

Christina Schmidt



Postdoc – Saez-Rodriguez Lab – Heidelberg University Hospital

Role in LiSyM-Cancer

- Collaboration within the C-TIP-HCC project
- Development and application of knowledge-based biological databases and networks for the mechanistic interpretation of multi-omics data
- Development of mechanistic models for integrating phosphoproteomic, transcriptomic, and metabolomic data with biological networks

Expertise

- Integration and functional analysis of multi-omics data, particularly transcriptomics, proteomics, and metabolomics
- Knowledge-driven systems biology and the development of biological knowledge resources to support computer-aided data analysis
- Development and application of mechanistic and network-based models for investigating molecular processes
- Focus on metabolic reprogramming and metabolic regulatory processes
- Development of open-source bioinformatics tools for the analysis and interpretation of multi-omics data

Degrees

- 2017–2021, Doctorate (PhD) in Medical Sciences, University of Cambridge, United Kingdom
- 2014–2017, Master of Science (M.Sc.) in Biochemistry, Julius Maximilian University of Würzburg, Germany
- 2014–2015, Erasmus exchange during the Master's program in Biochemistry, University of Oulu, Finland
- 2011–2014, Bachelor of Science (B.Sc.) in Biochemistry, Julius Maximilian University of Würzburg, Germany

Professional Experience

- Since 2023, postdoctoral researcher in Julio Saez-Rodriguez's research group, Heidelberg University, Germany; focus on mass spectrometry-based systems medicine and multi-omics analysis
- 2021–2023, Postdoctoral researcher in the research group of Christian Frezza, University of Cologne, Germany; worked as a data scientist with a focus on transcriptome, proteome, and metabolome data as well as multi-omics integration
- 2017–2021, PhD student in the research group of Christian Frezza, University of Cambridge, United Kingdom; developed a model for fumarate hydratase deficiency and investigated metabolic reprogramming under nutrient and oxygen gradients