Junge GfV

# NEWSLETTER

Issue 4/22

## Highlights



## Upcoming events

07 September - 10 September 2022
European society for clinical virology conference

09 September 2022
15th Mini-Herpesvirus Workshop

21 September – 23 September 2022
21st Workshop "Immunobiology of Viral Infections"

27 September 2022
jGfV virology lecture series

## News

Dear fellows,

we hope you enjoyed your summer break! This issue features the reports of the 6th GfV workshop (page 4) and first workshop on One Health and Zoonotic Viruses (page 6). Furthermore, our 1st jGfV lab rotation scholarship awardee writes about his experiences (page 12).
Back from the summer break we will also start again our jGfV virology lecture series (page 23). Do not miss the chance to apply for the our best season paper awards and lab rotation scholarships (page 27).
Last but not least, we want to thank all the contributors of this issue.

Your newsletter team

# Preface

The jGfV board is now also back from the summer break and already started to plan the next workshops / events. What we can already release is that we will have a full jGfV session at the next annual meeting of the Society for Virology in Ulm (28.-31.03.2023).

As you may know – the GfV board and advisory board election just started. If you are a regular GfV member, then take the opportunity to vote for both. We, the jGfV, will of course stay in the GfV board and shape future topics of the Society as well.

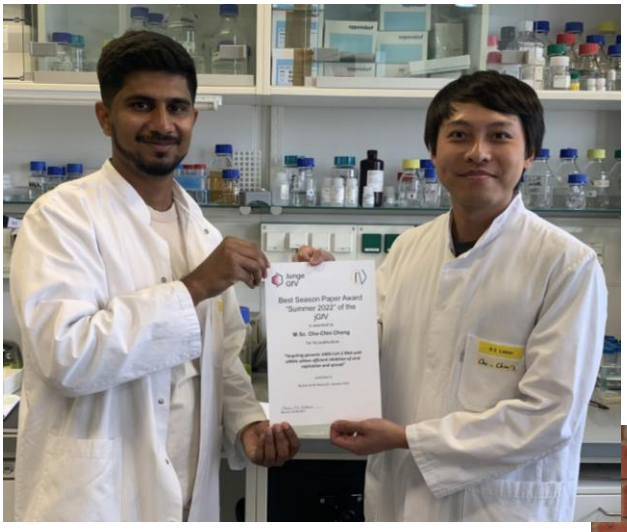
This issue is in fact our anniversary issue. We started about one year ago with a survey and initiated this higher organization for workshops in immunobiology and cell biology of viral infections, One Health, ACHIEVE, clinical virology and viral vectors. In addition, our newsletter is released every second month including great interviews, reports and support by professional coaches. We have initiated our virtual virology lecture series, our own homepage and SLACK channel are online and we are interacting with other young societies. In addition, we have established the best season paper awards and lab rotation scholarship fellowships, are actively participating in the GfV board and are now kicking-off the Young PI virology faculty. We will provide via ACHIEVE additional support for young virologists and are planning a virtual methods series and a mentoring program.
And it is great to see that over 220 young virologists already signed in for our mailing list! In order to grow – please tell your colleagues, friends, lab mates etc. who we are and what we are doing. The more young scientists we can reach via our mailing list, the better possibilities we will have to support you all!
And take as well the chance to shape the jGfV – you can suggest us topics that we have not yet covered, you can contribute with reports in our newletters – only to name a few possibilities ☺.

## CONGRATULATIONS TO OUR jGfV BEST SUMMER PAPER 2022 AWARDEES

**Cho-Chin Cheng**“
*“Targeting genomic SARS-CoV-2 RNA with siRNAs allows efficient inhibition of viral replication and spread”*
(Nucleic Acid Research, January 2022)

**Lisa Lasswitz**
*“The tetraspanin CD81 is a host factor for chikungunya virus replication”*
(mBio, May 2022)

**Birthe Reinecke**
*“The Human Liver-Expressed Lectin CD302 Restricts Hepatitis C Virus Infection”*
*(*Journal of Virology, March 2022)



Cho-Chin with his co-first author Shubhankar Ambike


Lisa


Birthe

# Reports

**6. GfV Workshop "Emerging Topics“**

*Sabrina Clever, University of Veterinary Medicine Hanover*
*Dr. Lisa-Marie Schünemann, University of Veterinary Medicine Hanover*

Recent developments in viral infections led to the rapid organization of the 6th GfV workshop concerning the topic “Emerging Topics: West Nile virus, monkeypox virus and adenovirus” this year (22. July 2022). Introduction was given by the GfV president Ralf Bartenschlager, followed by a first session chaired by Ingo Drexler. In this, West Nile viruses were presented by Pietro Scaturro, Ute Ziegler and Corinna Pietsch as a virus establishing in Germany due to climatic changes and being a concern regarding human health, as vaccines especially for humans are still missing. Being the main virus concerning the public at the moment, an overview of monkeypox was given by Asisa Volz before lunch break, followed by the second session, chaired by Thomas Dobner. This started with Christine Dahlke giving insights into a MVA-based vaccine developed against SARS-CoV-2, which is currently being tested regarding its efficacy against monkeypox. The interplay between viruses and the hosts defense regarding adenoviruses was introduced by Sabrina Schreiner, which was also discussed in the context of acute hepatitis by Albert Heim. The workshop with about 260 participants enabled vivid discussions and exchange, which additionally provided insights in current concepts to cope with those viruses.

If you have attended a jGfV-related workshop / conference / seminar and want to write a report about it, please email to jGfV@G-f-V.org.


## Confirmed keynote speakers:

**Prof. Dr. Florian Krammer**
*Icahn School of Medicine at Mount Sinai, Department of Microbiology, New York, USA*

**Prof. Dr. Wolfram Brune**
*Universität Hamburg, Institut für Biochemie und Molekularbiologie*

**Dr. Florence Margottin-Goguet**
*Institut Cochin, INSERM, Paris, France*

**Dr. Christine Dahlke**
*Universtätsklinikum Hamburg-Eppendorf, Medizinische Klinik & Poliklinik*

**Virus Species Determinants and Transmission**
**Meeting report of the 1st GfV Workshop on 'One Health and Zoonotic Viruses' in Goslar, Germany, 27-29 July 202**

*Sriram Kumar, University of Münster*
*Cora Stegmann, University of Veterinary Medicine Hanover Foundation*

Aiming to unite young scientists and experts working on *One Health and Zoonotic Viruses,* as well as to foster interdisciplinary interactions and cross-career collaborations, the newly established working group on *One Health and Zoonotic Viruses* within the German Society for Virology (GfV), organized the 1st workshop on the central theme *'Virus Species Determinants and Transmission'* from 27-29 July 2022 at Hessenkopf Convention Center, Goslar. The workshop attracted 34 participants from several fields, including virologists, infectiologists, immunologists, clinicians and veterinarians, to exchange their latest findings on viral zoonoses. The workshop commenced with a welcome note by the workshop chairs, Gisa Gerold (University of Veterinary Medicine Hanover Foundation) and Yvonne Börgeling (University of Münster), directly followed by the first keynote lecture by Ana Fernandez-Sesma from Icahn School of Medicine at Mount Sinai, USA, on the modulation of innate immunity by RNA viruses in primary human systems. In her presentation, she discussed the mechanisms by which arboviruses like Dengue virus and Chikungunya virus counteract the innate immune response, emphasizing the various ways these viruses interfere with the cGAS - STING pathway. In addition, she introduced dendritic cells and human tonsil explants as models to overcome the problem of immune deficiency of commonly used cell lines.

*Anja vom Hemdt (Center) - the student winner of the Best Oral Presentation Prize, along with the Workshop Chairs Yvonne Börgeling (Left) and Gisa Gerold (Right)*

During a later career development session involving all keynote speakers and participants, she answered many questions from the younger participants, highlighting particularly the boost in professional development when working in another country or when switching research focus after the PhD.

The first session of the workshop on *Host Restriction and Dependency Factors* included talks on viral factors facilitating entry into host cells, discussing cases of bat coronaviruses with spike proteins bearing specific single amino acid exchanges that enhance entry through human ACE2, and GlcCer glycolipids incorporated into the phenuivirus envelope favoring binding to host cells. The session also included talks on host factors promoting intracellular virus replication, quoting cases of endoplasmic reticulum import proteins favoring Zika virus replication, and the proviral roles of fatty acid elongases and desaturases in Dengue virus infection. Further talks highlighted host factors restricting infection or intracellular replication, like the RNAi response against insect-specific alphaviruses and USP10 inhibiting stress granule formation upon Chikungunya virus infection. Emphasis was also laid on highlighting molecular probes, quoting examples of hepatitis C virus NS3/4A protease to identify key host factors, and proximity labeling mass spectrometry to map early Chikungunya virus - host cell interactions. The session concluded with a discussion on designing therapeutic interventions that target potential proviral factors or exploit promising antiviral factors to counteract virus infection.

The last session of the first day ended with a special Q&A session on *Science Communication through New Media* hosted by Björn Meyer from Otto-von-Guericke-University Magdeburg, Germany. Björn shared his experience on communicating science via twitter and encouraged the workshop participants to take on the challenge of communicating latest research in a concise and understandable way. This induced a lively debate about the pros and cons of exposing oneself as a scientist on social media. The concerns of many participants were weighted against the career possibilities that can come with being visible as a professional online as well as the social responsibility to act against misinformation.

The second day commenced with the keynote lecture on *Hantavirus Entry into Host Cells and Molecular Features of the Gn/Gc Spikes* by Nicole Tischler, Fundación Ciencia and Vida, Santiago, Chile, highlighting the structural features of the hantavirus entry machinery and its high degree of flexibility and resistance to high temperatures.

The second session of the workshop on *Species Tropism: Reservoirs and Adaptation* focused on the molecular determinants of adaptation and pathogenicity, discussing examples of NS1 mutations facilitating adaptation of seal influenza viruses to mammalian and avian cells, polymerase proteins as pathogenicity determinants of avian influenza viruses in infected poultry, and polymerase compatibility as a molecular determinant of reassortment between human and Eurasian avian-like swine influenza viruses. The session also had talks on zoonotic hantaviruses and human noroviruses with similar context, as well on the multimammate rat Mastomys natalensis with respect to Arenavirus persistence and host species barriers restricting Lassa viruses, ending with talks on zoonotic spillovers of coronaviruses and replication-mediated spread of delta-like agents. Overall, the session appreciated the broad, multifactorial determinants of adaptation, evolution, persistence and host tropism of diverse viruses with high zoonotic potential.

The second session was followed by a guided tour of the beautiful UNESCO World Heritage city of Goslar, where the workshop participants got to know the medieval architecture and the rich history of the area. The third session of the workshop on *Species Tropism: Vectored and Insect-Specific Viruses* highlighted key interplay between virus pathogenesis and host processes, like the Toscana virus NS-controlled activation of an extrinsic apoptotic pathway in human cells, and the comparative characterization of Bourbon viruses from ticks and humans, in terms of their replication capacity and interferon sensitivity. The session was quickly oriented to discuss mosquito-borne viruses: Of special mention, student talks on the molecular roles of T-cell immunoglobulin and mucin domain 1 in cross-species transmission of alphaviruses, and on the recognition

of Cap 1 and Cap 0 flaviviruses in mosquito cells, provided both immunology and cell-biology perspectives to the session theme. The day ended with the third keynote lecture by Björn Meyer on the *Adaptation Potential of SARS-CoV-2 Spike*, stitching important literature and recent interesting results from his own research group, on the mutational hotspots and structural flexibility of SARS-CoV-2 spike, mediating faster evolution of new variants, and its overall implications over immune-escape, rapid transmission, Ab-neutralizing activity, and vaccine efficacy.

The last day of the workshop commenced with the final keynote lecture by Stefan Pöhlmann from the German Primate Center, Germany, on *SARS-CoV-2 Entry into Cells and its Inhibition*, highlighting the key scientific discoveries of his research group since 2020, including the identification of human ACE2 as an entry receptor for SARS-COV-2, and the serine protease TMPRSS2 for spike priming. A major focus of this keynote lecture was on evaluating diverse entry inhibitors, including TMPRSS2 inhibitor Camostat and convalescent sera from infected patients as potential therapeutics for SARS-CoV-2, extending to present-day omicron subvariants. The last session of the workshop on *Detection, Prevention and Treatment* included talks on interesting modern platforms favoring detection and safety-evaluation, for instance the serological assays for detection of orthonairovirus infections in ruminants, and a Measles vaccine platform as a safety standard for vaccine development against highly pathogenic *Francisella tularensis*. Presentations on advanced therapeutics, exploiting the CRISPR Cas13 system and IFNα subtype diversity for treating respiratory zoonotic viruses, promising antiviral approaches were discussed. With viruses escaping selection pressure imposed by therapeutics, the workshop rightly included discussions on spike variants escaping the selection pressure imposed by single and combined SARS-CoV-2 neutralizing monoclonal antibodies. The session concluded with a unanimous acknowledgement of the diverse molecular-biology based modern approaches that enable effective management of zoonotic infection outbreaks.

Anja vom Hemdt, a PhD student at the University of Bonn Medical Center, bagged the *Best Oral Presentation Prize* with a cash award of €100 from the GfV and a participation voucher for the 2023 One Health workshop, having received the maximum votes from student participants. The workshop concluded with formal closing remarks by Gisa Gerold and Yvonne Börgeling, thanking all the participants for their active interaction, and the keynote speakers for their constructive comments, across all sessions of the workshop. The workshop chairs also acknowledge the sponsors German Society for Virology and Joachim Herz Foundation for their financial support. The participants look forward to the 2nd workshop on *One Health and Zoonotic Viruses* planned to be organized in fall 2023, focused on yet-another interesting theme.

*Group photo with 2022 workshop participants at the Hessenkopf Convention Center, Goslar, Germany*

**SAVE THE DATE**

October 12th - 14th, 2022 – Schöntal (Germany)

Junge GfV

**Sprecher:**

**Meritxell Huch**
(MPI CBG)

**Veronica Krenn**
(University of Milan)

**Elena Martínez Fraiz**
(IBEC Barcelona)

**Laura Pellegrini**
(MRC Cambridge)

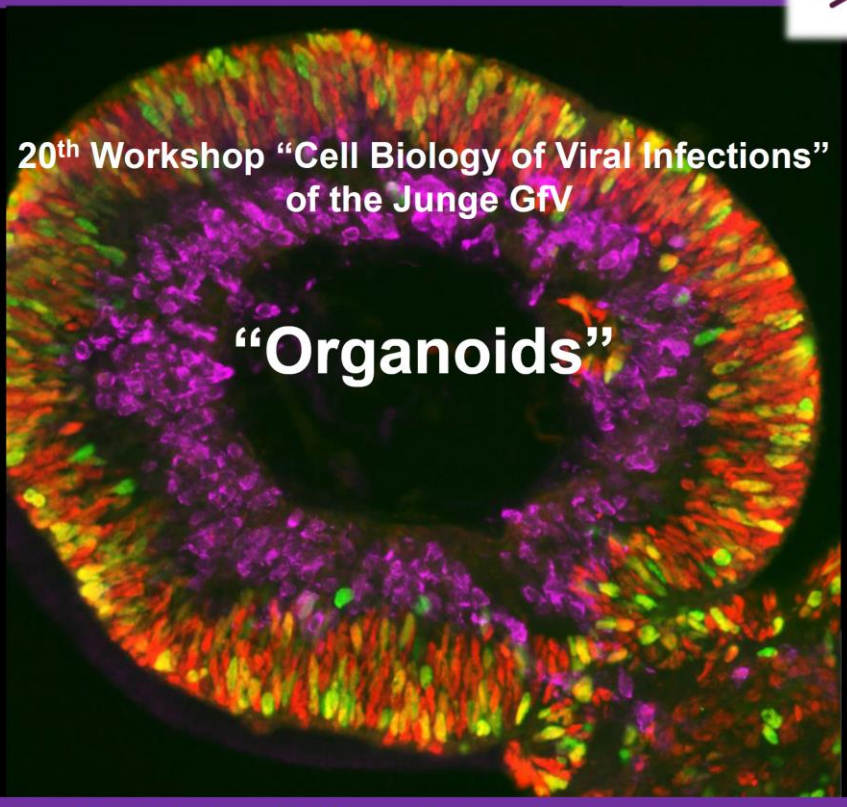



Image Credit: **David Gamm**, M.D., Ph.D., University of Wisconsin-Madison; reproduced from https://www.flickr.com/photos/nihgov/40269474401 under https://creativecommons.org/licenses/by-nc/2.0/

Chairs: **Eva Herker,** Philipps-University Marburg
**Thomas Hoenen**, Friedrich-Loeffler-Institut

www.gfv-cellviro.de

contact@gfv-cellviro.de

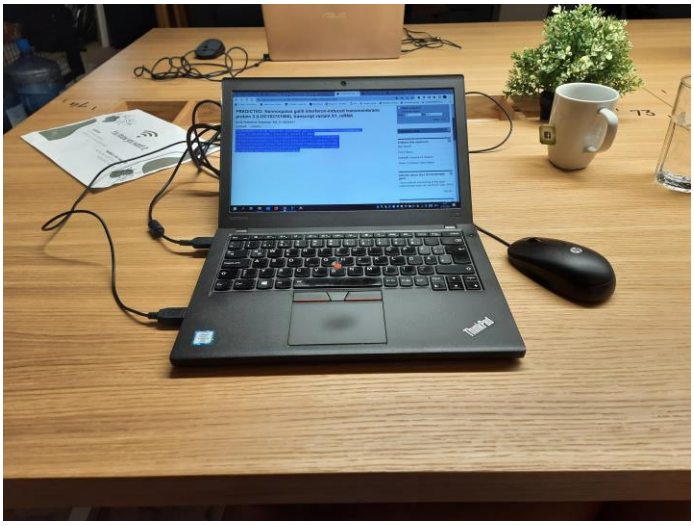
**Report from our 1st jGfV lab rotation scholarship awardee**

*Luca Schelle, Max von Pettenkofer Institute, Virology, LMU*

I am very honored that I have been awarded with the jGfV lab rotation scholarship 2022 and would like to express my gratitude to the jGfV board for selecting me. The scholarship enabled me to visit our valued collaborators Drs. Joana Abrantes and Pedro Esteves in Portugal at the Centro de Investigação em Biodiversidade e Recursos Genéticos (CIBIO) in Vairão near Porto in the timeframe of 11.07.2022-29.07.22.

They mentored me in evolutionary analyses of innate immunity factors: Retrieving and evaluating gene and mRNA (CDS) sequences from public databases, building the gene synteny to reflect similar genome feature contents and order along a chromosome in different species, manually aligning DNA and protein sequence sequences which build the basis of phylogenetic analyses and making phylogenetic trees to analyze the evolutionary history and relationships of innate immunity factors. This culminated in teaching me how to evaluate the evolutionary processes we identified. Furthermore, I enjoyed meeting new people and networking with them. I greatly expanded my knowledge about the evolution of innate immunity factors and acquired a new set of skills directly applicable within my PhD thesis. I am currently continuing those analyses back at home and I am preparing the obtained results of our fruitful collaboration for a manuscript. Apart from working with a huge number of sequences on my notebook, I really enjoyed the country, the excellent food and the people. I would like to share impressions of that wonderful experience with some pictures and encourage every young virologist to apply for the scholarship in the next round.

CONGRATULATIONS LUCA!



Fruitful discussions in an excellent working environment.

In Porto you can get tasty traditional dishes but also a vegan dessert.

Beautiful Matosinhos beach - the local beach of Porto.

Impressions of the city of Porto.


# …Run And Maintain A Network

Dr. Silke Oehrlein-Karpi
Biologist, Trainer & Coach

She worked for 10 years as a biologist in basic medical research, 3 years of which as a subproject leader of an immunology-related CRC. During this time, she gained her own leadership experience and supervised doctoral students as well as students and successfully acquired third-party funding.

**Step 1: Establishing Contact**

Put yourself in the position of the person you are interested in: Probably, they will be absorbed by their own tasks, which presumably resemble your own chores. What do you imagine they could need to engage with you and to even share information or help with you or give you feedback, etc.? If you know exactly what you want to ask for, it will be easier for them to assess whether they currently have these resources. You can approach them in conversation if you meet them in person or by e-mail.

An e-mail allows people the very flexibility to respond when it suits them best. Find a precise and attention-grabbing wording for the e-mail subject. You should keep the content of your message short: Let them know your name and some brief context-relevant information plus something particular about you, anything personal that can trigger your recipient's attention. Be clear about your purpose and why you are approaching them thanks to their particular personality and expertise. Ideally, you will write to them in a way that is polite, sincere and authentic all at the same time. To increase reliability, ask for an online appointment with your addressee within the next 14 days.

Ten years of employment as a researcher have also given her a comprehensive insight into the communicative, social and organizational structures of the academic system. Since 2008, self-employed as a certified online trainer, face-to-face trainer and coach. Her core topics are career development, visibility in networks, self-leadership, communication, supervision and leadership with a focus on competence orientation for people of all people working in academia.

At this point, you may also already suggest some timeslots for a first conversation. If the person does not respond within the next two weeks, you may try it once again; this time maybe in combination with a read receipt and/or with your supervisor put in CC. Your contact should understand that your request is serious because it means something to you.

**Step 2: May I Approach (More) Senior Scientists, i. e. PIs And Professors For Any Form Of Collaboration?**

Academia is characterized by formal hierarchies with different status groups (from PhD students, to junior and senior postdocs and professors). Networking, on the other hand, is to suspend these formalities to some degree. It requires you to build informal relationships in collaborations and scientific communities. Networks are based on sympathy, mutual trust and respect. People deal with each other on the same level and enjoy working together. If you perceive those qualities in your networking contacts, you should feel encouraged to proceed along these lines. If this is not the case, you really need to change something. Dependence, competing factions and power games should have no place in networks. As a rule of thumb, it will take some three years to develop a thriving network from scratch. You should approach more senior researchers on an equal footing. They are human beings like yourself. Undue respect is inappropriate and it may compromise your attempt to establish a working relationship.

The different perspectives from years of coaching practice give her a complex informal knowledge of the special working conditions in the academic-scientific field. She conducts trainings and coachings in German and English.

**Step 3: Maintaining Contacts**

Turn once more to your network map: It is a synopsis of those professionals you have met so far. You can easily approach each of them at any time. „Do you remember? We sat in the same lecture…" or "We did our PhD together…" It is enough to remind that person of the specific situation, to help you connect with each other. This concrete memory allows you to contact them in a way that is both low-threshold and informal. But you should always stick to the idea of a purpose. Do not approach people randomly, for none of us wants to be addressed superficially and/or for reasons we do not comprehend. And yes, we all face the risk of being rejected. This makes us feel vulnerable. Sometimes you will encounter a *"dead end"* in your efforts. But your experience will tell you that in the majority of the situations, the response you get is positive, if you do heed these suggestions. Leave your comfort zone and go for your goals!

**Last But Not Least: Networking Etiquette**

When people who want to belong to a network commence their efforts, they will have to engage actively and enter the *arena* in order to become visible with their expertise and their personality. Empirical research strongly suggests that in such networks personal strengths such as authenticity, reliability and commitment count more than mere formal qualification. Furthermore, you should look for heterogeneity in your network with regard to status, gender, expertise, experience, disciplinarity, nationality and culture, since this divergence clearly will promote career success.

The quality of your relationships is more important than quantity. Maybe you heard about the aspect of reciprocity: Taking and receiving should be in a balance. But you must not misunderstand that: It does not at all mean individual tit-for-tat relations. Instead, this aspect concerns the totality of your network: You will feed a resource into your network and you will get something in return at some other time and often from a different person. You should conceive of these processes is being organic. After a while of sharing and offering your assets, you will experience that the network will grace you with a harvest of generosity geared at you. Be freehanded in trustworthy and generous networks. However, you should never let yourself be exploited by power-imbalanced „secret societies“ – these are not worth your efforts ...

If you have topics for the „how to“ section we have not yet touched, please email to jGfV@G-f-V.org.

# The German Research Platform for Zoonoses – a network for One Health research in Germany

From a genomic point of view humans have more similarities than differences to other animal species on this planet. Therefore, it is not surprising that a variety of diseases are transmissible between animals and humans, which are called zoonoses. According to the Word Organisation for Animal Health (OIE), 60% of all human infectious diseases are zoonotic and at least 75% of emerging infectious diseases of humans have an animal origin. Consequently, zoonoses play a major role for global health and zoonotic spillover events pose a real threat, as the SARS-CoV-2 pandemic again demonstrated. Zoonoses research therefore makes an essential contribution to human and animal health.

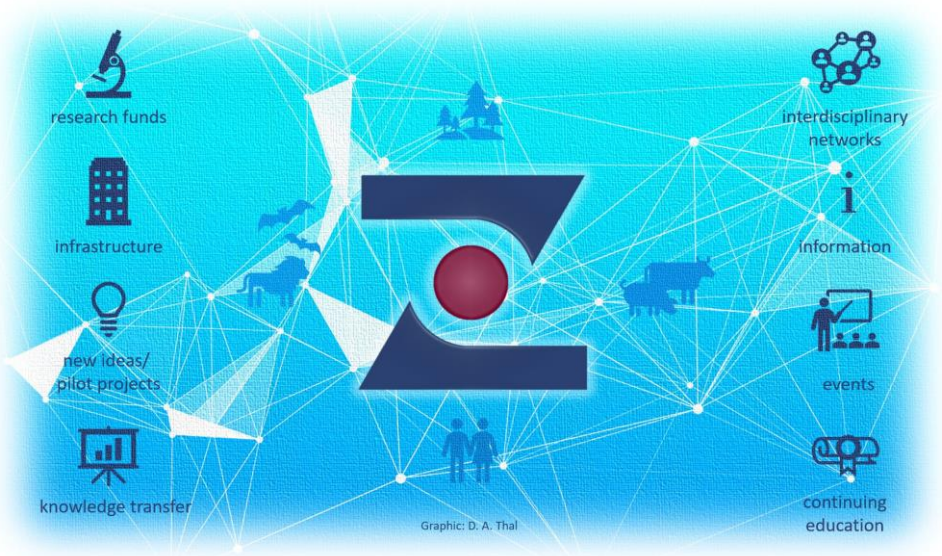
Zoonotic transmission cycles can be complex and are located at the interface between humans, animals (including reservoir and vector species) and the environment. Therefore, zoonoses research places special demands on scientists and research projects. The German Research Platform for Zoonoses aims to support scientists active in this research area in Germany and supports the scientific community in developing and implementing strategic goals. The BMBF-funded structure includes more than 1000 active researchers in Germany as members. With more than 12 years of experience, it promotes interdisciplinary exchange in the heterogeneous zoonoses research landscape, offers events and project funding, and supports interdepartmental collaboration.

A special focus lies on the support of young researchers. In order to foster interdisciplinary networks, knowledge transfer and joint research projects from an early career stage onwards, the Zoonoses Platform offers special event formats for early career scientists, such as the annual Junior Scientist Zoonoses Meeting.

Besides, different research funds are available via the Zoonoses Platform that allow young researchers to start their independent research career (pilot projects) and that support interdisciplinary education according to the One Health concept (interdisciplinary doctoral projects, One Health Certificate). Various activities help to increase visibility of young researchers in the community including a seat for a young researcher's representative within the Internal Advisory Board of the Zoonoses Platform or a Poster Slam at the annual International Symposium on Zoonoses Research.

Membership in the German Research Platform for Zoonoses is open to all researchers active in zoonoses related projects in Germany and is free of charge. For more information about the Zoonoses Platform please visit www.zoonosen.net or contact us via info@zoonosen.net.

*Text: Dr. Dana A. Thal, German Research Platform for Zoonoses*



# Job posts & Advertisements

In this section, we will post any job vacancies or workshops / conferences. If you are getting aware of any advertisements, please email to jGfV@G-f-V.org or post them on SLACK.

## Conferences / Workshops / Seminars

07 September – 10 September 2022
Annual conference of the European society for clinical virology
Manchester, UK
https://www.escv22.org/?gclid=EAIaIQobChMI_83Th7Wl9wIVAqp3Ch3wPAeyEAAYASAAEgLAAvD_BwE

09 September 2022
15th Mini-Herpesvirus Workshop
Essen, Germany
Contact for registration: katrin.palupsky@uk-essen.de

16 September 2022 (virtual; 14:00 – 15:30 pm)
8th VIRAL Symposium
Keynote Speaker: Isabella Eckerle (Geneva Centre for Emerging Viral Diseases)
https://viral-nrw.de/aktuelles/

20 September – 22 September 2022
GRK 2581 – International Symposium
"Sphingolipids in Infection 2022
München, Germany
https://www.uni-wuerzburg.de/grk2581/international-symposium/registration/

21 September – 23 September 2022
21st Workshop "Immunobiology of viral infections"
Bad Salzschlirf, Germany
https://immunviro.g-f-v.org/

27 September 2022 (virtual; 5:00 pm)
jGfV virology lecture series:
Adenoviruses – from a molecular to a clinical point of views by Prof. Dr. Thomas Dobner & PD Dr. Albert Heim
https://us06web.zoom.us/meeting/register/tJ0ode2grTkjG9KNBf0_zCnyNLaEB109p9QA

29 September – 30 September 2022
P1923 - international symposium "Innate Sensing and Restriction of Retroviruses"
Heidelberg, Germany
https://g-f-v.org/wp-content/uploads/2022/05/SPP1923-Meeting-2022_Poster_28042022.pdf

05 October – 07 October 2022
Zoonoses 2022 - International Symposium on Zoonoses Research by the German Research Platform on Zoonoses
Berlin, Germany
https://www.zoonosen.net/en/save-date-zoonoses-2022-international-symposium-zoonoses-research

06 October – 08 October 2022
International Symposium – From Paradigms to Paradoxes in Immunity and Immunopathology (PPII)
Freiburg, Germany
https://www.sfb1160.uni-freiburg.de/international-symposium/#registration

12 October – 14 October 2022
20th Workshop "Cellbiology of viral infections"
Schöntal, Germany
https://cellviro.g-f-v.org/

20 October – 21 October 2022
4th meeting of the European Congenital CMV Initiative (ECCI)
Athens, Greece
https://escv.eu/portfolio-posts/european-congenital-cmv-initiative-ecci-meeting/

21 October – 23 October 2022
9th European Seminar in Virology
Bertinoro, Italy
https://g-f-v.org/events/9th-european-seminar-in-virology/

19 February – 22 February 2023
Conference on Retroviruses and Opportunistic Infections (CROI)
Seattle, Washington
https://www.croiconference.org/

28 March – 31 March 2023
Annual Meeting of the Society of Virology (GfV)
Ulm, Germany

04 – 07 May 2023
8th European Congress of Virology 2023
Gdańsk, Poland
https://www.eusv-congress.eu/index.php?id=1930

11 May – 13 May 2023
31. BÄMI-Frühjahrstagung
Göttingen, Germany
https://www.baemi.de/?page=Veranstaltung

## Open positions

PhD Position
Lab of Prof. Ulrike Protzer
Institute of Virology of the Technical University Munich, Germany
https://web.med.tum.de/fileadmin/w00bvj/virologie/_my_direct_uploads/Ausschreibung_Stipendium_08_22.pdf

PhD Position
Lab of Dr. Viet Loan Dao Thi
Molecular Virology, Zentrum für Infektiologie, Heidelberg University Hospital, Germany
https://karriere.klinikum.uni-heidelberg.de/index.php?ac=jobad&id=15720

PhD Position
Virus-based technologies, Fraunhofer-Institut für Grenzflächen- und Bioverfahrenstechnik IGB
Application deadline: 06.09.2022
https://jobs.fraunhofer.de/job/Stuttgart-Wissenschaftlicher-Mitarbeiterin-Doktorandin-virus-basierte-Technologien-70569/832953201/

Postdoctoral position
Lab of PD Dr. Philipp Schommers
Translational viral immunology
Division of Infectious Diseases – Department of Internal Medicine I, University Hospital Cologne, Germany
https://jobs-uk-koeln.de/index.php?ac=jobad&id=4183

Postdoctoral Position
Light microscopy specialist
Department "Structural Cell Biology of Viruses" and central imaging unit at the Leibniz Institute of Virology (LIV)
Hamburg, Germany
https://www.leibniz-liv.de/fileadmin/media/pdf/2022_08_TPMIA_Light_microscopy_specialist_bf.pdf

Postdoctoral Position
Lab of Prof. Lars Dölken
Institute for Virology and Immjunbiology, University Hospital of Würzburg, Germany
https://www.virologie.uni-wuerzburg.de/fileadmin/03270000/2022/Job_announcement_Doelken_HSV-1_2022-05.pdf

Postdoctoral Position
Research group “human endogenous retroviruses”
Helmholtz Munich, Institute of Virology, Oberschleißheim, Germany
https://jobs.helmholtz-muenchen.de/jobposting/a50c836d9ecf1de193995b2756deed7483e1ea06

Medical specialist in microbiology, virology and infectious disease epidemiology
Federal Institute of Occupational Safety and Health
Berlin, Germany
Application deadline: 18.09.2022
https://www.baua.de/DE/Die-BAuA/Karriere/Stellenangebote/Infektionsschutz/43-22.html

Education assistant for medical specialist in microbiology, virology and infectious disease epidemiology
Labor Berlin – Charité Vivantes GmbH
Berlin, Germany
https://www.laborberlin.com/karriere/detail/weiterbildungsassistent-facharzt-mikrobiologie-hygiene/14942/#jobs

Assistant engineer fellowship position
Laboratory of Dr. Florence Margottin-Goguet
Institut Cochin, Paris
Start: December 2022
https://institutcochin.fr/equipes/retrovirus-infection-latence

Postdoctoral Position
Laboratory of Dr. Florence Margottin-Goguet
Institut Cochin, Paris
Start: January 2023
https://institutcochin.fr/equipes/retrovirus-infection-latence

## Funding / Awards

Best “Paper of the Season” award for early career virologists - by the young Society for Virology Germany (jGfV)
Application deadline: 01 December 2022
https://g-f-v.org/wp-content/uploads/2022/03/jGfV-awards-and-scholarships.pdf

Lab rotation scholarships for early career virologists - by the young Society for Virology Germany (jGfV)
Application deadline: 15 October 2022
https://g-f-v.org/wp-content/uploads/2022/03/jGfV-awards-and-scholarships.pdf

MSCA Postdoctoral Fellowships
https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-msca-2022-pf-01-01

## Useful Webpages

Graduate Student Funding Opportunities – compiled by the Johns Hopkins University
https://research.jhu.edu/rdt/funding-opportunities/graduate/

https://research.jhu.edu/rdt/funding-opportunities/graduate/

https://www.nature.com/naturecareers/jobs/search?text=virology&location

https://careers.cell.com/searchjobs/?Keywords=virology&radialtown=&LocationId=&RadialLocation=20

https://www.jobvector.de/stellensuche/?keyword=virologie&sort=score&pn=1

https://www.dfg.de/

https://g-f-v.org/

https://fems-microbiology.org/

# Interview with Dr. Sarah Schmidt

Dr. Sarah Schmidt, Executive Director Virology at Hookipa Biotech

Dr. Sarah Schmidt studied Biology at the Philipps-University Marburg until 2008 and completed her PhD in 2013 in the Department of Infectious Diseases, Virology, at the University Hospital Heidelberg (now CIID). Her work focused on profiling the expression of SAMHD1 in vivo as well as characterizing its antiviral activity in plasmacytoid dendritic cells. Furthermore, she characterized the interactions between CD317 and HIV-1 Vpu. After short PostDoc phase in the Institute of

***Interviewers:***
*Sriram Kumar, PhD Student, Institute of Virology, Munster*
*Philipp Ostermann, PhD Student, Institute of Virology, Dusseldorf*

**QUESTIONS:**

**1. What motivated you to pursue an industrial career after your first postdoc?**

***A.*** *Mostly I wanted to pursue research in a more applied environment. While the freedom you enjoy in (most) academic facilities is a big plus, I always missed the direct connection between science and patient or application. Therefore, starting my industrial career in a smaller biotech was ideal because I could still do science, but at the same time could follow our clinical drug candidates all the way to the patient.*

**2. Could you elaborate to us on what your department specializes in?**

***A.*** *At Hookipa Biotech GmbH, which is the Viennese subsidiary of Hookipa Pharma Inc., I am leading the Virology Unit. Our technology is based on arenaviruses, such as Lymphocytic Choriomeningitis Virus and Pichinde Virus, that we vectorize by applying an artificial genome organization which leads to attenuation and allows to encode genes of interest in the vector genome. These arenavirus vectors can induce potent indication-specific T cell responses that*

Medical Virology at the University Hospital Frankfurt am Main, she moved to Vienna end of 2014 and started as a Virology Scientist at Hookipa Biotech to develop an immuno-therapeutic vaccine to tackle HPV16+ cancer.
Sarah Schmidt was appointed as a senior Virology scientist at Hookipa in 2015, focusing then on the development of a research pipeline for immune-oncology indications and building a scientifically strong R&D Virology team. End of 2017 she moved to a management position as senior Virology director at Hookipa. Since 2021, Sarah Schmidt is Executive Director Virology at Hookipa Biotech.

*reinvigorate antiviral immunity in settings of chronic infection and immune exhaustion. Especially CD8+ T cells (CTLs) play a crucial role in eliminating tumor or chronically infected cells, which is exactly what HOOKIPA is striving for. My department is not only generating the various vectors and encoding many different antigens, but we are also conducting basic and innovative research to further refine and optimize our technology. To enable this, we invest time to set up novel virological and molecular biological assays. Further, the Virology team works closely with many other units, like our preclinical translational team, who investigate the vectored vaccines in vivo and in vitro, Upstream Processing, who take our seed vectors and upscale their production, Regulatory Affairs, for whom we function as Virology subject matter experts and even the clinical biomarker team, who we assist with assay development and execution.*

*This is exactly what I think is thrilling: you can follow the entire cycle of drug development from in silico drug design until clinic.*

**3. How does virology research differ between academia and industry?**

***A.*** *It is certainly more focused and timeline oriented. During my academic career I was always focused on the next publication. Our goal now is to make effective, high-quality treatments available for patients. To achieve this, we function and work as an integrated, collaborative team.*

*Lone warriors are less regarded and needed. Apart from this, I´d say the day-to-day research does not differ much from what´s going on in academic labs.*

**4. Did you receive additional training after your Postdoc to work on your first role?**

***A.*** *Not immediately. I started my time at HOOKIPA as a Scientist and was doing very similar things as during my Postdoc. I had to get used to a different way of lab-work documentation, but that was basically it. Down the road, when I assumed leadership of the department and was responsible for growing the team, which now consists of almost 20 people, I attended some leadership workshops and worked with a personal coach. I also enjoy reading and found myself some good literature to self-educate. But as with science, in management you never stop learning so there is certainly more to come for me.*

*For my team, I implemented a training system, that allows them to attend courses, trainings, and conferences during the year. Our lab technicians typically select courses that enable them to become the experts in the method they are routinely working on or to strengthen their virological background. My scientists usually enjoy training that focuses on their leadership skills.*

**5. How is your current daily routine different from what you had during your PhD?**

***A.*** *The most obvious difference is probably my workplace. Today, I am only going to the lab to surprise (or as some might say annoy) my teammates. Most of my daily work takes place at the computer or in meetings, which also allows me to work from home a good part of the week.*

**6. What are the most rewarding and challenging aspects of this career choice?**

***A.*** *The most rewarding aspect is certainly to see a drug you developed being applied to a patient. And if you then get to see a scan, on which a patient`s tumor is shrinking upon administration of this drug, it's just amazing. Also, being exposed and working with all the different disciplines and functions that comprise a pharmaceutical organization, is interesting and rewarding.*

*The timeline constraints under which we need to work are counted among the challenging aspects. Time is money, especially with cancer immunotherapy development, where it is both expensive and urgent.*

**7. Entering HOOKIPA as a Virology Scientist, you have moved-up the ladder to being an Executive Director now. How have your responsibilities changed across these roles?**

***A.*** *Entirely. When you leave the Scientist level and turn to a management position, you will start a new profession. You are stepping away from being the scientific expert. Ideally, you hire people who can do the science even better than you. That is a bit awkward in the beginning.*

*Now my major responsibilities comprise leading the Virology team, developing strategies to make the Virology R&D at HOOKIPA a success and translating results, achievements, or challenges into the bigger picture. However, I can still indulge in my passion for virology on a project and program level as a virology consultant for other functions within Hookipa. Sometimes, I even get to meet my former Virology colleagues at conferences and meetings.*

**8. Which soft-skills are most-valued in people aiming to embark onto an industrial career?**

***A.*** *We are typically searching for team players rather than lone warriors because only as a team we will be able to tackle the challenging complexity of what we do. You should be interested in translating your science into a bigger picture, rather than loosing yourself in the details. Drug development is comparable to running a marathon, so you should also bring some stamina and resilience, but who am I telling this to?*

*Thank you very much, Dr. Sarah Schmidt, for this interview!*

# Announcement

After the summer break the announcements are very limited ☺.

- Don't forget to register for our next jGfV virology lecture series

https://us06web.zoom.us/meeting/register/tJ0ode2grTkjG9KNBf0_zCnyNLaEB109p9QA

- Our next deadlines are **15th of October** for the jGfV lab rotation scholarships and **1st of December** for the jGfV best winter paper award 2022

IMPRESSUM

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