

Project abstract

Name of DKFZ research division/group:	Computational and Molecular Prevention, C220
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Group homepage: Please visit our website for further information on our research and recent publications.	https://www.dkfz.de/en/computational-and-molecular-prevention

PROJECT PROPOSAL

Research into women's health and aging is profoundly underrepresented, despite its critical importance for lifelong wellbeing and cancer prevention. The Computational and Molecular Prevention Group places women's biology at the center of cutting-edge, interdisciplinary research.

Our group combines a strong focus on women's health with expertise in data science, AI, and genomics, spanning discovery to early translation. Current projects include the use of menstrual blood as a non-invasive resource to study healthy aging and to develop diagnostic approaches for premalignant conditions such as endometriosis. We are also applying single-cell and spatial transcriptomics to understand premalignant lesions in the fallopian tubes, and developing AI-based tools to annotate ovarian features from pathology images, with the goal of improving early detection and biological insight.

Clinically trained researchers joining the group will have access to outstanding computational support, including dedicated expertise in data science and AI, robust research infrastructure, and close collaboration with computational scientists. This environment is designed to allow clinicians to realize ambitious research ideas without needing to build computational capacity from scratch, and to translate clinical questions into scalable, data-driven studies.

We are particularly interested in hearing from clinical candidates who are motivated to co-develop innovative projects in healthy aging, understanding of early carcinogenesis, and/or prevention of cancer development, with a specific focus on women's organs.



FROM BEDSIDE TO BENCH
AND BACK

DKFZ Clinician Scientist Program
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If you are driven by the opportunity to address fundamental gaps in women's health research, work across disciplines, and pursue prevention-focused science in a highly supportive environment, we would be very interested in hearing from you.



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