

2.1.1. Annual highlight(s)

The Center for Evolutionary Hologenomics is pioneering a brand new, and thus unique, research discipline. As such, our first year has focussed principally on three areas. Firstly, building the team and research infrastructure that will enable us to undertake the research that underpins our vision. Secondly, we have been active in applying for additional funding to support the continued expansion of our team and research program. And thirdly we have commenced a suite of experiments and methodological development projects to provide us the computational tools with which to analyse our data.

With regards to the team, in addition to the talented group of PhD students, Postdoctoral researchers and support staff that form the Center's core, we are particularly pleased to be able to report that we have expanded our group of co-PIs, to include two additional female group leaders, Associate Professor Sandra Breum Andersen and Assistant Professor Ostaizka Aizpurua. Their hiring not only strengthens the Center's overall diversity, but brings exciting opportunities to expand our research in the medical and behavioural hologenomics contexts. Furthermore, we are delighted to be able to report that in addition to the DNRF funded staff, we have managed to attract a number of other Postdoctoral fellows, Phd students and MSc students to align their research interests towards our goals, thus adding to the cohort of researchers. This includes not only those who were already present at the host institute, but others who successfully applied for grants during 2020. These include two Marie Sklodowska-Curie Fellows, as well as Dr Jack Howe, who will be joining us from the University of Oxford to explore planarians as a hologenomic model system, thanks to a Carlsberg Foundation Reintegration Fellowship.

2020 also saw the awarding of several major grants to our co-PIs, including two EU funded Innovation Actions, 3D'omics (PI Alberdi) and FindingPheno (PI Gopalakrishnan), two Carlsberg Young Researcher Fellowships (PIs Alberdi and Moltke) and an ERANET-BlueBio project (PI Limborg). Together these awards will not only continue to expand our team, and allow the development and implementation of exciting new research tools, but ultimately open up new research areas, in which we will be translating our framework to both applied and medical questions.

And with regards to research, our team members have started an exciting range of projects involving both laboratory and wild systems, whose foci span everything from adaptive and conservation hologenomics, to behavioural hologenomics, to detailed investigations into how the host and its microbes interact. Our research is also not only based in Copenhagen, but global, thanks to collaborations starting as part of the Earth Hologenome Initiative (EHI), that aims to generate an open access reference dataset of paired genome-microbiome information from animals across the planet. Ultimately we believe this initiative, coupled to (i) a series of opinion and perspective articles that we have both recently published and are preparing for submission now, (ii) a first of its kind PhD course on hologenomics that we will launch in 2021, and (iii) a Symposium on Evolutionary Hologenomics that will be held once COVID allows it, will rapidly cement Denmark's place as the leader of the hologenomic movement.

