

ARLA FOOD FOR HEALTH

2020 call for applications

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1 Introduction

Arla Food for Health (AFH) is pleased to announce the 2020 call for applications, for research projects to be funded in 2021.

AFH is a public-private research partnership between top ranked universities and the food industry, all of them engaged within new food solutions and dairy nutrition and health research: University of Copenhagen, Aarhus University, Arla Foods amba and Arla Foods Ingredients. The common vision is to **Discover health effects of dairy and dairy ingredients.**

The partnership is based on the conviction that equal collaboration through independent research activities, both nationally and internationally, are crucial for the ability to address several global health challenges.

The ambition is to push boundaries and foster world-class dairy science that subsequently can be applied in food design and new nutritional solutions with positive impact on global public health and nutritional status and thereby create value for individuals, the society and the collaborating partners.

The AFH partners are committed to create impact and objectively disseminate the scientific insights developed through the AFH projects. Moreover, the collaboration between the partners includes a targeted and coordinated public outreach that can serve as basis for a science-based nutrition and health dialogue with external stakeholders including authorities, NGOs, universities and other industries.

All partners seek to better understand the role of dairy foods in healthy, sustainable eating patterns. In particular, AFH is interested in promoting advanced research methodologies related to the milk value chain i.e., identification/characterization of active milk components, isolation and scaling up of production of these, in vitro and in vivo documentation of health effects of dairy foods or dairy ingredients as well as the mechanism behind these effects. Validation of these effects in high quality human studies are of special interest.

AFH emphasizes the scientific quality of the research proposed. As the total yearly fund is DKK 10 mill., typically 2-3 projects receive funding. These funds should be seed money, enabling initiation of the work and leading to further funding via e.g. public or private funds. The content of the application could be described as a phase of or an element in a larger and stronger research project. It is important to highlight if funding has been received from other funds and whether it is planned to obtain additional funding.

Previously AFH funded projects can be seen at https://arlafoodforhealth.com/funded-research/



2 Topics for 2020 call for applications

Project applications must be aligned and deliver on the overall AFH research categories; prevent/remedy metabolic syndrome, prevent/remedy malnutrition and enhance immune defense/response as specified at the AFH webpage: https://arlafoodforhealth.com/

The overall theme for 2020 call for applications is "Dairy in healthy sustainable diets".

In 2020, the AFH priority will be given to projects that address the overall theme "Dairy in healthy sustainable diets" with the focus on metabolic syndrome, and weight maintenance. Projects should focus on investigating the health effects of dairy foods or ingredients in food matrices and/or as part of whole diets in a sustainability perspective and/or by mapping of the underlying mechanisms in humans or suitable animal models. AFH gives priorities to research designs that are mechanistic and not just explorative. Projects only based on animal models of diseases or conditions, or restricted to a limited segment of the population are required to elaborate on translation of the results to the general human population or to describe what is needed to translate the use of data for the general population.

According to WHO/FAO the term 'healthy sustainable diets' applies to dietary patterns that promotes health and wellbeing, improves biodiversity, and are nutritionally adequate, accessible, culturally acceptable and affordable. Millions of people are suffering from different forms of malnutrition. Globally 1.9 billion adults are overweight or obese and 124 million children and adolescents are obese (WHO, SDG3). Focus is often directed to how the food/dairy industry affects greenhouse gas emission (GHGe) and conclusions have led to the belief that diets with low environmental impact are both sustainable and healthy. Poor quality diets are now one of the leading causes of mortality in the world, due to both inadequate consumption of nutritious foods and excess consumption of low-quality foods. These facts call for action, and that is why it is vital to consider the nutritional quality of foods in healthy sustainable diets in relation to wider health outcomes. Furthermore, excess intake of energy and of discretionary foods puts an additional pressure on climate (e.g. increase of GHGe). This emphasizes the need for investigation of cultural, palatable and nutritional diets.

Milk is a naturally nutritious food used to produce other dairy products and ingredients, many of them with a natural high nutrient content in relation to calories. Furthermore, concerns have been raised when dairy foods contain nutrients intended to be limited (e.g. saturated fat, salt and added sugar). For the past decades, researchers have investigated the metabolic effects of dairy products. Awareness has been raised that the nutrient content of a food alone does not necessarily predict its health effects including effects on metabolic control. Therefore, there is a need for understanding of effects on health properties of food matrices in general and specifically with regard to dairy foods and their inherited components. Conclusive clinical trials documenting health effects of well characterized dairy matrices, may also provide a generic understanding of the health effects of foods. To accomplish this, an understanding of mechanisms behind the health promoting effects are of importance.

Topics for the AFH 2020 call with areas of research mentioned to use as inspiration (continue on next page).



The role of dairy/dairy ingredients in healthy sustainable diets in relation to weight maintenance and prevention of obesity

- a. In-depth understanding on how body weight regulation is affected by presence of dairy/dairy ingredients in different healthy dietary patterns/meal solutions. Strategies involving dairy/dairy ingredients to prevent/limit overweight among adults, teenagers and toddlers.
 - i. The effect of different well characterized dairy matrices on cross talk between organs considering that different nutrients seems to elicit different digestibility/absorption patterns, signaling and metabolic responses related to weight maintenance/prevention of obesity.
 - ii. The mechanisms behind different dairy food solution's effect on blood glucose response, digestibility, hormone response, lean body mass, adipose tissue signaling, metabolic stress indicators, inflammation, composition and function of microbiota etc.
 - iii. Synergies between dairy and other whole food components.

The role of dairy in healthy sustainable diets to prevent/remedy metabolic syndrome

- b. In-depth understanding on how prevention/remedy of metabolic syndrome is affected by presence of dairy in different dietary patterns.
 - i. The different dairy food matrices' prevention of metabolic syndrome and the underlying mechanisms (e.g. blood sugar response, gut hormone response, insulin response, insulin sensitivity, central obesity, high blood pressure, serum triglycerides, serum high-density lipoprotein, systemic inflammation).
 - ii. Synergies between dairy and other whole foods in relation to prevent/remedy metabolic syndrome.
 - iii. Dairy based strategies to prevent/remedy metabolic syndrome.
 - iv. Recommended diets with different dairy content influence on <u>DALYs</u> considering effects of dairy intake on metabolic syndrome and related non-communicable diseases.



<u>3 The application process and important dates</u>

Like in 2019, the 2020 call includes an <u>optional consultancy</u> based on a one-page research proposal, which is an excellent opportunity for guidance and discussion in order to improve the quality of the applications. When evaluating the 2019 application round, it was clear that the external Scientific Advisory Board scored the scientific quality of the applications with a prior optional consultancy (one-page research proposal) higher compared to applications without optional consultancy. This underlines the value of the consultancy process in terms of scientific quality and refining the proposal.

Guideline for a one-page research proposal:

The one-page research proposal must be submitted via email to <u>anmor@arlafoods.com</u>. Deadline for submission is 1st of June 2020. Maximum submission of 1 one-page per principal investigator. Feedback will be received 15th of June 2020. **Disclaimer:** *Submitting the one-page research proposal and aligning the application after the feedback is not a guarantee for funding. The feedback should be seen as a consultation and feedback at an early stage in the application process strengthening the further work with the project proposal.*

The one-page research proposal must contain:

- 1. Project title: As concise as possible.
- 2. Research area: In overall terms.

3. Project description and content: Hypotheses, brief description (relevant state-of-the-art and research questions to be answered) and summary of methodological approach. References and preliminary results attached as appendix.

- 4. Information on principal investigator and additional applicant(s): Name and University.
- 5. A suggested research collaboration between Aarhus University and University of Copenhagen.
- 6. A clear description on how the research brings new knowledge within the field.

Submission of applications:

The AFH call is a one-stage application process (with an optional one-page research proposal consultancy, as described above). Project activities in the applications could comprise proof of concept studies or additional activities to ongoing projects, where these specifically address the topics of interest of this call. Collaboration between AFH partnership members is important to utilize partners covering different aspects of health science, food/dairy science, sustainability research and analytical expertise. Finally, it is a prerequisite that the principal investigator is affiliated to one of the AFH partner universities. International partners are encouraged and will be considered in the evaluation process of applications. **The submission deadline for the application is the 16th of October 2020 at 16:00 CET.**

The submission deadline for the application is the 16th of October 2020 at 16:00 CET.

The application must be submitted via email to Anne Louise Mørkbak at <u>anmor@arlafoods.com</u> If you are experiencing any technical problems or your query is not answered in the information provided in the website, please contact Anne Louise Mørkbak at <u>anmor@arlafoods.com</u> or at mobile +45 41607119. Please read carefully the guidelines for the application before submitting your proposal.



Review process

The applications will be reviewed, in first instance, by the external, independent Scientific Advisory Board and ranked according to scientific quality and relevance.

Hereafter, the AFH Steering Committee conducts an internal review to assess if the application: i) is within the scope of the call, (ii) has a strategic fit (Arla and University perspective) (iii) has business relevance (Projects with a high science quality rating but low business relevance, or low strategic fit, will not be selected), iv) includes partnership (projects including three or more of the AFH partners will gain priority) (v) quality of communication plan. AFH Steering Committee approves final selection of projects to be funded for the call.

The Head of AFH communicates decision to the principal investigators for selected projects, including any requirement for amendments to the application before end of 2020.

Key timelines for the Arla Food for Health 2020 applications:

- 01/05/2020 Announcement of 2020 call for applications
- 01/06/2020 Last date to submit optional one-page research proposal
- 15/06/2020 Last date to receive feedback on optional the one-page research proposal
- 16/10/2020 Last date to submit application
- 31/12/2020 Decision on funding communicated
- 31/01/2021 Final project approval and proceed to contract (provisionary date)

4 Guidelines for applications

The application should not exceed 5 A4 pages, be written in English and include the following elements (in this order):

1) Project title - As concise as possible. Add project acronym.

2) Research area: which of three AFH research categories the project relates to.

3) The project's main objective (max 3 lines).

4) Project summary (max 20 lines).

5) Project duration - Expected start and end dates.

6) Estimate of the project's total budget and the amount AFH is applied for: attach a completed budget template to the application (new template available on website. Considering that AFH granting often is seenas seed money, please fill out other funding opportunities from public or private funds that will be or already are applied for to fully finance the final project.

7) Information on principal investigator and applicant(s):

i) Details of the principal investigator and project manager (name, title, email, phone, address).

ii) If the project, as recommended, has been discussed with Arla scientists, you are welcome to state their names. However, they are not regarded as applicants.

8) Bank details and accounting contact:

i) Bank - name and registration and account number.

ii) Accounting contact (name, address, phone, e-mail).

9) Project description (max 1 page):

i) The hypotheses of the project and a brief description of the relevant state-of-the-art. Concise and broken down into sub-goals.

ii) Project content - concise description of the project content, milestones, and requirements for equipment and research facilities.



10) Foreseen project outcome, including:

i) Why is it relevant for the dairy industry?

ii) Short description of the innovation aspects, innovation potential, scientific and commercial perspectives. What new knowledge will the proposed research add to existing knowledge.

iii) What difference can the project make to people's health?

11) Assessment of the risk of project failure and mitigating procedures.

12) Summary of experiments and work packages (max 1 page, preferably less).

13) Contribution to education - short description of the project's educational contributions.

14) Publication plan.

15) Dissemination plan. Shortly describe potential messages, target audiences, relevant platforms and channels to be used. Furthermore, where appropriate describe communication and interaction with wider policy and health service audiences in ways that will facilitate research uptake in decision-making processes and practices. Please contact your local communication expert for help and guidance^{*}.

16) Include main CVs in appendix (not included in the 5 pages). Please specify role in project and man months committed during the lifetime of the project:

i) A 2-page CV of the principal investigator (incl. project management experience)

ii) A 1-page CV from leading co-applicant(s) from (other) participating institutions

iii) A maximum of 5 CVs should be provided

17) Commitment from all participants in the project. There is no need for a letter of interest from Arla, as relevance criteria is part of the evaluation process.

* If AFH decides to fund the proposed project, the dissemination plan will be further developed. In this process the principal investigator should seek further guidance and support from the local communication experts of Aarhus University and University of Copenhagen.

5 Further Information

Interested applicants are welcome to consult AFH director Anne Louise Mørkbak regarding application topics, test products and business relevance on mail <u>anmor@arlafoods.com</u> or mobile 416077119. Already established contacts to Arla can also be used for the purpose.