

PhD Project on AI-Driven Cancer Prevention Using App-Collected Digital Health and Nutrition Data at Scale

supervised by
Prof. Dr. Carolin Schneider (TU Dresden)

Project description:

Cancer prevention increasingly requires the analysis of routinely collected data generated in everyday digital environments. This PhD project will develop large-scale, AI-driven approaches to integrate app-collected digital health, lifestyle and nutrition data with structured food and nutrition databases as well as local cancer incidence data. The aim is to identify modifiable dietary, behavioral and metabolic risk patterns relevant to cancer prevention and to develop scalable, interpretable and data-driven prevention models.

The project is based at TU Dresden and conducted with the German Cancer Research Center (DKFZ) Dresden.

Keywords

Cancer prevention, digital health, app-collected data, nutrition data, food databases, artificial intelligence, large-scale data analysis, risk prediction

Entry requirements

Master's degree or equivalent qualification in data science, bioinformatics, computer science, or a related field. Strong quantitative skills and experience with R and Python are expected. Experience with cohort data, app-based data, electronic health records, nutrition data or real-world data is desirable.

Location

TU Dresden, Dresden, Germany

Starting date

Flexible within 2026

Funding

Four years of funding (3+1, three years with the possibility to extend for one year)

How to apply

Please apply via the [HFA application portal](#).

The Hector RCD Awardees will arrange interviews with the most promising applicants.

Application Deadline

October 15, 2026

Enquiries

For further details about the project, please contact: carolinvictoria.schneider@dkfz-heidelberg.de

For questions related to the application process, please contact the Hector Fellow Academy Office:
application@hector-fellow-academy.de or www.hector-fellow-academy.de