

Dr. Martin Hölzer

PERSONAL DATA

Name: Dr. rer. nat. Martin Hölzer

Gender: Male
Nationality: German
Family status: Married

Place and Date of Birth: Rudolstadt, Germany | 16 March 1988

Private Address: Jansonstr. 11, 07745 Jena Work Address: EMBL-EBI, Cambridge, UK

Phone: +49 160 92675865
Twitter: @martinhoelzer

Email: hoelzer.martin@gmail.com

Code: github.com/hoelzer Web: hoelzer-lab.github.io

SCIENTIFIC EDUCATION

01/2018 | **Doctorate degree**, Dr. rer. nat.

University of Jena

Grade: summa cum laude

Doctoral thesis: *The Dark Art of Next-Generation Sequencing: fundamental approaches for genomics, transcriptomics, and differential gene expression* Prof. Dr. Manja Marz, RNA Bioinformatics and High-Throughput Analysis

Faculty of Mathematics and Computer Sciences

since 01/2018 Team leader of an associated bioinformatics research group at the University of Jena

08/2013-12/2017 PhD student at University of Jena

12/2012 | **Diploma in Bioinformatics**

University of Jena

Grade: 1.4

Thesis: Data management of mass spectra and fragmentation trees with BExIS

Prof. Dr. Sebastian Böcker, Chair of Bioinformatics Faculty of Mathematics and Computer Sciences

10/2007-12/2012 | Studies of Bioinformatics at University of Jena

2006-2007 | Civilian service, Diakonisches Altenhilfezentrum, Bad Blankenburg

1998-2006 University entrance qualification, Friedrich-Fröbel-Gymnasium, Bad Blankenburg, Grade 2.0

MAIN AREAS OF RESEARCH

- Bioinformatics
- High-Throughput Sequencing
- Metagenomics and -transcriptomics
- De novo assembly and annotation
- Transcriptomics and comparative genomics
- · Non-coding RNAs
- · Microbes and viruses
- Oxford Nanopore Sequencing
- · Automation and visualization
- Containerization and workflow management

WORK EXPERIENCE

Current

Post-doc & team leader of an associated research group

RNA Bioinformatics/High-Throughput Analysis, Prof. Dr. Manja Marz, University of Jena

Supervision of Next-Generation Sequencing (NGS) projects including the automatization of workflows for assembly, annotation, variant calling, differential gene expression, metagenomics, and visualization of results. Development of novel applications for long-read sequencing data. Team leader of an associated bioinformatics group at the University of Jena.

10/2019-04/2020

Visiting researcher

EMBL-EBI European Bioinformatics Institute, Dr. Rob Finn, Wellcome Trust Genome Campus, Hinxton, Cambridge, United Kingdom

Working in the research group of Dr. Rob Finn on the analysis and classification of metagenomic samples using Nanopore long-read sequencing data and hybrid approaches.

since 06/2019

nanozoo GmbH

Co-founder and Co-managing director of nanozoo GmbH, Leipzig, Germany

Founded in mid-2019, nanozoo is a bioinformatics start-up providing end-to-end services for the production and analysis of microbial data. *nanozoo* has set itself the goal of removing barriers in bioinformatic data analysis to provide up-to-date standards and analyses to a broad mass of researchers.

08/2013-12/2017

PhD student

RNA Bioinformatics/High-Throughput Analysis, Prof. Dr. Manja Marz, University of Jena

Management of various NGS projects comprising 1) experimental design, 2) selection of appropriate sequencing parameters, and 3) data analysis, visualization and interpretation. Development of pipelines for downstream bioinformatical analyses. Examination of (meta-)genomic/transcriptomic data with a special focus on *de novo* assembly, annotation, and identification of differential expressed protein- and non-coding genes. Contributions to the emerging field of virus bioinformatics.

09/2009-05/2012

Student assistant

Chair of Bioinformatics, Prof. Dr. Sebastian Böcker, University of Jena

Integration of algorithms, data management and visualization for phylogenetic analyses and clustering.

PROFESSIONAL MEMBERSHIPS

since 01/2020

iRTG AquaDiva

Post-doc representative within the "integrated Research Training Group" (iRTG) of the CRC AquaDiva, University of Jena

The iRTG provides a structured training program for training and education open to doctoral and postdoctoral researchers of the CRC AquaDiva. It offers courses that bring together the fields of hydrology, geology, and biogeochemistry with omic technologies and bioinformatics.

since 06/2019

BioS

Member of the external advisory board of the EU project "Digital Skills on Computational Biology for Health Professionals" (www.bios-project.eu)

BioS aims at advancing the digital skills of medical doctors through the design, development and delivery of new modular vocational curricula on Computational Biology & Bioinformatics. As a member of the advisory board I am supporting the project by giving advice on the main outcomes of the project.

since 03/2017

EVBC

Founding member of the "European Virus Bioinformatics Center" (EVBC), University of Jena The EVBC is intended to bring together virologists and bioinformaticians across Europe and provide a platform for interdisciplinary collaborative projects. My expertise covers sequencing, design and high-throughput analysis of virus-enriched and -infected biological samples.

ORGANIZATION OF CONFERENCES AND WORKSHOPS

| 11/2019 | Workshop: Hands-on Nanopore sequencing: Adventures in |
|---------|---|

IIT, New Delhi, India

METAGENOMICS AND ANTIMICROBIAL RESISTANCE

Responsibilitites: Prepared workshop. Co-supervised and assisted students in a one-week practical course on the topic of Nanopore sequencing and metagenomics data analysis.

10/2018

Workshop: BIOINFORMATICS ANALYSIS OF NANOPORE

Doubice, Czech Republic

SEQUENCING DATA: AN INTRODUCTION

Responsibilitites: Co-prepared workshop and assisted students in a two-day practical course on the topic of Nanopore sequencing data analysis.

08/2018

Workshop: 23^{rd} International Bioinformatics Workshop on Virus Evolution and Molecular Epidemiology (VEME)

RKI, Berlin

Demonsibilities Compositing augminou Logistical tools

Responsibilitites: Supporting organizer. Logistical tasks.

05/2017

Hackathon: AGING-RELATED RNA-SEQ DATA ANALYSIS

University of Jena

STAY YOUNG OR DIE TRYING

Responsibilitites: Supporting organizer of this one-week hackathon. Logistical tasks.

01/2017

Conference: FIRST MEETING OF THE EUROPEAN VIRUS

University of Jena

BIOINFORMATICS CENTER

 ${\it Responsibilitites}: \ Supporting \ organizer. \ Logistical \ tasks.$

04/2014

Hackathon: VIRUS-INFECTED RNA-SEQ DATA ANALYSIS

University of Jena

FIGHT AGAINST EBOLA - IN SILICO

Responsibilitites: Prepared a one-week collaborative workshop as a main organizer and assisted participants in data analysis.

FURTHER TASKS BEYOND OWN RESEARCH

Sequencing project management

Management of more than 60 Next-Generation Sequencing projects, including the design of experimental set-ups and the definition of sequencing parameters. Calculation of project costs and communication between the wet lab partners and the sequencing facility. Organization of data handling and computational analysis.

· Supervision of master theses

- Lisa-Marie Barf, Bioinformatic and in vitro comparison among Chlamydia spp. to elucidate chlamydial host specificity and phylogeny. (completed 06/2019), co-supervised
- Lasse Faber, Effective clustering of de novo transcriptome assemblies. (completed winter 2019)
- Marie Lataretu, Spotting fungal mitogenomes in de novo assemblies of short-read NGS data. (completed summer 2018)
- Ruman Gerst, *PCAGO*: An interactive web service to analyze RNA-Seq data with principal component analysis. (completed fall 2017)

Supervision of practical works

- Anne Muriel Christin Ritsch, *Transcribed endogenous viral elements in Myotis lucifugus*. (completed summer 2019), co-supervised
- Lasse Faber, *Transcripto A Snakemake de novo transcriptome assembly pipeline.* (completed spring 2019)
- Daria Meyer, Endogenous Viral Elements (EVEs). (completed winter 2018), co-supervised

Supervision of bachlor theses

- Sandra Triebel, A comparison of short-read, long-read, and hybrid de novo genome assembly tools for the reconstruction of Mycoplasma bovis strains. (completed autumn 2019)
- Jannes Spangenberg, *Analysis of host-virus transcriptome data: exploring the unmapped.* (completed autumn 2019), co-supervised
- Rebekka Köhl, RNA-Seq analysis of a transfected human cell line. (started 07/2018)

Peer-reviews for international conferences

Annual International Conference on Research in Comp. Molecular Biology (RECOMB 2018), Annual International Conference on Intelligent Systems for Molecular Biology (ISMB 2017), German Conference on Bioinformatics (GCB 2014, 2015, 2017)

· Peer-reviews for journals

Nature Communications (2019), Microbiome (2019), Genome Biology (2019), BMC Supplements (2019), Scientific Reports (2019), Frontiers in Microbiology (2019), Virus Research (2018), Molecular Ecology Resources (2018) publons.com/author/1521002

SCHOLARSHIPS

| Jan. 2020 - Jan. 2021 | "Google for Education" Google Cloud Platform research credits for cloud calculations for a research proposal | € 5,000 |
|-----------------------|---|----------|
| Dec. 2018 - Jan. 2021 | "Add-on Fellowship for Interdisciplinary Life Science" of the Joachim Herz Stiftung, Hamburg, Germany | € 12,500 |

GRANTS

Amount

under consideration DFG Sachbeihilfe first application

"Reference- and assembly-free identification of differentially expressed isoforms by combining traditional short-read and Nanopore long-read direct RNA sequencing" Applied for € 242,658.00 for staff and € 50,550.00 for direct project costs

2020 - 2025 Thuringian Ministry of Science

> "Digitisation of the life sciences: Ways into the future". The University of Jena received €1.35 million to advance the digitization of life sciences. I was jointly responsible for the application and significantly involved in the compilation of the contents and the writing. Co-supervision of work packages and project partner (digleben.uni-jena.de/projektpartner).

Program of the University of Jena to support junior re-DEC. 2018 - MAR. 2020 € 9,930 searchers in obtaining third-party funding

Teaching

at the University of Jena

Teaching instructor

2018, 2019 Practical course: VIROINFORMATICS

Responsibilitites: Prepared, supervised, and assisted students in a two-week practical

course on the topic of virus detection from meta-transcriptomic NGS data.

2017, 2017/18

2018

Lecture & Practical course: LETEX BASICS FOR NATURAL SCIENTISTS

Responsibilitites: Presented lectures on the document preparation system &T_EX. Supervised and assisted 30 undergraduate students in a one-week full-time course. Graded daily

assignments, excercises, and exams.

2017/18 Practical course: High-Throughput Bioinformatics

Responsibilitites: Prepared, supervised, and assisted students in a two-week practical

course on the topic of RNA-Seq data analysis.

Teaching assistant

2016/17, 2017/18 Lecture: BASIC BIOINFORMATIC APPLICATIONS

2018/19 Responsibilities: Prepared and taught four 1.5-hour lectures on the topic of high-

throughput data analysis and assembly (From raw read data to differential expressed genes).

Prepared and supervised practical examples. Graded assignments and course exams.

2014/15, 2015, Lecture: VIRUS BIOINFORMATICS

2016, 2017 Responsibilitites: Developed and taught hour-long lessons on viral replication, assembly,

and sequencing.

2014/15, 2015/16, Lecture: HIGH-THROUGHPUT BIOINFORMATICS

Responsibilitites: Developed and taught hour-long lessons on sequencing technologies 2016/17, 2017/18

and protocols, Next-Generation Sequencing design, quality control and data processing, de novo and reference-based assembly, read quantification, normalization, and differential

gene expression analysis.

2015/16, 2018/19 Practical course: HIGH-THROUGHPUT BIOINFORMATICS

Responsibilitites: Prepared, supervised, and assisted students in a one-week practical

course on the topic of RNA-Seq data analysis.

SCIENTIFIC POSTER PRESENTATIONS

| 03/2019 | 3rd annual meeting of the European Virus Bioinformatics Center (EVBC), Glasgow, Scotland |
|---------|--|
| | Virus- and interferon alpha-induced transcriptomes of the microbat Myotis |
| | daubentonii. |
| 03/2019 | 29th Annual Meeting of the Society for Virology, Düsseldorf, Germany |
| | Virus- and interferon alpha-induced transcriptomes of the microbat Myotis |
| | daubentonii. |
| 09/2018 | German Conference on Bioinformatics, Vienna, Austria |
| , | Long reads matter: The advantages of nanopore long-read sequencing. |
| 05/2017 | Bioinformatics Mittelerde Meeting, Leipzig, Germany |
| | PoSeiDon: a web server for the detection of evolutionary recombination events |
| | and positive selection. |
| 03/2017 | 27th Annual Meeting of the Society for Virology, Marburg, Germany |
| , | PoSeiDon: a web server for the detection of evolutionary recombination events |
| | and positive selection. |
| 04/2016 | 26th Annual Meeting of the Society for Virology, Münster, Germany |
| -, | A method pipeline for the detection of positively selected sites in silico - exemplar- |
| | ily shown for bat Mx1. |

SCIENTIFIC ORAL PRESENTATIONS

| | slideShare |
|---------|--|
| 01/2020 | EMBI-EBI research talk, Hinxton, Cambridge, UK |
| | Nanopore long-read metagenomics: How long reads improve microbial and phage genomes |
| | from a complex aquifer system |
| 11/2018 | BioGeo-Colloquium, Jena, Germany |
| | The advantages of nanopore sequencing: because long reads matter |
| 11/2018 | Institut für Mikrobiologie der Bundeswehr, Munich, Germany |
| | A short and a long sequencing story about Ebola and Coronaviruses |
| 10/2018 | 16. Herbstseminar der Bioinformatik, Doubice, Czech Republic |
| | Session chair on virus bioinformatics |
| 07/2018 | 11th International Conference on Virology/Microbiology, Vancouver, Canada |
| | An Interface between Bioinformatics and Virology (KEYNOTE SPEAKER) |
| 02/2018 | 33. Winterseminar der Bioinformatik, Bled, Slovenia |
| | PCAGO: An interactive web service to analyze RNA-Seq data with principal component anal- |
| | ysis |
| 08/2017 | CRC AquaDiva Recruitment Symposium, Jena, Germany |
| • | Next-Generation Sequencing meets viruses |
| 02/2017 | 32. Winterseminar der Bioinformatik, Bled, Slovenia |
| • | PoSeiDon: A web server for the detection of evolutionary recombination events and positive |
| | selection |
| 10/2016 | 14. Herbstseminar der Bioinformatik, Doubice, Czech Republic |
| • | Fun with PCA: Insights into RNA-Seq based principal component analysis |
| 02/2016 | 31. Winterseminar der Bioinformatik, Bled, Slovenia |
| , | Evolutionary analyses of positively selected sites in the interferon-induced innate immunity |
| | factor Mx1 of bats |
| 03/2015 | 25th Annual Meeting of the Society for Virology, Bochum, Germany |
| -, - | Differential transcriptional responses to Ebola and Marburg virus infection in cells from |
| | bats and humans |
| 02/2015 | 30. Winterseminar der Bioinformatik, Bled, Slovenia |
| 1 - 3 | Fight against Ebola - in silico - |
| | , 5 5 |

CITATION ANALYSIS



PUBLICATIONS

Peer-reviewed journal publications

Ψ These authors contributed equally

- N. F. Mostajo $^{\Psi}$, M. Lataretu $^{\Psi}$, S. Krautwurst, F. Mock, D. Desirò, K. Lamkiewicz, M. Collatz, A. Schoen, F. Weber, M. Marz $^{\Psi}$, and M. Hölzer $^{\Psi}$. A comprehensive annotation and differential expression analysis of short and long non-coding RNAs in 16 bat genomes. *NAR Genomics and Bioinformatics*. 2(1):lgz006, 2019.
- A. Viehweger, S. Krautwurst, K. Lamkiewicz, R, Madhugiri, J. Ziebuhr, M. Hölzer, and M. Marz. Direct RNA nanopore sequencing of full-length coronavirus genomes provides novel insights into structural variants and enables modification analysis. *Genome Research*, 2019. IF: 10.1
- M. Hölzer^Ψ, A. Schoen^Ψ, J. Wulle, MA. Müller, C. Drosten, M. Marz, and F. Weber. Virus- and interferon alpha-induced transcriptomes of cells from the microbat *Myotis daubentonii. iScience* 1:647–661, 2019.

 IF: na
- 16 K. Laroucau, F. Vorimore, R. Aaziz, L. Solmonson, RC. Hsia, PM. Bavoil, P. Fach, M. Hölzer, A. Wuenschmann, and K. Sachse. Chlamydia buteonis, a new Chlamydia species isolated from a red-shouldered hawk. Systematic and Applied Microbiology 2019.
 IF: 3.2
- R. Kallies, M. Hölzer, R. Brizola Toscan, U. Nunes da Rocha, J. Anders, M. Marz, and A. Chatzinotas. Evaluation of sequencing library preparation protocols for viral metagenomic analysis from pristine aquifer groundwaters. *Viruses* 11(6):484, 2019.
- S. Peter, M. Hölzer, K. Lamkiewicz, P. Speroni di Fenizio, HA. Hwaeer, M. Marz, S. Schuster, P. Dittrich, and B. Ibrahim. Structure and hierarchy of influenza virus models revealed by reaction network analysis. Viruses 11(5), 2019.
 IF: 3.7
- M. Hölzer and M. Marz. De novo transcriptome assembly: A comprehensive cross-species comparison of short-read RNA-Seq assemblers. GigaScience 8(5), 2019.
 IF: 7.3
- 12 Z. Chen, E. Amro, F. Becker, M. Hölzer, S. Rasa, S. Njeru, B. Han, S. Di Sanzo, Y. Chen, D. Tang, S. Tao, R. Haenold, M. Groth, V. Romanov, J. Kirkpatrick, J. Kraus, H. Kestler, M. Marz, A. Ori, F. Neri, Y. Morita, and K. L. Rudolph. Cohesin-mediated NF-κB signaling limits hematopoietic stem cell self-renewal in aging and inflammation. J. Exp. Med. 216(1):152–175, 2018.
 IF: 10.8
- D. Desirò, M. Hölzer, B. Ibrahim, and M. Marz. SilentMutations (SIM): a tool for analyzing long-range RNA-RNA interactions in viral genomes and structured RNAs. Virus Res., 2018.
- D. Steinbach, M. Hölzer, M. Marz, M. Gajda, F. C. Von Rundstedt, and M. O. Grimm. Analysis of molecular mechanism of progression of non-muscle-invasive bladder cancer (NMIBC) by genome-wide exome and UTR mutation analysis. *Eur Urol Suppl.* 17(2):e1523, 2018.
 IF: 3.5

- 9 P. Möbius, G. Nordsiek, M. Hölzer, M. Jarek, M. Marz, and H. Köhler. Complete Genome Sequence of JII-1961, a Bovine *Mycobacterium avium* subsp. *paratuberculosis* Field Isolate from Germany. *Genome Announc.* 5(34), 2017.
 IF: 1.2
- 8 J. Fuchs, M. Hölzer, M. Schilling, C. Patzina, A. Schoen, T. Hoenen, G. Zimmer, M. Marz, F. Weber, M. A. Müller, and G. Kochs. Evolution and Antiviral Specificities of Interferon-Induced Mx Proteins of Bats against Ebola, Influenza, and Other RNA Viruses. J Virol. 12; 91(15), 2017.
 IF: 4.7
- P. Möbius, E. Liebler-Tenorio, M. Hölzer, and H. Koehler. Evaluation of associations between genotypes of *Mycobacterium avium* subsp. *paratuberculsis* and presence of intestinal lesions characteristic of paratuberculosis. *Veterinary microbiology.* 201:188-194, 2017.
 IF: 2.6
- K. Riege $^{\Psi}$, M. Hölzer $^{\Psi}$, T. Klassert, E. Barth, J. Bräuer, M. Collatz, F. Hufsky, N. Mostajo, M. Stock, B. Vogel, H. Slevogt, and M. Marz. Massive Effect on LncRNAs in Human Monocytes During Fungal and Bacterial Infections and in Response to Vitamins A and D. *Sci Rep.* 7:40598, 2017. IF: 4.8
- T. E. Klassert, J. Bräuer, M. Hölzer, M. Stock, K. Riege, C. Zubiría-Barrera, M. M. Müller, S. Rummler, C. Skerka, M. Marz, and H. Slevogt. Differential Effects of Vitamins A and D on the Transcriptional Landscape of Human Monocytes during Infection. *Sci Rep.* 7:40599, 2017.
- M. Hölzer^Ψ, V. Krähling^Ψ, F. Amman, E. Barth, S. H. Bernhart, V. A. O. Carmelo, M. Collatz, G. Doose, F. Eggenhofer, J. Ewald, J. Fallmann, L. M. Feldhahn, M. Fricke, J. Gebauer, A. J. Gruber, F. Hufsky, H. Indrischek, S. Kanton, J. Linde, N. M. Berrospi, R. Ochsenreiter, K. Rieger, L. Rivarola-Duarte, A. H. Sahyoun, S. J. Saunders, S. E. Seemann, A. Tanzer, B. Vogel, S. Wehner, M. T. Wolfinger, R. Backofen, J. Gorodkin, I. Grosse, I. Hofacker, S. Hoffmann, C. Kaleta, P. F. Stadler, S. Becker, and M. Marz. Differential transcriptional responses to Ebola and Marburg virus infection in bat and human cells. Sci Rep. 6:34589, 2016.
- M. Hölzer, K. Laroucau, H. H. Creasy, S. Ott, F. Vorimore, P. M. Bavoil, M. Marz, and K. Sachse. Whole-genome sequence of *Chlamydia gallinacea* type strain 08-1274/3. *Genome Announc*. 4(4):e00708-16, 2016.
 IF: 1.2
- P. Möbius^Ψ, M. Hölzer^Ψ, M. Felder, G. Nordsiek, M. Groth, H. Köhler, K. Reichwald, M. Platzer, and M. Marz. Comprehensive insights in the *Mycobacterium avium* subsp. *paratuberculosis* genome using new WGS data of sheep strain JIII-386 from Germany. *Genome Biol Evol.* 7(9):2585-2601, 2015. IF: 3.9
- A. H. Sahyoun, M. Hölzer, F. Jühling, C. Höner Zu Siederdissen, M. Al-Arab, K. Tout, M. Marz, M. Middendorf, P. F. Stadler, and M. Bernt. Towards a comprehensive picture of alloacceptor tRNA remolding in metazoan mitochondrial genomes. *Nucleic Acids Res.* 43(16):8044–8056, 2015. IF: 11.5

Submitted journal publications & preprints

W. A. Overholt, M. Hölzer, P. Geesink, C. Diezel, M. Marz, and K. Küsel. Inclusion of Oxford Nanopore long reads improves all microbial and phage metagenome-assembled genomes from a complex aquifer system. *bioRxiv.* 10.1101/2019.12.18.880807v1, 2019.

A. Viehweger, M. Hölzer, and C. Brandt. Addressing dereplication crisis: Taxonomy-free reduction of massive genome collections using embeddings of protein content. *bioRxiv.* 10.1101/855262v2, 2019.

R. Gerst and M. Hölzer. PCAGO: An interactive web service to analyze RNA-Seq data with principal component analysis. *bioRxiv*. doi.org/10.1101/433078, 2018.

Book chapter

M. Hölzer and M. Marz. Chapter Nine - Software Dedicated to Virus Sequence Analysis "Bioinformatics Goes Viral". *Adv Virus Res.* (ed. M. Beer), 99:233-257, Academic Press, 2017.

Theses

M. Hölzer. The Dark Art of Next-Generation Sequencing: fundamental approaches for genomics, transcriptomics, and differential gene expression. *PhD thesis*, University of Jena, 2018.

M. Hölzer. Data management of mass spectra and fragmentation trees with BExIS. *Diploma thesis*, in German, University of Jena, 2012.

SOFT SKILLS

| 06/2019 | Managing a Bioinformatics Core Facility, European Bioinformatics Institute (EMBL-EBI), |
|------------|--|
| | Hinxton, UK |
| 07/2018 | Fördermöglichkeiten für exzellente Nachwuchswissenschaftler/innen, Dr. Mareile Knees, |
| | Jena |
| 05/2018 | Workshop "Drittmittel einwerben", Jana Dümmler, Graduate Academy, Jena |
| 02/2018 | Patente als Chance für meine Forschung, Dr. Christian Liutik, Patentinformationszen- |
| | trum FSU, Jena |
| 02/2018 | Pursuing an Academic Career in Germany: Pros and Cons, Dr. Hanna Kauhaus, Graduate |
| , | Academy, Jena |
| 02/2018 | Proposal Writing Workshop, Frank Lauterbach, iRTG AquaDiva, Jena |
| 03/2014 | Mitteldeutscher Fundraisingtag, Crowdfunding: Chancen und Grenzen, FundraisingFo- |
| -, | rum e.V., Jena |
| 04/2013 | Jugendgruppenleiter Card (JuLeiCa), nationwide uniform identity card for voluntary |
| ., | people in youth work, VTPV e.V., Bad Blankenburg |
| 03/2012 | Mitteldeutscher Fundraisingtag, Fundraising und Freiwillige: wie passt das zusammen? |
| | FundraisingForum e.V., Jena |
| 09/2010 | Web 2.0 - für Vereine, Initiativen \mathcal{E} Parteien, Thomas Mergen, Friedrich-Naumann- |
| 03/20.0 | Stiftung für die Freiheit, Erfurt |
| | outsing the aid from one country |
| since 2002 | Various workshops, seminars, and advanced trainings about time and group manage- |
| 300 2002 | ment, group dynamics, self-motivation, project planning, association and employment |
| | law, speech, presentation, administration, and building management. |
| | nam, specers, presentation, administration, and building management. |

Non-scientific Leadership Experiences & Activities

Scout association "Bund der Pfadfinderinnen und Pfadfinder" (BdP)

| since 2019 | Management board member of "VTPV" registered society |
|------------|---|
| | Administrative tasks and representation of the scout activities in Thuringia. |
| since 2012 | Management board member of "Scoutactive" registered society |
| | Administrative tasks and writing of proposals for staff funding. |
| since 2008 | Assistant manager of BdP scouting center of Thuringia |
| | Administrative tasks, coordination of staff and volunteers, realization of adventure |
| | activities for kids and youths, technical support, web site and hardware supervision. |
| since 2007 | Assistant leader of BdP "Landesverband Thüringen e.V." |
| | Organization of activities in Thuringia and across national borders. Organized events and elec- |
| | tions. |
| 2005-2015 | Group leader of BdP scout tribe "Falken vom Greifenstein" |
| | Administration of the association. Management of scout camps, international cooperations, |
| | regular meetings. Represented the association at national and international events. |
| since 1998 | Member of BdP |

Water of Life

| 2019/20 | Member of the Cambridge University Whisky Appreciation Society |
|------------|---|
| since 2017 | Co-Founder and organizer of the Bad Blankenburger "Kessel-Treffen" |
| | Coordination of Scottish events and whisky tastings, kessel-treffen.de. |
| since 2014 | Whisky tastings |
| | Preparation and execution of whisky tastings for beginner and advanced |

Music

since 1999 | Piano

LANGUAGES

German Native language

English Written and spoken fluently

REFERENCES

Prof. Dr. Manja Marz

RNA Bioinformatics and High-Throughput Analysis Friedrich Schiller University Jena Leutragraben 1 07743 Jena Germany

Phone: +49 3641 9 46480

Email: manja@uni-jena.de

Dr. Konrad K. W. Sachse

1992–2015 Head of Department Friedrich Loeffler Institute Institute of Molecular Pathogenesis Germany, Jena, Thuringia since 2016 RNA Bioinformatics and

High-Throughput Analysis
Friedrich Schiller University Jena
Leutragraben 1
07743 Jena
Germany

Phone: +49 3641 9 46484

Email: konrad.sachse@uni-jena.de

Prof. Dr. Friedemann Weber

Institute of Virology Fachbereich Veterinärmedizin Justus Liebig University Gießen Schubertstr. 81 35392 Gießen Germany

Phone: +49 641 99 38350

Email: friedemann.weber@vetmed.uni-giessen.de

Dr. Rob Finn

European Bioinformatics Institute (EMBL-EBI) Welcome Genome Campus Hinxton, Cambridgeshire CB10 1SD United Kingdom

Phone: +44 1223 492 679 Email: rdf@ebi.ac.uk

Dr. rer. nat. Martin Hölzer