Sina Rüeger

Data Analyst

Education

— **PhD in Life Sciences** *in 2018*
Supervision by Prof. Zoltán Kutalik, Statistical Genetics Group at the Lausanne University Hospital.
Thesis: *Integrative statistical analysis of -omics and genome-wide association studies data.*

- Improvement of summary statistics imputation for application in more realistic scenarios and helping in building an easy to use software.
- Identification of genetic risk factors in different disease areas using GWAS methodology.
- Validation of gene expression-trait associations by applying text processing to a drugbank database, extracting drug target information and matching the results with gene expression-trait associations.

— **Master of Science in Engineering** *in 2011*
Zurich University of Applied Sciences, Winterthur, average mark: 86%.
Development of a statistical model to predict stages of Parkinson's disease from brain perfusion data, leading to a better understanding of disease progression. New Zealand Brain Institute, Christchurch, NZ.

— **Engineering degree in Data Analysis & Process Design** *in 2008*
Zurich University of Applied Sciences, Winterthur, average mark: 82%.

Experience

— **Fellay Lab**, EPFL
Postdoc: since Sept 2018
Analysis of human genomic data in the context of infectious diseases.

— **Division of Biostatistics**, University of Zurich
Biostatistician: Feb 2012 - Mar 2013

- Provided statistical consulting for medical staff and students.
- Analysed medical data for over eight research groups.

— **Institute of Data Analysis & Process Design**, ZHAW
Research Assistant: Mar 2009 - Jan 2012

- Provided statistical data analysis for various in-house projects.
- Built an application to automate cluster analysis on consumer testing data.
- Predicted vehicle type using sensor data and random forests.

Publications

See full list here

— Sina Rüeger et al. (2015) *Impact of common risk factors of fibrosis progression in chronic hepatitis C*. Gut.

— Sina Rüeger et al. (2017) *Improved imputation of summary statistics for realistic settings.* BioRxiv.

— Sina Rüeger et al. (2018) *Evaluation and application of summary statistic imputation to discover new height-associated loci.* PLOS Genetics.

Contact

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Skills

Statistical data analysis
Visualising data
R programming — *Used daily since 10 years*
Git
\cventry{Sep-2018 --
Knitr/RMarkdown
Genomics tools
High performance computing
Presentation & Communication
Adobe Illustrator

German — native speaker
English — fluent
French — good command

Awards & Activities

Awards for best student presentation at conferences (ESHG, EMGM, ePerMed).

Founding member and co-organiser of R-Ladies Lausanne.