CeMM International Postdoc Program (Vienna, Austria) Pre-ERC Postdoc Program (m/f/d)

Apply now

We are recruiting a group of **postdocs** who are eager to pursue ground-breaking biomedical research, and we will help them to establish themselves as **future scientific leaders**. This postdoc program is designed to prepare postdoctoral researchers for a successful ERC Starting Grant application or equivalent and for an independent research career in top research organizations in Europe and around the world.

The postdoc program is based at the **CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences in Vienna**, one of Europe's leading centres for basic biomedical research – with clinical translation in mind. Our partners are the Medical University of Vienna, the St. Anna Children's Cancer Research Institute (St. Anna CCRI) and AITHYRA. Selected candidates will join one of CeMM's or St. Anna CCRI's research groups for 3 to 6 years, addressing ambitious research questions in areas such as cancer, immunology, chemical biology, epigenetics, metabolism, genomic medicine, and aging research. Research projects will focus on medically relevant problems, including disease mechanisms, modern therapeutics, and diagnostic strategies. On top of this, postdocs will receive extensive career development and leadership training from the entire CeMM and St. Anna CCRI Faculty, as well as additional experts, in a highly collaborative and supportive environment.

What we offer:

- A unique blend of a frontier research environment at top level with a strong medical and translational focus through the hospital setting and the connections to biotech and pharma.
- An international group of highly collaborative colleagues that will help you achieve your scientific and career goals.
- Top-notch environment with the ideas, projects, resources, infrastructure, collaborations, and mindset for ground-breaking research.
- Excellent track record of past postdocs who have become internationally successful principal investigators, professors, and entrepreneurs.
- Strong focus on disease biology and translational research: cancer, metabolic disorders, inflammation/infection, aging, drug discovery.
- Interdisciplinary projects connecting biology with medicine, experiments with computation, and discovery with translation.
- Unique opportunity to engage in close interactions with physicians and clinical researchers at the Medical University of Vienna and St. Anna Children's Hospital on one of Europe's largest medical campuses.

- Opportunities to collaborate with industry (biotech/pharma) and to get involved in academic start-up/spin-off companies.
- Training program in project management, scientific writing, visual communication, entrepreneurship, leadership, and data science.
- Special training for writing successful ERC Starting Grants as a 'ticket' to an outstanding academic career.
- Being part of a thriving academic and social community in Vienna, one of the cities with the best quality of life in the world.
- A competitive postdoc salary of EUR 5,014.30 gross monthly (following the recommendations of FWF), paid 14 times yearly.
- Full insurance (health, accident, pension) and a one-off payment for moving from abroad.
- CeMM's and St. Anna CCRI's HR departments and administratives team offer support with relocation, visa applications, onboarding, family support, etc.

Whom we are looking for:

- Candidates who want to pursue innovative biomedical research and substantially advance their scientific career.
- Candidates with international professional experience and enhanced potential to receive an ERC Starting Grant in the future.
- Open to both PhD (natural sciences) and MD (medical sciences) holders.
- From a variety of academic backgrounds: molecular biology, biomedical research, bioinformatics, biochemistry, bioengineering, etc.
- With the motivation, skills, experiences, and initial achievements (subject to academic age) to qualify for a competitive postdoc program.
- Required are scientific quality and originality, as well as a collaborative and interdisciplinary mindset.

Potential Projects

We are open to ideas that fit into the broader scope and mission of the CeMM Research Center for Molecular Medicine and the St. Anna CCRI, and expressions of interest in the research of all groups, but concrete projects and groups offering positions are:

- **AI-powered research agents for bioinformatics and bioengineering (Bock Lab, CeMM/MedUni Vienna)** *Building on our CellWhisperer method for chat-based exploration of single-cell data (Schaefer 2025 Nature Biotechnology), we develop agentic AI and "virtual cell" models in the context of the Human Cell Atlasand the European Lab for Learning & Intelligent Systems, powered by large-scale single-cell, spatial, and CRISPR perturbation profiling.*
- **Tissue immunology, immunotherapy, cell engineering, and/or synthetic biology (Bock Lab, CeMM/MedUni Vienna).** *We develop and apply innovative technologies for analyzing immune memory (Krausgruber 2020 Nature), for high-content CRISPR screening (Bock 2022 Nature Reviews), and CAR T cell engineering (Datlinger 2025 Nature). As part of a newly funded ERC Advanced Grant, we will engineer smart CAR T therapeutics for solid tumors.*
- **Condensates, Chromatin and Translational Control in Pediatric Cancer (Grebien Lab, CeMM/St. Anna CCRI).** *We develop quantitative and functional approaches to map how leukemia-driving oncoproteins act in the context of phase-separated biomolecular condensates and how these structures regulate epigenetic states and cancer-associated gene expression (Terlecki-Zaniewicz et al., Nat Struct Mol Biol*

2021, *Troester et al, Nat Commun 2025*, *Kirkiz et al, Cell Rep 2025*).*We also investigate how RNA- and translation-associated processes regulate the development, maintenance and drug response in childhood cancer (Kodali et al, Nat Cell Biol 2024).*

- **Multiscale tissue remodeling during aging (Rendeiro lab, CeMM/LBI NetMed):** *This ERC-funded project builds on LazySlide (et al Nature Methods), our scalable software foundation, and our deep learning framework for age prediction (Abila et al., Nature Medicine, in press) to engineer a body-scale machine learning foundation model of human tissue. By learning universal representations of cellular architecture across organ systems, this computational platform will map structural remodeling during aging and simulate the impact of therapeutic interventions against decline. https://rendeiro.group/*
- **Pediatric Leukemia Biology (Seruggia lab, CeMM/St. Anna CCRI):** *We investigate the role of chromatin-modifying complexes in pediatric leukemia (see Batty et al. 2026 Nature Commun; Kutschat et al. 2026 Nucleic Acids Res) to identify disease mechanisms and novel vulnerabilities. We are also interested in how DNA regulatory sequences such as enhancers guide the differentiation of blood cells (see Montano et al. Nucleic Acids Res 2026) and have developed tools to dissect their regulatory logic at high resolution (see Becerra et al. Nature Commun 2026). We offer projects in these two areas of interest.*
- **The integrated computational transportome (Superti-Furga lab, CeMM/the Cori):** *This project will use AI-empowered integration and modeling of RESOLUTE data (https://re-solute.eu/) together with metabolic, structural, genetic and clinical datasets to generate new insights into transporter biology: how cells regulate access to the molecules of life, and how this regulation can be exploited for drug discovery. The successful candidate will develop computational frameworks that connect transporter function, regulation, cellular metabolism, disease mechanisms and therapeutic opportunities, working at the new Carl and Gerty Cori Institute in Graz in close partnership with CeMM and Aithyra in Vienna.*
- **PIDDosome in aging-related diseases (Villunger lab, CeMM/MedUni Innsbruck):** *The Villunger lab investigates the role of the PIDDosome in aging-related diseases combining preclinical models of aging with advanced cell biology and drug discovery. We are looking for a highly motivated scientist with a strong background in cell biology/advanced microscopy to visualize the PIDDosome in space and time, or a scientist with experience in analyzing genetic models of aging and genome editing/screening, to conduct chronological aging studies in GEMMs and assess pathology phenotypes over time, also employing digital pathology tools.*
- **Mechanobiology of pediatric sarcoma initiation (Tomazou lab, St. Anna CCRI):** *Our preliminary data establish neuromuscular organoids as a tractable human model for studying pediatric sarcoma from tumor initiation through malignant transformation. Using this platform together with single-cell multi-omics, functional perturbations, and computational genomics, we investigate how mechanical forces regulate chromatin, gene expression, and oncogenic cell fate decisions during pediatric cancer development.*
- **Ribosome-mediated post-transcriptional regulation in pediatric solid tumors (Tomazou lab, St. Anna CCRI).** *We investigate how ribosome biogenesis, nucleoli structure, and translational control regulate cell plasticity and therapeutic response in pediatric solid tumors. By integrating quantitative proteomics, ribosome profiling, structural biology, CRISPR perturbation screens, and single-cell multi-omics, we aim to define principles of ribosome-mediated post-transcriptional regulation and identify unexplored therapeutic vulnerabilities.*
- **Therapy resistance in pediatric cancer (Taschner-Mandl lab, St. Anna CCRI):** *Grounded in patient-derived samples, we build and apply complex tissue models to decipher the mechanisms of tumor adaptation and therapy resistance in primary tumors and metastases - the leading cause of cancer-*

related death in children (Fetahu et al., Nature Communications, 2023). Through integration with local and international precision medicine platforms, we aim to identify effective, personalized therapeutic strategies for children with cancer.

- **Gene regulation at neuroblastoma initiation and drug response (Kameneva lab, St. Anna CCRI).** *We engineer stem cell models, apply morphogenic screens, and perform cell-type specific mutagenesis to precisely target genetic mutations associated with pediatric solid tumors (neuroblastoma). We use putative initiation cell types to model tumor onset, while the drug screen helps to reveal sensitive and resistant tumor cell types. Powered by single-cell omics, we aim to uncover genetic regulation of oncogenic competence and drug sensitivity. This project develops machine learning models (sequence-to-function, cell state model, etc) to predict gene regulatory and cell state changes under genetic and pharmacological perturbations.*

The Institutes

CeMM is an international research institute of the Austrian Academy of Sciences and a founding member of EU-LIFE. The mission of CeMM, the Research Center for Molecular Medicine of the Austrian Academy of Sciences, is to achieve maximum scientific innovation in molecular medicine to improve healthcare. At CeMM, an international and creative team of scientists and medical doctors pursues free-minded basic life science research in a large and vibrant hospital environment of outstanding medical tradition and practice. CeMM's research is based on post-genomic technologies and focuses on societally important diseases, such as immune disorders and infections, cancer, and metabolic disorders. An additional focus lies on ageing research. CeMM operates in a unique mode of super-cooperation, connecting biology with medicine, experiments with computation, discovery with translation, and science with society and the arts. CeMM discovers and develops technologies to explore human biology with the purpose of defeating disease at its roots. Because Science is our Medicine! CeMM trains a modern blend of biomedical scientists and is located on the campus of the General Hospital and the Medical University of Vienna. More than 150 people from 49 nationalities are working at CeMM. CeMM promotes equal opportunity and harbours a mix of different talents, backgrounds, competencies, and interests. cemm.at

St. Anna CCRI is a leading pediatric oncology research institute in Europe. For nearly 40 years, our mission has been to advance research in childhood and adolescent cancer and to translate discoveries into innovative diagnostics, targeted therapies, and precision medicine. Our international team of researchers and physician scientists conducts basic, translational, and clinical research in close collaboration with St. Anna Children's Hospital. As part of a global network of research consortia and clinical trial groups, we connect laboratory discoveries with clinical applications to improve outcomes for young patients. More than 150 researchers from over 35 countries work together in an interdisciplinary environment, leveraging advanced technologies and offering strong opportunities for scientific and professional growth. St. Anna CCRI is dedicated to equal opportunity and to fostering an inclusive, respectful workplace. Work where it really matters and contribute to research that transforms the future of pediatric cancer care. Science that makes a difference http://www.ccri.at

Eligibility Criteria:

- You must hold a PhD (or will have been awarded your PhD by the time of starting the Pre-ERC Postdoc Program) and your PhD defense date must be no earlier than 2024.
- You must have at least one first-author publication published by the time of starting the Postdoc.

Application

Please apply online at https://cemm.onlyfy.jobs/job/roa0wi8n with 1) a cover letter including a short summary of research interests and mentioning which research group(s) at CeMM and St. Anna CCRI you would be potentially interested in joining, 2) curriculum vitae (CV), 3) academic transcripts, 4) contact details of three referees and 5) candidates will be asked to record a short video answer explaining their motivation to join the CeMM Pre-ERC Postdoc Program.

Applications received by 31 August 2026, 11:59 pm CET will be considered.

Selection Process:

Shortlisted candidates will be invited to participate in online panel interviews with CeMM and St. Anna CCRI Faculty members, which will take place in October 2026. At the end of the selection process, candidates will be asked to submit their preference regarding research groups they would like to work with, which may be identical or different from the original choice indicated in the cover letter.

Information session

At 10:00 am and 5:00 pm CET on 18 August 2026, we will host an online information event where you will be able to find out more about doing a postdoc at CeMM and St. Anna CCRI and applying to the program as well as have the chance to meet and talk directly with current pre-ERC program postdocs. To take part in this event, please sign-up here Postdoc Open Day - CeMM/St. Anna CCRI or visit the postdoc program page of the CeMM website.

Additional information

City	**Vienna**
Position type	**Full-time employee**
Start of work	**01.02.2027**

Responsible

Memo Mokhles

Apply now