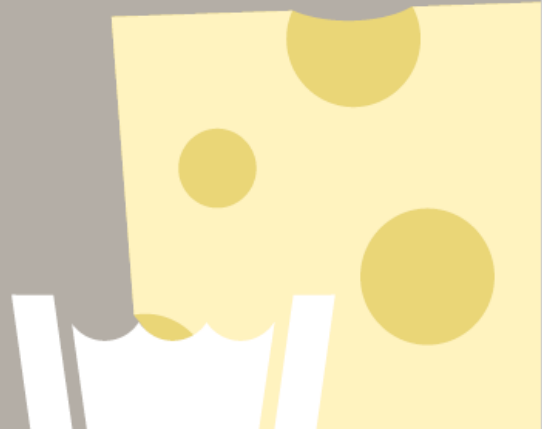
**Sustainable production** can be described as production in which raw materials and resources are utilized effectively, where production impacts nature and environment minimally and where all value streams are optimally utilized – without compromising on quality and competitiveness.

**Differentiated products** can be described as products meeting the perceived and unintended needs of the customers.

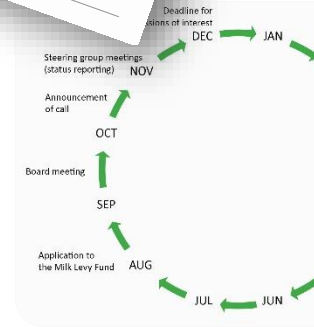
**Healthy products** can be described as products that in principle are documented to be nutrient dense, products that can meet the nutritional needs of the consumers and form part of a healthy and varied diet.

## MISSION

**To stimulate the competitiveness of the Danish dairy industry by supporting high-level dairy research initiatives.**



# This is how we work

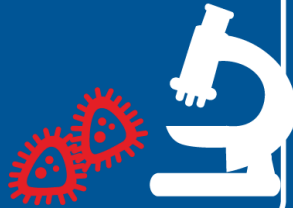


# Four strategic core areas

food design,  
technology &  
biotechnology



food safety  
& analyses



health  
& nutrition



food aid  
& better food  
for more people





# Food design, technology & biotechnology

Food Design.

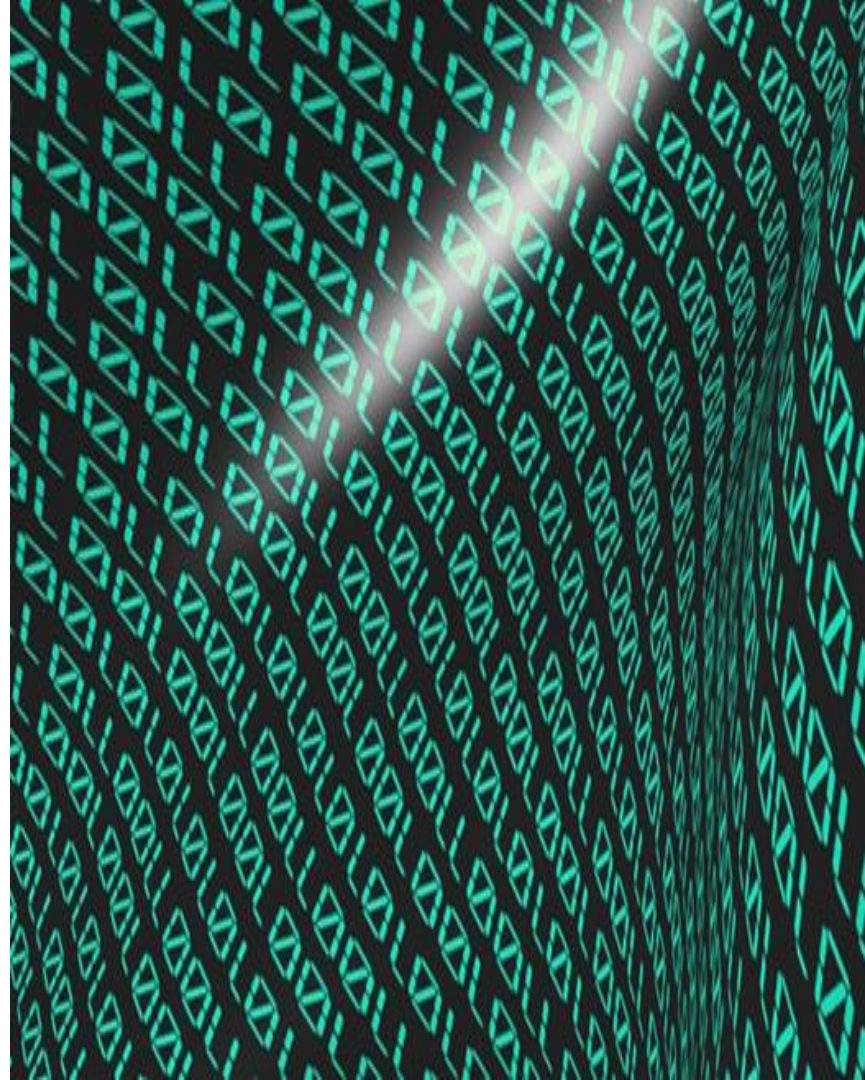
Structure and functionality and the link to sensory properties and shelf life.

Impact of processing, packaging and storage on product quality.

Biotechnology, including positive microbiology and fermentation and enzyme technologies.

New production technologies, automation and digitalization.

Produce more with less.



# Food safety & analyses

Understand and predict food safety risks when changing product formulation.

New methods to quantitatively and qualitatively analyze safety, quality and shelf-life as well as predict unwanted growth.

Development of online/at-line technologies.

Development of systems that ensures traceability and transparency in the entire value chain.





# Health & nutrition

Understand the role of dairy products and dairy ingredients in relation to:

- Health throughout life
- Growth of children and their cognitive functions, bone health and muscle function
- Age-related muscle loss (sarcopenia)
- Controlling blood glucose and the mechanisms behind metabolic syndrome and type 2 diabetes
- Feeling full and on controlling weight
- The impact on the intestinal flora
- The role of dairy products in the sustainable diet of the future.



# Food aid & better food for more people

Documentation of economically sustainable foods that can secure better food for more people.

Documentation of the nutrition and health-related effects of the milk components relative to malnutrition.

Documentation of criteria for successful distribution of nutritious products in areas with food shortages.



# Want to know more?

You will find the strategy and information about ongoing and completed projects at:  
[www.mejeri.dk/forskning](http://www.mejeri.dk/forskning)

## Feel free to contact:

Chairman:

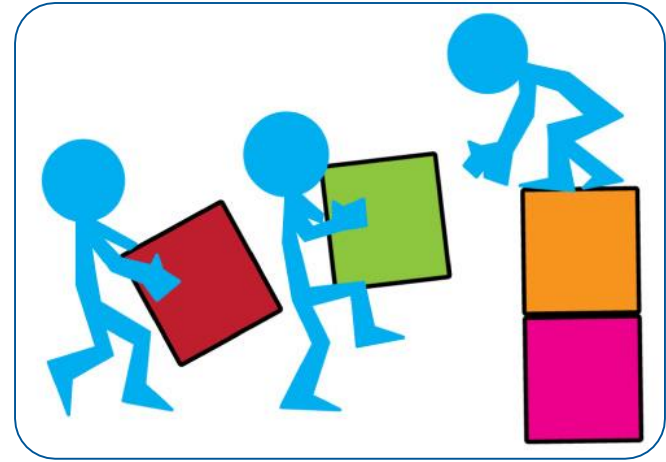
Hans Henrik Lund, [hhl@arlafoods.com](mailto:hhl@arlafoods.com)

Secretariat:

Kim Tram Sørensen, [kts@lf.dk](mailto:kts@lf.dk)

Grith Mortensen, [gmo@lf.dk](mailto:gmo@lf.dk)

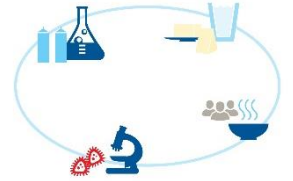




Jan Toft Nørgaard, Arla Foods

**Stronger when working together**

# What is next?



**Now-11:00: Dairy break**

**11:00-12:30 Parallel sessions:**

- Room C/D: Sustainable production in the entire value chain
- Auditorium A: Future consumer demands