Senior Biomedical Data Scientist (academic position with tenure-track option)

We are recruiting a Senior Biomedical Data Scientist to join the research group led by Christoph Bock at the CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences and at the Institute of Artificial Intelligence of the Medical University of Vienna. The successful candidate will broadly contribute to the group's research, analyze large datasets, support and co-mentor students / postdocs, contribute to bioinformatic methods development, and work with Christoph Bock on the initiation and management of projects, grants, and courses/lectures in bioinformatics, machine learning, and biomedicine, with the perspective of developing of new therapies for cancer and immune diseases.

The Candidate

We are looking for candidates who want to contribute to cutting-edge research, with a strong commitment to scientific excellence and collaboration, and outside the constraints of a classical PhD -> Postdoc -> PI career. The successful candidate will become a key member of a large research group that combines computational methods with high-throughput biology/biomedicine. While the initial recruitment will be on a fixed-term contract, a tenure-track option with promotion to a senior scientist position within the research group is available. The ideal candidate would have a high level of bioinformatics expertise, research experience, scientific creativity, and leadership skills that would easily qualify them for an independent academic career – but may for various reasons prefer to work as part of an academic team rather than as an independent group leader. A typical background would be a PhD in bioinformatics, quantitative biology, machine learning / artificial intelligence, data science, or a related field, ideally with prior exposure to high-throughput biology, single-cell or spatial datasets, or biomedical research. We are open to early-stage candidates who have recently completed their PhD or will do so within the next year – but also to candidates who have already collected initial postdoctoral research experience and are ready for the next challenge. The position includes ample opportunities for advancing a research career, developing academic leadership skills, engaging in international collaborations, and contributing to the advancement of medicine through computational research. The university provides an excellent employee benefits package. The expected starting salary is EUR 60,000 to EUR 65,000 per year (gross), with a scheduled raise when fulfilling the institutional criteria for the tenure-track option.

The Research Group (https://bocklab.org)

We seek to advance biomedicine with technology-driven research, combining functional genomics, bioinformatics, and machine learning with a focus on understanding epigenetic cell states and contributing to cancer and immunity. We are internationally well-connected and strongly committed to the career development of all group members. PhD students and postdocs in our research group have won prestigious fellowships and prizes; three out of three PhD students and five out of six postdocs who graduated from our group have already obtained principal investigator positions and started their own research groups at universities / research institutes in Austria and abroad. Main areas of research include:

• *Computational biology.* Bioinformatic methods are essential for data-driven biomedical research. We develop algorithms and software for large-scale data analysis, and we pursue clinical collaborations to establish medical impact.

• *Single-cell genomics.* Many diseases involve deregulated epigenetic cell states. As members of the Human Cell Atlas, we use single-cell sequencing and organoids to dissect the gene-regulatory foundations of cancer and immunity.

• High-throughput biotechnology. Groundbreaking discoveries are often driven by technology. We develop and apply new technologies in areas such as single-cell sequencing, CRISPR screens, epigenome editing, and synthetic biology.

• Machine learning. Huge datasets pose new analytical challenges. As members of the European Laboratory for Learning and Intelligent Systems, we develop methods for interpretable deep learning and artificial intelligence in biology.

• Immune cell engineering. CAR T cells have shown dramatic efficacy for blood cancers and may spearhead a broader shift toward personalized, cell-based therapies. We use high-throughput technology to design synthetic immune cells.

The Principal Investigator (https://scholar.google.com/citations?user=9qSsTcIAAAAJ)

Christoph Bock is a Principal Investigator at the CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences and Professor of [Bio]Medical Informatics at the Medical University of Vienna. He is also the scientific coordinator of the Biomedical Sequencing Facility at CeMM, member of the Human Cell Atlas Organizing Committee, fellow of the European Lab for Learning and Intelligent Systems (ELLIS), and co-founder of a Vienna-based start-up company (Myllia Biotechnology). He has received major research awards, including an ERC Starting Grant (2016-2021), an ERC Consolidator Grant (2021-2026), the Otto Hahn Medal of the Max Planck Society (2009), the Overton Prize of the International Society for Computational Biology (2017), and the Erwin Schrödinger Prize of the Austrian Academy of Sciences (2022).

The Host Institutions (https://www.meduniwien.ac.at/web/en/ & https://www.cemm.at/research)

The *Medical University of Vienna* is Europe's largest medical school and one of the oldest in the world. It was founded in 1365 as the medical faculty of the University of Vienna, and it has operated as an autonomous university since 2004. Within the university's data science department, the Institute of Artificial Intelligence focuses on machine learning / artificial intelligence in for biomedical research and clinical applications. The *CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences* is one of Europe's leading biomedical research institutes. Over the last years, CeMM researchers published >10 papers in Nature/Cell/Science/NEJM and >40 papers in Nature/Science/Cell sister journals, with a team of ~150 scientists. Research at CeMM is exceptionally collaborative and has strong focus on medical impact, based on a molecular understanding of cancer and immune diseases. A study by "The Scientist" put CeMM among the top-5 best places to work in academia worldwide. Vienna is frequently ranked the world's best city to live. It is a United Nations city with a large English-speaking community.

Please send your application to sec-ai@meduniwien.ac.at. The application e-mail should include a cover letter, CV, and academic transcripts, ideally combined into a single PDF document. All applications received by 5 November 2023 will be considered. Start dates are very flexible.