

# Sina Rüeger

## Education

- **PhD candidate in Life Sciences (Spring 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 and Process Design in 2008**  
Zurich University of Applied Sciences, Winterthur, average mark: 82%.

## Experience

- **Statistical Genetics Group, University of Lausanne** Lausanne  
**Internship** Feb 2013 - Sep 2013  
Analysed exome data from CoLaus, leading to an improved awareness of the analytical limitations of rare variants.
- **Division of Biostatistics, University of Zurich** 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** Winterthur  
**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](#)

- [Improved imputation of summary statistics for realistic settings.](#)  
Sina Rüeger et al. (2017) >> under revision
- [Evaluation and application of summary statistic imputation to discover new height-associated loci.](#) Sina Rüeger et al. (2017) >> under revision
- [Impact of common risk factors of fibrosis progression in chronic hepatitis C.](#)  
Sina Rüeger et al. (2015)

## Contact

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## Skills

Statistical data analysis

Visualising data

R programming

Used daily  
since 10 years

Git

Knitr/RMarkdown

Genomics tools

Unix/Linux

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](#).