

## “Expression of Interest” for hosting Marie Skłodowska-Curie Postdoctoral Fellowships in Germany

Institutions interested in hosting postdoctoral fellows within the Marie Skłodowska-Curie Postdoctoral Fellowships programme should use this template. Host institutions should be located in Germany.

### 1. Valid for the following MSCA-PF Call<sup>1</sup>:

Please tick:

2021

2022

### 2. Interested host institution:

Name of EU liaison officer (EU-Referent/in), if applicable:

Linda Pialek / Scarlett Sett  
[euoffice@uv.uni-kiel.de](mailto:euoffice@uv.uni-kiel.de)

### 3. Institute/Department:

Research Group Medical Systems Biology  
Institute for Experimental Medicine  
Christian-Albrechts-University Kiel  
Website : <https://www.iem.uni-kiel.de/de/msb>

### 4. Contact person (name and e-mail address):

Christoph Kaleta  
[c.kaleta@iem.uni-kiel.de](mailto:c.kaleta@iem.uni-kiel.de)

### 5. Project idea/position (scientific requirements, topic, discipline):

Rough outline of idea/position:

The microbiome is increasingly been considered as a key modulator of host health and a potential driving factor of the aging process. Thus, transfer experiments of microbiota from young to aged hosts have demonstrated beneficial effects for the recipients in a wide range of medical conditions in animal model systems. However, due to the immense complexity of the microbiota and the myriad of potential interactions with the host, the specific mechanism through which the microbiome

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<sup>1</sup> MSCA Postdoctoral Fellowships are selected on the basis of annual calls for proposals. Forthcoming and open calls for proposals can be found on the [Funding & tender opportunities Portal](#) of the European Commission.

modulates aging in the host remain unclear. The aim of this project is to use approaches from constraint-based modeling on combined metabolic networks of microbiome and host to identify metabolic pathways connecting host and microbiota that influence the aging process. For this purpose, diverse types of OMICs data including microbiomics, transcriptomics, metabolomics and methylomics along with cognitive data from a well phenotyped mouse cohort as well as several human cohorts are available. Following identification of specific metabolic pathways through which the microbiome modulates aging processes in the host, hypotheses can be followed up with experimental and clinical partners in animal models as well as human cohorts.

Please tick:

- Life Sciences
- Natural Sciences
- Engineering Sciences
- Social Sciences and Humanities