

Dr. Michael Römer



Background

- since 11/2016: Scientist at [Immatics Biotechnologies GmbH](#)
- 10/2013 - 10/2016: Research assistant at the Department of Cognitive Systems, University of Tübingen
- 10/2011 - 09/2013: Master of Science in Bioinformatics at the University of Tübingen
- 10/2008 - 09/2011: Bachelor of Science in Bioinformatics at the University of Tübingen
- 06/2008: Abitur at the Wilhelm-Ostwald-Gymnasium Leipzig

Research Interests

- Toxicogenomics
- Transcriptomics
- Machine learning
- Systems biology

Projects

- MARCAR: Biomarkers and molecular tumor classification for non-genotoxic carcinogenesis

Publications

- [1] Michael Römer, Heidrun Ellinger-Ziegelbauer, Bettina Grasl-Kraupp, Michael Schwarz, and Andreas Zell. MARCARviz: Interactive web-platform for exploratory analysis of toxicogenomics data for nongenotoxic hepatocarcinogenesis. *PeerJ Preprints*, 4:e2393v1, August 2016. [[DOI](#)]
- [2] Albert Braeuning, Alina Gavrillov, Miriam Geissler, Christine Wenz, Sabine Colnot, Markus F Templin, Ute Metzger, Michael Römer, Andreas Zell, and Michael Schwarz. Tumor promotion and inhibition by phenobarbital in livers of conditional apc-deficient mice. *Archives of Toxicology*, pages 1--14, February 2016.
- [3] Michael Römer, Johannes Eichner, Andreas Dräger, Clemens Wrzodek, Finja Wrzodek, and Andreas Zell. ZBIT Bioinformatics Toolbox: a Web-Platform for Systems Biology and Expression Data Analysis. *PLoS ONE*, 11(2):e0149263, February 2016. [[DOI](#) | [link](#)]
- [4] Florian Mittag, Michael Römer, and Andreas Zell. Influence of Feature Encoding and Choice of Classifier on Disease Risk Prediction in Genome-Wide Association Studies. *PLoS ONE*, 10(8):e0135832, August 2015. [[DOI](#) | [link](#)]
- [5] Bettina Grasl-Kraupp, Teresa Riegler, Marzieh Nejabat, Jakob Paur, Johannes Eichner, Michael Römer, Andreas Zell, Rolf Schulte-Hermann, and Wolfgang Huber. Abstract 810: Non-genotoxic hepatocarcinogens induce growth and anti-apoptotic pathways in hepatocytes via mesenchymal cytokines. *Cancer Research*, 75(15 Supplement):810, April 2015. [[DOI](#) | [link](#)]
- [6] Stefan Ohrnberger, Abhishek Thavamani, Albert Braeuning, Daniel B Lipka, Milen Kirilov, Robert Geffers, Stella E Authenrieth, Michael Römer, Andreas Zell, Michael Bonin, Michael Schwarz, Günther Schütz, Peter Schirmacher, Christoph Plass, Thomas Longerich, and Alfred Nordheim. Dysregulated serum response factor triggers formation of hepatocellular carcinoma. *Hepatology*, March 2015. [[DOI](#) | [link](#) | [pdf](#)]

- [7] Michael Römer, Linus Backert, Johannes Eichner, and Andreas Zell. Toxdbscan: Large-scale similarity screening of toxicological databases for drug candidates. *International Journal of Molecular Sciences*, 15(10):19037--19055, October 2014. [[DOI](#) | [link](#)]
- [8] Johannes Eichner, Clemens Wrzodek, Michael Römer, Heidrun Ellinger-Ziegelbauer, and Andreas Zell. Evaluation of toxicogenomics approaches for assessing the risk of nongenotoxic carcinogenicity in rat liver. *PLoS ONE*, 9(5):e97678, May 2014. [[DOI](#) | [link](#)]
- [9] Michael Römer, Johannes Eichner, Ute Metzger, Markus F. Templin, Simon Plummer, Heidrun Ellinger-Ziegelbauer, and Andreas Zell. Cross-platform toxicogenomics for the prediction of non-genotoxic hepatocarcinogenesis in rat. *PLoS ONE*, 9(5):e97640, May 2014. [[DOI](#) | [link](#)]

Talks

- [1] Michael Römer, Heidrun Ellinger-Ziegelbauer, Bettina Grasl-Kraupp, Michael Schwarz, and Andreas Zell. MARCARviz: Interactive web-platform for exploratory analysis of toxicogenomics data for nongenotoxic hepatocarcinogenesis. [German Conference for Bioinformatics 2016](#), Berlin, Germany (12-15 September 2016).
- [2] Michael Römer. Bioinformatics for Biologists: Approaches for Interactive Visualization of Biological Data. Tübinger Bioinformatik Tag, Tübingen, Germany (12 June 2015).

Posters

- [1] Michael Römer and Andreas Zell. MARCARviz: Interactive visualization of microarray data with HTML and JavaScript. Tübinger Bioinformatik Tag, Tübingen, Germany (24 June 2016).
- [2] Michael Römer, Johannes Eichner, Andreas Dräger, and Andreas Zell. ZBIT Bioinformatics Toolbox. Applied Bioinformatics in Life Sciences, Leuven, Belgium (17-18 March 2016).

Summer Schools

- 07/2016: Medical Genetics Summer School, Tübingen, Germany, 24-27 July 2016
- 07/2015: Lipari School on Bioinformatics and Computational Biology, Lipari, Italy, 12-18 July 2015
- 09/2014: QBIC Summer School on New Approaches Towards Individual Medicine, Tübingen, Germany, 22-25 September 2014

Supervised thesis

Submitted	Author	Degree	Title (translated)	Announcement
10/2016	Jonas Neuner	Master	Prediction of hepato-carcinogenicity from microarray data	
08/2014	Mirjam Figaschewski	Bachelor	Integration of metabolic information in toxicogenomics	
07/2014	Felix Bartusch	Bachelor	Visual simulation of metabolic changes	

Contact

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