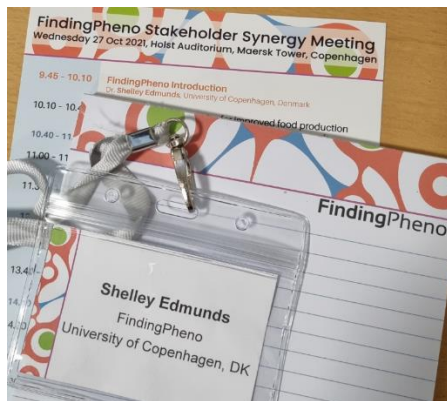October 21, 2021

Stakeholder Synergy Meeting

Updated: Jan 3, 2024

Our first external event!

Preparations are underway for our **first external meeting**, our first chance as a consortium to physically connect with other EU projects, researchers and companies working with big data and microbiome research. This is an important chance to facilitate knowledge sharing across the research community, bring new ideas to **FindingPheno**, and an opportunity for attendees to build relations and grow new collaborations.

Planning this event was fun, enabling me time to learn about various cool research going on, then reach out to interesting people and invite them to meet with us. We aimed to get together as many relevant people as possible for a day of presentations, discussions and brainstorming to see how our ideas and technologies can work together to make a difference.

I think it worked! We had a great list of attendees, with 53 people representing 16 publicly funded projects and 11 companies from European countries. In particular, we had eight speakers addressing challenges and opportunities in their projects and fields. In this post, I aim to share what I am looking forward to during this meeting.

Integration and application of multi-omics data

[HoloFood](#)**:** Also termed our "sister project", coordinated by the UCPH Center for Evolutionary Hologenomics and started in 2019. The focus is on measuring molecular interactions across holobionts (host animal and associated microbiota) [after dietary interventions in chickens or salmon](#) to develop better animal feed products. They are now generating results. I am excited about the status update including findings that give a strong case study of how hologenomics can be used to make food production more efficient and sustainable.

ELIXIR: The leading EU-wide infrastructure for big data analysis, provides services, computational platforms, research projects and subject-specific communities aimed at making the most of bioinformatics data generated in the EU. ELIXIR Food and Nutrition has been grappling with problems of how to manage, store, integrate and analyze data from omics studies, physiological and behavioral data, to improve food availability and nutrition. I want to hear their approach to this problem due to its close connection to **FindingPheno**.

PROMICON: a newly started research action, using similar technologies as **FindingPheno** like machine learning, systems biology, and bacterial ecology to study microbial communities, but focused on a different problem of how to optimize biotechnology applications like large-scale fermentation. I cannot wait to hear their take on how these technologies can be applied in their field, as it may trigger ideas of new ways to look at the problems we are interested in.

Better and more sustainable agriculture

ECOSTACK: focuses on multiple levels, from developing and optimizing new technologies for farm use to considering biodiversity and ecosystems around the farm, and assessing best ways to support farmers in the application of their findings. ECOSTACK has a work package looking at microbiome-based products to enhance plant protection and I look forward to hearing their views on how microbiomes can be used in agriculture given their deep understanding of the entire food production value chain.

EXCALIBUR: research focuses on interactions between the soil microbiome and plants for improved crop production. They are conducting field trials with strawberries, apples and tomatoes to test microbiome-based biofertilizers, and posted many photos on Twitter from the field and sample preparation. I think that soil has so much potential to improve crop production, trap excess carbon and protect the environment, so I am keen to hear more about their research and what they see as the main areas of impact for this type of technology.

ROOTPHENOBIOME: This Marie Skłodowska-Curie Fellowship project aims to understand how maize root microbiome can affect, and be affected by, the plant genome and environmental conditions. The microbal community associated with roots differs from the overall plant or soil in general and can have a strong influence on plant health or crop yield. This link between microbiome/host metabolism and phenotype is an aim of **FindingPheno**, but we are using different methodological approaches. But there are strong synergies between the projects and I am looking forward to hearing more about ROOTPHENOBIOME.

Industrial application of microbiome research

Cargill Animal Nutrition: is a large multi-national company working in food production and nutrition. Their Animal Nutrition Department develops and sells innovative animal feed or feed additives. Their research includes understanding interactions between microbiota and gut health of food production species, and I am interested to hear how this knowledge can be used in a real world setting – getting us out of the academic bubble.

Novozymes Human Health: are world leaders in biotech-produced enzymes, holding around 50% of the market, with a strong history of innovation and new product development in this

area. Their talk focuses on use of microbes and microbiomes in [human health applications](#), looking at unmet needs in the industry and future applications. While **FindingPheno** does not include human health applications it is the obvious next step for our technology, so I am excited to hear a commercial perspective in this area from a successful company.

So there you have it, the exciting speaker list we have assembled for our first event.

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