

Nomination of Line Hjort for the DDA-Funded Scientist Award

PhD and human-biologist, Line Hjort, has during the last 8 years performed a pioneer work within research of diabetes and pregnancy, fetal development and epigenetic mechanisms. During these years Line has gained solid experience in both study designs and planning, as well as data collection of large clinical studies, incl. a country-wide study of gestational diabetes, with more than 2400 children and mothers examined across Denmark. On the other side of data collection, Line also masters molecular biological laboratory skills, and has detailed expertise within epigenetic DNA analyses, in both blood and tissue samples. Especially, Line has obtained important results published in high-impact journals, showing that offspring of women with previous gestational diabetes have epigenetic changes in multiple genes, and that the daughters also have shortened telomeres, compared to children not exposed to maternal gestational diabetes. In this way, Lines research has contributed substantially to the understanding of why children of mothers with diabetes may develop diabetes themselves early in their adult lives.

Line has on her own initiative established an international collaboration with Prof. Richard Saffery the Murdoch Children's Research Institute, Melbourne, Australia, where she spent 8 month in 2014-15, and obtained expertise within whole-genome data analysis and bioinformatics, so that she, besides personally having performed all laboratory work during her PhD, also conducted the bioinformatic analyses. In 2016 Line also spent 1 month in the laboratory in Melbourne, to learn how to perform telomere length measurements.

Line has the ability to acquire knowledge of very different nature. These skills have been of great benefit to several departments at Rigshospitalet, as well as other universities, where she has assisted and collaborated with colleagues on epigenetic analyses. In addition, Line is collaborator on a major international research project in Korogwe, Tanzania, that focuses on anemia, malaria and diabetes in pregnancy, and she has been personally stationed in Tanzania to implement protocols. She is currently working on a larger application to be able to conduct follow-up studies of these Tanzanian children.

Through own fundraising from the DDA, Line has begun a 3-year Postdoc project in 2019, where she will continue her fruitful and excellent research within the area of epigenetic and gestational diabetes. Line has published several papers in high impact journals and presented her results at many international and national conferences, given DDA interviews for the social media and is an active presenter at LinkedIn and Twitter. Line has been very successful in receiving grants including 2.5 year PhD salary, 3 year post doc salary and 189.000 kr from several minor foundations. Both during her PhD and now during her postdoc Line's work fulfill the three major strategic areas for DDA including international collaboration and collaboration across sectors, mobility abroad and interdisciplinary translational research.

Line exhibits great commitment, research joy, willingness to cooperate, great flexibility and thoroughness in the daily life, driven by a clear great interest in her work. She always contributes with a good and contagious mood and a very positive attitude, which has been a great pleasure for all the departments where she has been employed.

With kind regards

Peter Damm, Professor, chief-physician,
Center for Pregnant women with Diabetes,
Dept. of Obstetrics,
Rigshospitalet



Louise Groth Grunnet, Postdoc,
Diabetes- and Bone-metabolic
Research Unit,
Dept. of Endocrinology, Rigshospitalet



Gothenburg, 29.9.2019.

Letter of nomination.

I am sincerely proud hereby to nominate **Line Hjort, PhD, MSc**, for the DDA-Funded Scientist Award 2019. I have known Line since 2010 when she started and subsequently finished her master thesis in my research group at Steno Diabetes Center, Copenhagen. The topic of Line's master thesis was DNA methylation changes of different candidate genes including PGC-1-alpha in muscle and fat from low birth weight subjects and controls exposed to fasting and overfeeding.

I was from I first met her sincerely impressed by Line's genuine interest in the topic, her positive energy, as well as the fact that she besides working in the in vitro laboratory also contributed extensively to the clinical integrative studies of LBW subjects and controls. Not surprisingly, Line defended her PhD thesis with perfection (grade 12).

Subsequently, I had the luck to recruit Line as a PhD student on an NIH/NICHD funded study of 2400 women with previous gestational diabetes (GDM) and their offspring as well as matched controls from the Danish National Birth Cohort. Here again Line was instrumental in multiple phases of the work from it was first planned and on including the clinical work and data collection. Subsequently, Line included her groundbreaking work on epigenetic changes of circulating cells from these GDM offspring and controls in her PhD thesis. These original data were subsequently published with Line as first author in JCI Insight in 2018. Needless to mention, Line defended her PhD thesis entitled: "Diabetes in pregnancy and epigenetic mechanisms" to perfection in March 2018 at the Faculty of Health and Medical Sciences, Copenhagen University. Furthermore, Line was the first author on a review paper of this subject published in Lancet Diabetes and Endocrinology in 2019. Line was awarded with a DDA post doc position in 2018.

As can be seen in Line's CV, she has been engaged in several lines of work beyond her own PhD thesis, and her publication list includes 7 first authorships, 14 co-authorships and 2 book chapters. Her current H-index is 7 and her work has been cited in total 156 times according to ORCID ID: <http://orcid.org/0000-0003-4673-4176>. Line has also been involved in several international collaborations including an ongoing collaboration with Prof. Richard Saffery Murdoch Children's Research institute, Melbourne, Australia. Line has participated in several national and international meetings where she between 2012 and 2019 has had no less than 45 presentations (posters or oral).

All-together, Line is a highly talented metabolic scientist with a very strong dedication to her field. She has already published very significant papers in highly prestigious journals including JCI Insight, Lancet Diabetes and Endocrinology, Diabetologia, Diabetes etc., and I have no doubt that Line will grow further soon to become a fully independent metabolic scientist. I warmly recommend Line for the 2019 DDA funded scientist award.

For further details conc. Line, please see uploaded CV and list of publications.

Sincerely Yours,

Allan Vaag, Professor (emeritus Chair, Endocrinology, Copenhagen University), VP, MD, PhD, DMSc.