Sebastian Schönherr

Curriculum vitae

About me

Name	Sebastian Schönherr
Title	Univ.-Prof. Dr.techn.
Date of birth	March 10, 1982
Current Position	Professor of Digital and Computational Genomics at the Institute of Genetic Epidemiology, Medical University of Innsbruck, Austria
Contact	sebastian.schoenherr@i-med.ac.at
Last Updated	November 14, 2024

Scientific Impact

Publications	98 articles in journals and proceedings (13 as first or corresponding, 24 as collaborator); 2 book chapters
Impact-Factor	1,456
H-Index	34 [based on Google Scholar, 14.11.24]
Citations	17,051 [based on Google Scholar, 14.11.24]
Research Focus	Computational Genomics, Cardiovascular Diseases, Lipoprotein(a),VNTR Genetics, mitochondrial DNA, Genotype Imputation, Complex Gene Regions, Cloud Computing

Education

2010 – 2014 **PhD in Computer Science (Databases and Information Systems)**, *University of Innsbruck*, in cooperation with the Medical University Innsbruck (Division of Genetic Epidemiology).

2006 – 2008 **MSc in Computer Science (Databases and Information Systems)**, *University of Innsbruck & University of Copenhagen*.

2001 – 2006 **BSc in Computer Science**, *University of Innsbruck, Austria*.

Professional experience

Since October 2024 **Deputy Director**, *Institute of Genetic Epidemiology, Medical University of Innsbruck*.

Since 2023 **Professor of Digital and Computational Genomics**, *Institute of Genetic Epidemiology, Medical University of Innsbruck*.

2018 – 2023 **Senior Scientist (Permanent Position)**, *Institute of Genetic Epidemiology, Medical University of Innsbruck*.

2014 – 2018 **Research Assistant (Postdoc)**, *Division of Genetic Epidemiology, Medical University of Innsbruck*.

2010 – 2014 **Project Member**, *Division of Genetic Epidemiology, Medical University of Innsbruck*.

2012 **Research Assistant (Predoc)**, *Computer Science Institute, University of Innsbruck*.

2008 – 2010 **Research Assistant**, *Computer Science Institute, University of Innsbruck*.

Awards

2017 **Science Prize from the Austrian Society of Human Genetics (OEGH)**.

Grants

2019 – 2022 **Michigan Imputation Server**, NIH Sub-Grant (107,276 USD), PI.

2018 – 2024 **Askimed Project**, Software to develop Electronic Questionnaires (560,000 EUR), Co-PI together with Lukas Forer.

2013 **Amazon Web Services (AWS) in Education Research Grant**, *Cloud Computing Grant*.

Mai 2012 **Bioinformatics Open Source Conference (BOSC)**, *Student Travel Award*, Boston, USA.

2012 - 2014 **Aktion D. Swarovski**, *Research Funding*.

2010 – 2012 **PhD Scholarship**, *University of Innsbruck*.

2010 **Amazon Web Services (AWS) in Education Research Grant**, *Cloud Computing Grant*.

Teaching

2023-2024 **Life Science Praktikum 2 - Next Generation Sequencing: Labor und Bioinformatik**, Practical Medical University of Innsbruck.

2023-2024 **Open Lab Days**, Live Sequencing with Oxford Nanopore.

2023-2024 **LifeScience - Next Generation Sequencing (Wahlfach)**, Lecture + Tutorial (VU) - Medical University of Innsbruck.

2023-2024 **Regulationen der Körperfunktionen in Gesundheit und Krankheit: Biochemie II**, Lecture + Tutorial (VU) - Medical University of Innsbruck.

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2018 – 2024 **Next generation sequencing and nanopore sequencing: From data processing to interpretation**, Lecture + Tutorial (VU) - Medical University of Innsbruck.

2020 – 2024 **Biostatistics I**, Masters Studies Public Health, UMIT.

2017 – 2024 **Statistics Molecular Medicine**, Lecture + Tutorial (VU) - Medical University of Innsbruck.

2016 – 2024 **Statistics for Medical Students**, Tutorial - Medical University of Innsbruck.

2016 – 2022 **Bausteine des Lebens**, Tutorial - Medical University of Innsbruck.

WS 2015 **Information Mining I; CRM und Data/Cotent/Web/Social Mining I**, Lecture + Tutorial - University of Applied Sciences FH Kufstein.

WS 2014/15 **CRM and Information Mining II; CRM und Data/Cotent/Web/Social Mining II**, Lecture + Tutorial - University of Applied Sciences FH Kufstein.

SS 2014 **CRM and Information Mining I; CRM und Data/Cotent/Web/Social Mining I**, *NoSQL Database models*, Lecture + Tutorial - University of Applied Sciences FH Kufstein.

WS 2013/14 **Introduction to Modelling**, Tutorial Business Informatics - University of Innsbruck.

SS 2012 **Architecture and Implementation of a Database System**, *Implementation of a relational database*, Lecture and Tutorial - University of Innsbruck.

SS 2012 **New Database Models**, *NoSQL Database models*, Lecture - University of Innsbruck .

Past and current collaborations (excludes consortia work)

Eurac Research Bozen/Bolzano (Dr. Christian Fuchsberger)
University of Michigan (Prof. Michael Boehnke, Prof. Goncalo Abecasis)
Johns Hopkins University (Dr. Enis Afgan)
University of Basel (Prof. Nicole Probst)
CharitÃĬ Berlin (Prof. Kai-Uwe Eckardt)
University of Freiburg (Prof. Anna Koettgen)
University of Innsbruck (Prof. Guenther Specht)
University of Zagreb (Dr. Davor Davidovic)

Consortia activities

German Chronic Kidney Diseases Study (GCKD)
Non-coding RNAs for personalised pain medicine (ncRNAPain)
nonHFE-Registry Consortium
ApoA-IV-GWAS Consortium
Afamin-GWAS-Consortium
Lp(a)-GWAS-Consortium
Shieldvacc-2 Study Group
Hevacc Study Group
The Haplotype Reference Consortium (HRC)

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NHLBI Trans-Omics for Precision Medicine (TOPMed)

Genome Aggregation Database Consortium (gnomAD)

The Genome Asia 100K project

HEVACC Study-Group

Software Engineering Projects

Askimed - Askimed is the next-generation eCRF system designed for medical studies in the cloud. https://www.askimed.com

Michigan Imputation Server - Free genotype phasing and imputation service. https://imputationserver.sph.umich.edu

nf-gwas - A Nextflow pipeline for GWAS analysis. https://github.com/genepi/nf-gwas

mtDNA Server - Free service for the analysis of human mitochondrial DNA data. https://mtdna-server.uibk.ac.at

Haplogrep - Free service for mtDNA haplogroup classification for NGS data. https://github.com/genepi/haplogrep3

Haplocheck - Free service for contamination detection for NGS data. https://github.com/genepi/haplocheck

Cloudgene - Open source framework to improve the usability of MapReduce programs and the reproducibility of workflows. https://github.com/genepi/cloudgene

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