UiO :

Department of Geosciences
University of Oslo

Date: 23 April 2021

Letter of Recommendation Dr. Stefanie Falk

Dear members of the selection committee,

I am glad to provide a letter of support for the application of Dr. Stefanie Falk for a FWF Lise-Meitner Fellowship.

Dr. Falk has been a postdoc fellow in our group since 2018. Before coming to us her work had been rooted in atmospheric chemistry – with recognized contributions to our understanding of ozone chemistry in the stratosphere and troposphere. In our group, she expanded her focus during recent years towards the coupling of the atmosphere with the biosphere, first the role of ozone dry deposition and next on the impact of ozone on vegetation. Although widely recognized as important sink for tropospheric ozone, and deteriorating for plant health, to-date online-coupled vegetation-climate interactions including ozone effects are not included in current earth system models. This missing representation of an important sink process causes substantial uncertainties in the future evolution of surface ozone burdens and thus changing health burdens, as well as in projections of climate effects and feedbacks.

In her proposed project **Ozone Damage Interference on Nutrient Allocation (ODINA)** Dr. Falk proposes to study, on one hand, the effect of uptake of ozone in plants, its impacts on the local and regional ozone burden for the recent past and following future scenarios over the 21st century and, on the other hand, climate-vegetation interactions in the same time frame. She proposes to develop the land surface model used in the Community Earth System Model (CESM) and the Norwegian Earth System Model (NorESM) by introducing an innovative atmospheric chemistry – vegetation – climate online-coupling. Dr. Falk's background is very well suited for this purpose, and she will be able to draw heavily on experiences gained during her three postdoc years in our group.

I can highly recommend Dr. Falk as recipient of a FWF Lise-Meitner Fellowship.

Sincerely,

Frode Stordal
Professor Emeritus
Department of Geosciences, University of Oslo