

Project Number: 952914

Project Acronym: FindingPheno

Project title: Unified computational solutions to disentangle biological interactions in multi-omics data

D8.1 Kick-Off Meeting Minutes

WP8 PROJECT MANAGEMENT

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DOCUMENT HISTORY

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1 Background

FindingPheno is a four year long collaborative research project with a consortium of eight organisations from five countries. This brings challenges with internal alignment and coordination of efforts between partners to achieve the project goals. Therefore, we place a high importance on internal communication, including regularly scheduled partner meetings, to mitigate these issues and ensure smooth running throughout the project period.

The Plenary Kick-Off Meeting held on 19 April was an important first step to opening the lines of communication between partners. This meeting was designed to bring together all participants in FindingPheno allowing us to get to know each other and the project, and to launch the project in a good way. The project was organised by University of Copenhagen (UCPH) Project Team and held virtually, i.e. on Zoom, due to the current coronavirus situation. It was attended by 23 participants covering all project partners, along with the EU Project Officer.

The objective of D8.1 is to document this Kick-Off Meeting, confirming the successful start to FindingPheno and highlight the next steps towards building on the enthusiasm and interest generated in this meeting.

2 Plenary Kick-Off Meeting Agenda

19th April 2021, 10.00 – 15.00 CEST (with 1 hr lunch break)

10.00 - 10.15 Introduction to the FindingPheno KOM – Shyam Gopalakrishnan
Project background, milestones, main aims

10.15 - 11.15 Consortium introduction (6 min/partner)

11.15 - 11.30 Holofoods and other data sources – Morten Limborg
Where does the data come from? What other opportunities are there?

11.30 - 11.40 Related projects – Antton Alberdi
Introduction to EHI and 3domics, potential for collaboration

11.40 - 12.00 Project coordination and KU support – Anne Oftebro-Svendsen
EU compliance rules and regulations

12.00 - 13.00 LUNCH BREAK

13.00 - 13.25 EU Project Officer intro – Angel Fuentes-Mateos
EU expectations and information

13.25 - 14.15 Small group discussions about project challenges – Shelley Edmunds

14.15 - 14.55 Small group discussions about project opportunities – Shelley Edmunds
For both sessions: we will discuss set questions in breakout rooms then present in plenum

14.55 - 15.00 Meeting close – Shyam Gopalakrishnan

3 Minutes

Introduction and welcome to all participants. Shyam gave some background to the project, what we aim to do, and upcoming milestones / deliverables / meetings etc we should be aware of.

Main purpose of FindingPheno

- There has been a lot of soft funding given to generating multi-omic data sets, eg HoloFood project
- **FindingPheno aims to make the most of this data**

- Move beyond pairwise associations and focus on integrations across data sets, incl. host-microbiome interactions
- Easy to say, hard to do!

FindingPheno key objectives:

- **Integration:** investigate host-host interactions where possible but mostly focus on host-microbiome interactions, attempt to move towards assigning causality rather than just associations, go beyond pairwise into network/holistic view
- **Data heterogeneity:** use spatial and temporal variation to see how the microbiome changes and how this affects phenotype, also increases robustness of our models
- **Incorporate past studies:** new studies often validate or refute past studies without really using them, we will incorporate knowledge from previous studies to refine our models

Project breakdown:

- WP 3,4,5: led by academic groups (CF, UTU, UCPH), expect lots of interaction between groups and WPs
- WP 2: led by EBI, data governance
- WP 6: led by CER, apply methods to public data sets, many have been identified, may add rhizome data sets
- WP7: led by Qiagen, apply to industrial applications
- WP 1,8: led by UCPH, project management and dissemination

Upcoming milestones:

- **Data management plan due Aug 31st 2021**
- Stakeholder Synergy Meeting (expected Q3 2021), focus on other publicly funded projects but can include industrial stakeholders, report due Oct 31st 2021

Upcoming deliverables:

- Dissemination plan is due May 31st, Shelley is working on it and **will ask for feedback in next few weeks**
- Training events, four expected in 1st half of project (M10, M15, M18), **begin planning process in May**

How to expand project footprint?

- Easy -> link with other EU funded projects
- Also, extend to locally funded projects (eg IFD funded in DK)
- Then consider other industries we should work with (Jan and Leif bring value here)

* **Action point:** meeting between Jan, Shyam and Shelley to kick-start the innovation process for FindingPheno

Meetings:

- Steering Committee Meetings 1x year
- Advisory board meetings linked to STC
- Smaller update meetings more often?

Team Introductions: each group leader gave an overview of their team for FindingPheno, including who will be involved, who they will hire, what their group focusses on and plans to contribute, and what they hope to get out of the project. A key theme that emerged is hiring new staff, with the majority of partners needing to or in the process of recruiting postdocs or PhD students for the project. It was also interesting to see the differences in approaches and ideas brought by each partner and that there is minimal overlap between groups. The partners introduced were:

University of Copenhagen (DK) – Shyam Gopalakrishnan

University of Turku (FI) – Leo Lahti

Centre for Ecological Research (HU) – István Scheurin

Chamalimaud Foundation (PT) – Gonzalo Polavieja

Chr. Hansen (DK) – Dorthe Sandvang

Qiagen Aarhus (DK) – Patrick Ettenhuber

HoloFood project: Morten Limborg gave an overview of the main “data donating” projects associated with FindingPheno.

- Hologenomics programme has been developed between Morten, Tom Gilbert and Antton Alberdi
- Aim is to tie everything together, host and microbiome, with main focus on interactions
- These projects have attracted >€15m in funding to generate data, but less concrete plans on how to integrate them to find the actual phenotype
- HoloFood project:
 - o includes UCPH, Chr Hansen and EMBL-EBI among others.
 - o gives ready access to pre-publication data plus deep knowledge of how it was generated
 - o Chicken – includes Chr Hansen products (pre- and probiotics)
 - o Salmon – focus on sustainable fish feed (seaweed as natural probiotic, blue mussels as protein source)
 - o Controlled trials with extensive sample collection and data generation, limited data analysis
- Other data sources are listed in the grant, add INTERACT project (Novo Nordisk Foundation funded), also new ones are regularly published
- EMBL-EBI aim to make an internal repository for all FindingPheno to access

Associated projects: Antton Alberdi presented two related projects situated at UCPH as potential opportunities for collaboration

- 3D'omics project:
 - o due to start Sept 2021, 13 partners, €10m, 4 years
 - o focus on spatial modelling of microbiome in animal epithelium
 - o pigs + chickens: laser microdissection of gut samples then reconstruct in 3D, focus on specific taxa rather than whole genome/metagenome
- Earth Hologenome Initiative:
 - o Umbrella covering multiple projects, focus on hologenomic data from wild organisms
 - o Aims incl. capacity building (ie training people), standardising collection methods, creating a sample biobank, building global partnerships
 - o Objective is >500 vertebrate paired genomes/metagenomes, should incl. temporal data, will incl. comparative evolution approaches

Financial and administrative overview: presented by Anne Oftebro-Svendsen, the Senior EU Liaison Officer responsible for FindingPheno at UCPH

- Included information about financial reporting, time sheet recording, cost eligibility, where to find information
- Reminder that period reporting is due in on the following dates: 31st August 2022, 28 February 2024, 28 February 2025.
- An internal financial reporting “dry run” will also be conducted in Q2 2022
- The ppt will be circulated to all partners with the meeting minutes so everyone has the information
- * **Action point:** meeting between Rob, Shyam and Shelley to plan how to charge for computation credits between partners

EU Project Management: presented by Angel M. Fuentes Mateos, the EU Project Officer for FindingPheno

- Included EU context and policy background for projects such as this one, focus on EU leadership in Industrial Biotechnology
- Encouragement to focus on how we can contribute to this policy area, synergise with other projects, and expand the project with follow-on or complementary funding etc

- Overview of responsibilities for deliverables, period reporting and financial reporting
- Reminder to use the EU flag and appropriate text in all project communications, eg:



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Small group discussions: All participants were assigned to one of four groups, with a mix of organisations represented within each group. Two discussion sessions were then led by Shelley Edmunds to talk about potential challenges and opportunities for the FindingPheno project. The aim was to generate new ideas, highlight issues that the Project Team can work on, build some excitement about what we can achieve and just get people talking to each other in a more informal way.

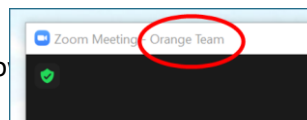
The instructions given for this session were as follows:

How this will work:

- Short introduction from me about what to discuss
- You will be **sent to breakout rooms** in zoom (4 rooms, 3-5 people/room, mixed across groups)
- Have a **nice group chat** about project challenges or opportunities, take notes in google doc
- After 15 minutes you will all be **returned to the main area**
- Each group **presents key points** from their discussion to all: 4 min x 5 groups: 20 mins
- Action points will be noted for follow up

Tips for the actual discussion:

- Your team name is in the top left corner of the window
- Take notes in the google doc, two slides per team
- Suggestion: assign someone to write and someone to present
- Don't overthink things, keep the notes short!
- Will be given 5 min warning before automatic return



Some key themes that emerged during the sessions were:

Problems:

- Internal communication between partners, how to keep everyone aligned and going the same way
- Access to data, integration of workflows, software etc
- Running software at scale
- Corona situation: loss of in person interactions (networking, creativity, relationship building), hiring delays

Needed from the project team:

- Central repository for materials (data yes, but also other materials)
- Regular and easily digestible info on what is required for deliverables etc
- Opportunities for informal interactions between partners (water cooler, donut talks, journal club)
- Physical kick-off meeting when we are allowed (probably Q3 2021)

What next?

- Start hiring
- Start communicating between partners
- Make data available

What cool things can we include, how can we expand?

- New maths ideas, new data types, e.g. spatial and temporal aspects, single cell, pathway focus
- Look at new collaborations or funding applications between partners (e.g. plant genomics, human health, methods development funding)
- Expand out to new subject areas, e.g. get big pharma interested, expand more into ecology
- Focus in to specific problems, e.g. in agriculture or aquaculture (can then build targeted funding proposals)
- Plan experimental work to validate our findings, expand to other animal models

Dream big for the future:

- Act as connector for existing platforms – become the industry standard
- Influence policy guidelines at industry-wide, governmental or cross-national levels
- Increase the use of publicly available data across the industry (new models, not new data)
- Real world impact via new products, e.g. find the world saving bacteria
- Follow up IA, business spinout

The meeting was then closed with some final words of encouragement from Shyam.

4 Meeting Summary and Follow Up

Overall the meeting was well received and all feedback was positive. Each session kept to time and there were no technical issues. The group leaders for each partner provided slides describing their teams and gave engaging and useful introductions to their organisation. In addition, all participants got actively involved during the discussion sessions coming up with really good feedback and ideas for the project going forward.

The most important next step identified was creating a shared platform for internal communication and knowledge sharing, including central file repository for outreach materials and deliverable development. This will be included as part of the FindingPheno website, so web development activities have been prioritised with first release planned for mid-May. Meanwhile, minutes from the KOM have been circulated to all participants and will be archived on the website intranet once it is launched.