Junge GfV

NEWSLETTER

Issue 3/23

Highlights

Open letter: "How to….stay sane in an insane world"	Reports on HIV Symposium, Clinicial virology research workshop and jGfV virology lectures	Interview with Dr. Dieter Lehmann

Upcoming events

06 July – 08 July 2023
International DEEP DV Summer School

09 July – 13 July 2023
FEMS Congress

13 July 2023 (virtual, 5pm)
jGfV virology lecture series: HIV

30 August – 02 September 2023
Annual Conference of the European Society for Clinical Virology

News

Dear fellows,

you may have heard that Prof. Dr. Harald zur Hausen passed away recently. We - the jGfV – would like to honor him by publishing an interview on the GfV homepage, which he gave in April last year.
Time flies and summer is already here. We hope you'll enjoy our latest issue as you cool off on the beach or in your backyard. This time we have a different "how to…" section compared to the previous ones and we'd love to hear your feedback. In addition, we touch on German history with our interviewee.
Last but not least, we want to thank all contributors to this issue.

Your newsletter team

Preface

This is now the first issue of our newsletter, in which also Nele and take the lead as new "student" representatives. Thank you also for your valuable input in our survey. We will discuss the results thoroughly and improve our activities so that you can get the most out of it.

On a more personal note, the ACHIEVE board has undergone some changes. Corinna stepped down from her co-lead position and as Christina will be focusing more on the young PI virology faculty, Hanna-Mari will co-lead ACHIEVE with Stephie for one year and thus remain the spokesperson of the jGfV for one last year. The ACHIEVE board was looking for new young group leaders to join and was really impressed to receive such a large number of applications. Thus, the ACHIEVE board is now well equipped to take on new endeavors to support students to postdocs/physicians in training. The call for applications for the mentoring program will most likely open in the fall, so stay tuned.
With that, we wish you all a great summer ahead!

https://pxhere.com/de/photo/1138136

Technische Universität Braunschweig

DEEP DV
FOR5200

UKE
HAMBURG

International DEEP-DV Summer School

High resolution virology: imaging – omics – data science

6th – 8th July 2023 at the CSSB, Hamburg, Germany

Speakers

Anna Cliffe ● Charlottesville, VA, USA
Urs Greber ● Zurich, Switzerland
Kay Grünewald ● Hamburg, Germany
Torben Heick Jensen ● Aarhus, Denmark
Denes Hnisz ● Berlin, Germany
Fan Liu ● Berlin, Germany
Mathias Munschauer ● Würzburg, Germany
Thomas Quail ● Heidelberg, Germany
Maya Topf ● Hamburg, Germany
Matthew D. Weitzman ● Philadelphia, PA, USA

DFG Deutsche Forschungsgemeinschaft

- ✓ Imaging and integrative virology
- ✓ Transcription and nuclear compartments
- ✓ Chromatin and gene expression
- ✓ Omics
- ✓ Viral networks

VENUE

CSSB
Centre for Structural Systems Biology

- Every participant is encouraged to submit an abstract. Selected abstracts will be presented as short presentations or flash talks.
- All participants will have the opportunity to present a poster.
- The conference is free of charge.
- The event is limited to 120 participants.

Registration & Abstract Deadline: 31.05.2023

https://deep-dv.org/wp/international-deep-dv-summer-school-2023/

Report

Symposium on HIV immunity, Vaccine and Cure, Essen

Eva Müller, University Hospital Essen

An infection with the human immunodeficiency virus (HIV) directly attacks the body's immune system and a vaccination that protects against the infection is not yet available. CD4+ T cells in particular are infected and destroyed by HIV. The loss of these important immune cells and the accompanying collapse of the immune defense leads in the long term to the development of the acquired immune deficiency syndrome (AIDS). In the AIDS stage of HIV infection, those affected contract opportunistic infections caused by viruses, bacteria, fungi and parasites and develop cancer. According to the World Health Organization, more than 38 million people worldwide are currently infected with HIV. Fortunately, antiretroviral therapy (ART) can prevent the development of AIDS and the infection of other people if taken consistently. However, the infection cannot be cured with current treatments and there is frequent viral resistance to at least some ART drugs. Multifaceted and innovative research is needed to find a solution to the HIV epidemic in the future. Scientific meetings are particularly important to form scientific networks and present the latest research, but also clinical data.

To provide a platform for this debate/discussion, the Institute for Translational HIV Research (ITHF) at the University Hospital Essen, organized the 1st **Symposium on HIV Immunity, Vaccine and Cure** on April 21st and 22nd 2023. The goals of the two-day workshop were a direct exchange between HIV researchers and clinicians, the initiation of new research collaborations, and the promotion of networking between bench-science and translational research. The event was sponsored by the Kulturstiftung Essen. During these two exciting days, 60 researchers from German institutions (including the Universities of Munich, Erlangen, Ulm, Tübingen, Hamburg, Düsseldorf, Cologne), but also from England, Greece, and Ukraine presented their latest data on the

topics "Innate and Adaptive Immune Response to HIV", "HIV Vaccine Development", and "HIV Cure". The keynote speakers included Prof. Dr. Björn Jensen (University Hospital Düsseldorf) and Dr. Laura McCoy (University College London), Prof. Dr. Daniel Sauter (University Hospital Tübingen), and Dr. Jan Chemnitz (PROVIREX Genome Editing Therapies GmbH) and Dr. Ulrich Meyer-Bunsen (Janssen-Cilag Pharma GmbH).

The first day was opened with a short welcome by the Dean of the Medical Faculty of the University of Duisburg-Essen, Prof. Dr. Jan Buer, and a comprehensive overview of current status quo of the HIV research field by Prof. Dr. Ulf Dittmer, co-director of the Institute of Virology. Prof. Dr. Stefan Esser, then gave a brief and informative clinical update from his perspective as senior physician of the HIV/STI/Proctology Center Essen and co-director of the Institute for Translational HIV Research.

In the first session, focusing on **"HIV Therapy and Cure"**, Prof. Dr. Björn Jensen, senior physician at the University Hospital Düsseldorf, presented the astonishing case of the "Düsseldorf Patient", who is one of only a handful of HIV infected individuals likely to be cured of an HIV infection. Another interesting talk was given by Dr. Jan Chemnitz, who presented his company's approach to error-free genome editing, which can be used to excise proviral HIV DNA from the genome. In addition, Dr. Anna Malyshkina and Dr. Roland Schwarzer (one of the co-organizers of this event), presented their newest results in short talks. Dr. Schwarzer's talk focused on characterization of the latent HIV reservoir and the development of new means to neutralize it, whereas Dr. Malyshkina spoke about the role of cytotoxic T follicular helper cells in retrovirus infections. The session was closed with a particularly captivating presentation by our Ukrainian colleague Dr. Tetiana Koval and her co-workers Dr. Olena Sabinina, Dr. Liudmyla Kalinichenko, who spoke about the impact of the COVID-19 pandemic and the Russian war of aggression on the late diagnosis of HIV infections in Ukraine.

After a short refreshment at the buffet, the second session, dealing with **"Innate Immunity to HIV"**, was opened by Prof. Dr. Daniel Sauter,

who spoke about the regulation of HIV-1 gylcoprotein by endogenous retroviruses. PD Dr. Kathrin Sutter, another co-organizer of the symposium, then presented her newest data on the antiviral and immunomodulatory properties of human type I IFN subtypes, followed by the talk of Luca Schelle about antiretroviral guanylate-binding proteins from different species and their effects on retrovirus replication. Finally, Jun.-Prof. Dr. Elisabeth Littwitz-Salomon talked about the metabolic requirements of antiviral natural killer cells. After a short break with coffee and cake, the meeting proceeded with the talks by Dr. Mirja Harms (inhibition of X4-tropic HIV-1 infection by polyamines in semen), Anastasia Ritchie (induction of Rev-independent nuclear export of HIV-1 mRNA) and Kevin Pattberg (antiviral mechanisms of Cullin RING ubiquitin ligase beyond retrovirus accessory proteins). The first day ended with an informal dinner of all participants with delicious vegetarian and non-vegetarian food.

At the next day, the session on **"Adaptive Immunity to HIV and vaccines"** started with a presentation by one of the international guests: Dr. Laura McCoy from the University College London spoke about her work on memory B cell dysfunction and antibody functionality in people living with HIV. The next speaker, Frederica Mantovani travelled even further than Dr. McCoy, joining the symposium from Athens. She presented her latest *in silico* study on the interaction of HIV-1 and human endogenous retroviruses in patients and cell lines. Furthermore, Jun.-Prof. Dr. Christina Karsten, the third co-organizer of the symposium, spoke about the influence of glycosylation differences on the infectivity, spread and neutralization of SIV. The session was closed by the talk of Lara Schoeler, focusing on CMV sero-prevalence, reactivation and antibody effector functions in people living with HIV.

After another short coffee break, the last session was opened by the lecture of Dr. Ulrich Meyer-Bunsen from Janssen. He provided an insight into Janssen's recently completed study aiming to develop of a prophylactic HIV vaccine. Next, PD Dr. Vladimir Temchura presented his data on antibody responses to HIV-1 env coated calcium phosphate nanoparticles , followed by Dr.

Dominik Damm's talk about polyfunctional T helper liposomes as HIV-1 vaccine platform.

The session and the workshop were concluded by PD Dr. Hanna-Mari Baldauf. In her presentation, she explained her group's progress on the development of humanized rabbits as animal model for HIV.

Well supplied with lunch packages and full heads, everyone then set off on their journey home. The feedback from the participants was very positive, so that the symposium will likely be repeated in the future on an annual or biennial basis. The ITHF Essen would like to thank all participants for their active participation and the exciting discourse.

About the organizers: The symposium was hosted by the Institute for Translational HIV Research (ITHF). The Institute is headed by the President of the Society for Virology Prof. Dr. Ulf Dittmer and the Chairman of the German AIDS Society Prof. Dr. Stefan Esser. It is comprised by four young research groups led by Jun.-Prof. Christina Karsten, Jun.-Prof. Elisabeth Littwitz-Salomon, Dr. Roland Schwarzer, and PD Dr. Kathrin Sutter.

Junge GfV

ACHIEVE
Academy for Clinical and Experimental Virology

Announcement of the “How to…” lecture series

Have you ever wondered how to do a specific method in the lab or do you like to learn from other scientist’s hands-on experience?
Maybe you are not in a lab yet but interested in getting an overview about the important classical and hot new methods in virology?
In both cases, the “How to…” lecture series is for you.

In this talk series, our method experts will give you an overview about the ins and outs of an experimental technique. They walk you through the protocol step-by-step and you’ll be able to discuss your questions with equally interested peers. Maybe you even get some helpful tips to improve your research or expand your experimental portfolio!

If you are interested, please register for the free lecture series here or via the QR code.

Always on Tuesdays 12-12.45 pm:

Date	Speaker	Topic: „How to…“
07.02.2023	Jochen Wettengel	… clone smart, select reporter genes, and use Snapgene
07.03.2023	Lennart Köpke	… use different tools to make stable cell lines
04.04.2023	Jun-Gen Hu	… mutate viruses successfully
06.06.2023	Annett Ziegler	… generate high quality flow cytometry data and do FlowJo analysis
04.07.2023	Isabelle Reichert	… make beautiful microscopy images for advanced analysis
05.09.2023	Florian Pfaff & Sten Calvelage	… generate and analyze next generation sequencing data
10.10.2023	Andreas Walker	… get the most out of MinION sequencing
07.11.2023	Daniel Todt	… apply the right statistical methods

16. Workshop of the working group "Clinical Virological Research", Würzburg

Stephanie Beileke and Philipp Steininger, Institute of Clinical and Molecular Virology, Erlangen

The 16th workshop "Clinical Virological Research" was held this year for the first time in the Burkardushaus in the heart of Würzburg. Here, the participants had the opportunity to get to know each other in an inspiring atmosphere with lively discussions next to the Würzburg Cathedral.

The workshop was opened by the organizers Tina Ganzenmüller (Tübingen) and Philipp Steininger (Erlangen) by an overview of the activities and novelties in the jGfV during the last year. Malik Aydin (Witten) then introduced the newly founded working group "Young PI" of the jGfV, which is primarily intended to support young working group leaders in basic and clinical research in the development of their further scientific career path. In order to promote translational research, networking between both working groups "Clinical Virological Research" and "Young PI" is planned to be intensified, e.g. by organizing joint workshops. Subsequently, Theo Dähne (Freiburg) presented the results of the one-year evaluation of the monthly online continuing education circle which has been established at the beginning of 2021 and meanwhile became an indispensable opportunity to share experience in the fields of virological diagnostics and clinical research. The educational meetings primarily address colleagues in training as specialist ("Facharzt/-ärztin") in microbiology, virology and infection epidemiology or "Fachvirologe/in". Participants from almost all university virology institutes in Germany are represented there, as well as participants from Austria and North Italy. Both the content of the education circle (broad range of topics covered in the lectures and relevance to diagnostic activities) and the individual atmosphere facilitating collegial exchange, were rated very positively.

The first session was opened by Andreas Osterman (Munich) with a presentation on optimization and acceleration of serum-cerebrospinal fluid (CSF) diagnostics by ELISA immunoassays. Based on the primary measurement of virus-specific antibody concentration in

serum-CSF pairs, a software developed for this purpose calculates the most appropriate dilution levels for the samples for follow-up measurements.

Afterwards, Theo Dähne presented results of a systematic literature review on HSV hepatitis, which is due to its fulminant course an extremely important differential diagnosis of acute liver failure. Timely diagnosis and thus an early treatment with aciclovir can avert a potentially life-threatening course.

Next, Lena Jaki (Freiburg) presented a novel workflow for phenotypic (AAV-based vector system) and genotypic (NGS) HSV resistance analysis, that can be used to investigate the evolution of ACV resistance in HSV at whole-genome level and offers the possibility to improve the diagnosis of ACV resistance in clinical HSV isolates.

The Friday evening ended with a joint dinner in the comfortable ambience of the “Ratskapelle” at the Würzburger Ratskeller, where all participants had the chance to discuss and network.

The next day started with this year's Keynote Lecture by Jürgen Wenzel (Regensburg) on the topic "Hepatitis E in Germany - Overview and Epidemiological Situation". Being head of the National Consultant Laboratory for Hepatitis A Virus and Hepatitis E Virus he has a wealth of experience on the most common viral cause of acute hepatitis worldwide, enriched by numerous interesting excursions such as the cultural significance of the "Mettigel" or the mobility of wild boars.

Hepatitis E virus (Paslahepevirus balayani according to new taxonomy) was first detected by electron microscopy in 1983 by Mikhail Balayan in (self-) experiments (including ingestion of HEV-spiked yogurts for in vivo transport of the virus). Since its discovery, many paradigms about HEV have had to be abandoned as the various HEV genotypes differ fundamentally in their epidemiology, reservoir, route of transmission, clinic, and pathogenesis.

Formerly known as a fecal-orally transmitted anthroponotic agent of exclusively acute hepatitis (genotype 1), genotype 3 was later recognized as a food-borne zoonotic disease that can also lead to chronic infections and extrahepatic manifestations. In Germany, there are an estimated 400,000 HEV infections per year, of which only a very small proportion (< 1%) are symptomatic and an even smaller proportion is diagnosed and reported. Since over 80% of reported cases are autochthonously acquired in Germany, hepatitis E has long ceased to be a typical travel-associated infection. A recent investigation at the University of Regensburg of more than 900 HEV cases in Germany showed that > 99% of HEV infections are due to genotype 3, of which approximately 2/3 of cases are due to subgenotype 3c. The main route of transmission of HEV-3 in Germany is alimentary, i.e. through insufficiently heated products made from pork like raw sausages. 50% of domestic pigs are infected by HEV, which is a highly contagious virus for pigs, compared to about 15% of wild boars. Interestingly, direct human-to-human transmission is very rare with HEV genotype 3, making HEV outbreaks rather uncommon, unlike HAV. However, HEV can be transmitted by blood products Therefore, mandatory HEV-PCR screening for all donors was introduced in 2020. Only 0.5 - 1% of HEV infections are clinically apparent as hepatitis. Rarely, extrahepatic manifestations occur, such as neuralgic amyotrophy (NA), which presents with sudden onset of severe shoulder pain and muscle weakness. Chronic infections are almost exclusively observed in immunosuppressed patients. Serology is usually sufficient for the diagnosis of acute hepatitis E in immunocompetent individuals, whereas PCR diagnosis from blood and/or stool is required in immunosuppressed individuals or suspected chronic infections. There is no specific therapy, but reduction or conversion of immunosuppression and administration of ribavirin may lead to viral elimination. However, relapse may occur with ribavirin therapy due to ribavirin-associated mutations in HEV polymerase. With his lecture Jürgen Wenzel presented the high clinical relevance of Hepatitis E as well as the fascinating and enigmatic nature of HEV in a

very entertaining way leading to a very interactive discussion afterwards. Subsequently, Mathias Schemmerer (Regensburg) discussed different approaches and challenges in NGS-based whole genome diagnostics of hepatitis E virus. At the end of the "Hepatitis Session", Anne Cordes (Hannover) presented a newly developed real-time PCR protocol for the detection of adeno-associated virus (AAV) types 1-9. Previously considered rather apathogenic, reliable detection of these viruses has gained high diagnostic relevance with the outbreak of AAV-associated epidemic hepatitis in 2022. The subsequent series of lectures focused on SARS-CoV-2, highlighting various epidemiological, diagnostic and therapeutic aspects. Stephanie Beileke (Erlangen) presented the prospective seroprevalence study in the district of Tirschenreuth (TiKoCo-19 for short), which was conducted at three time points in 2020 and 2021, following a massive outbreak of SARS-CoV-2 in spring 2020 with a frighteningly high mortality rate. Key objectives of the study were to determine seroprevalence, underreporting, and infection fatality ratio across the study time points. Next, Samuel Jeske (Munich) showed the therapeutic success of mAb therapy in high-risk SARS-CoV-2-infected patients in a prospective observational study. Then, Johannes Rätz (Würzburg) presented the evaluation of a commercial IGRA assay for the quantification of SARS-CoV-2-specific T-cell reactivity. Magnus Wolf (Tübingen) demonstrated the relevance and heterogeneity of non-SARS-CoV-2 pathogens in cases of severe pneumonia or ARDS, such as adenoviruses species B, based on several detailed clinical cases. The importance of diagnostic and antiviral stewardship was also elaborated in order to enable an effective antiviral therapy at an early stage.

This workshop was again an excellent opportunity for sharing experience and new ideas between 32 participants from different medical and life science disciplines. Fortunately, we have not to wait for one year to continue our discussions, since we can meet again in the monthly online education circles. Nevertheless, we are already looking forward to our next workshop, which is scheduled for the 6th June 2024 https://clinviro.g-f-v.org/

Online-Weiterbildungszirkel

des jGfV-Arbeitskreises

„**Klinisch-virologische Forschung**“

Inhalt und Ziele

- Vorträge zu Themen der diagnostischen und klinischen Virologie
- Einblick in die verschiedenen universitären und außeruniversitären Tätigkeitsfelder
- Diskussionen zu aktuellen Themen
- Vernetzung unter jungen klinischen Virologinnen und Virologen
- Vorbereitung auf die Facharztprüfung

Wer:
Alle Ärztinnen/Ärzte und Fachvirologinnen/Fachvirologen in Weiterbildung (und auch darüber hinaus)

Wann:
Jeden ersten Freitag des Monats um 10:00 Uhr

Wo:
Online-Veranstaltung (Zoom)

Weitere Infos und Anmeldung unter:

https://clinviro.g-f-v.org/online-education-circle/

jGfV virology lecture series
- Ebola viruses –

Lisa Wendt, Institute of Molecular Virology and Cell Biology, Friedrich-Loeffler-Institute

The jGfV virtual virology lecture on ebolaviruses was held on April 13th by PD Dr. Thomas Hoenen (Greifswald) and Prof. Dr. Marylyn Addo (Hamburg), who gave us a detailed overview of the ebolavirus life cycle as well as the clinical presentation of ebolavirus disease. The lecture was hosted by Christine Wendel (Würzburg) and about 170 people attended the lecture. Dr. Hoenen, who is the Head of the Laboratory of Integrative Cell and Infection Biology at the Friedrich-Loeffler-Institut on the island of Riems (Greifswald), presented how the first filovirus was introduced to the German town of Marburg by imported lab animals in 1967 and when the first ebolaviruses (Ebola virus and Sudan virus) were discovered. Due to the high pathogenicity of filoviruses and the lack of countermeasures, work with infectious ebolaviruses is restricted to high containment laboratories, and Dr. Hoenen described how such a biosafety level 4 laboratory works. However, the main focus of his lecture was the detailed overview of the ebolavirus life cycle. He illustrated the structure of the filamentous ebolavirus particles and how ebolaviruses enter their host cells. After entry, fusion and disassembly of the matrix layer, ebolaviral RNA synthesis takes place in the cytoplasm of the infected cell. Dr. Hoenen explained how ebolavirus RNA synthesis is regulated by the phosphorylation status of the viral transcription activator VP30 and how new viral particles are formed at the plasma membrane of the infected cell. Before he concluded his lecture, he also briefly described how ebolaviruses antagonise the innate immune response. Prof. Addo, head of the Division of Infectious Diseases at University Medical Center Hamburg-Eppendorf and Director of the Institute of Infection Research and Vaccine Development, gave an overview of the clinical presentation of ebolavirus disease and the treatment options for this deadly disease. She explained how the first Ebola virus patient in Germany was treated in Hamburg in 2014, as one of the seven isolation wards in Germany that can handle

patients infected with high consequence viruses is located in the University Medical Center Hamburg-Eppendorf. The patient showed typical signs of Ebola virus disease, but due to the lack of specific antiviral drugs for ebolaviruses, they could only be treated symptomatically. Only later during the West African Ebola virus outbreak, clinical trials for vaccines and antiviral therapies like the PALM trial were conducted. Thanks to these efforts, there are now FDA and EMA approved vaccines as well as two FDA approved antibody treatments for Ebola virus disease. Prof. Addo described how these drug and vaccination trials were conducted, and she also talked about the current status for vaccines against Sudan virus, as this ebolavirus caused an outbreak at the end of 2022 and there are currently no approved vaccines or treatment options for infections with Sudan virus. After these two detailed and very interesting lectures there was plenty of time for a lively discussion with the young virologists.

jGfV virology lecture series - Cytomegaloviruses–

Lena Thiessen, Max von Pettenkofer-Institute, LMU Munich

On June 21st 2023, the virtual lecture series of the jGfV was all about cytomegalovirus (CMV). PD Dr. Tina Ganzenmüller from the Institute of Medical Virology in Tübingen and Prof. Melanie Brinkmann from the Institute of Genetics in Braunschweig introduced on the one hand the clinical aspects of cytomegalovirus infection and on the other hand gave us a detailed overview of the molecular biology and how the virus plays with the immune system. The chair was taken by Dr. Sara Becker from the Institute of Virology at the University Hospital Bonn who excellently guided the audience through both presentations and very interactive discussions.

In the first presentation held by Dr. Ganzenmüller, the focus lied on pre- and postnatal CMV infection. She started with an explanation of the basic characteristics of this beta herpesvirus that establishes lifelong persistence upon primary infection. In Germany, around 50% of the population is infected with CMV, whereas the worldwide seroprevalence is around 83%. She explained that there are two major risk groups: immunocompromised individuals such as transplanted patients and congenital or postnatal CMV infections that occur in a mother-child setting. Those groups are very likely to develop severe disease in particular the CMV end organ disease. Currently, no licensed vaccine is available but antivirals such as Ganciclovir can help to reduce the viral load. After introducing general aspects of CMV, Dr. Ganzenmüller focused on prenatal infections. Thereby, the CMV-positive mother transmits the virus to the unborn child via the placenta, which can lead to hearing and visual impairment of the newborn. She also explained that if CMV primary infection is detected during pregnancy, antivirals or hyperimmunoglobulin treatment can prevent the transmission to the unborn. In contrast, postnatal infection mainly occurs through breastfeeding in the neonatal period. Thereby, virus reactivation in the breast of a CMV-positive mother results in the transmission of the virus through the breast milk to the neonate.

However, increasing the awareness of CMV infections especially during pregnancy by following for example available hygiene guidelines will help to prevent the burden of disease, Dr. Ganzenmüller claimed. Prof. Brinkmann who gave attention to the molecular biology of the virus with the focus on immune evasion gave the second talk. In the beginning, she explained general characteristics of the virus. CMV showing the highest diversity of all human herpesviruses has a large genome of which 70% is dispensable for growth *in vitro*. The virus has a broad cell tropism and can infect multiple cell types including fibroblasts and endo- and epithelial cells. Prof. Brinkmann then focused on the viral replication cycle, especially how the virus mechanistically decides to follow the latent or lytic phase of infection. To establish lifelong infection, CMV needs to modulate cellular defense strategies. Therefore, the virus is extremely well adapted and interferes with cell intrinsic immunity such as type I interferon responses or the inhibition of CD4+ and CD8+ T cells. As Prof. Brinkmann works on type I interferon responses, she gave us a more detailed overview on pattern recognition receptors (PRRs) and how the virus evades PRR signaling at multiple levels. Lastly, she introduced how CMV can be studied *in vivo*. By using murine cytomegalovirus as model, molecular mechanisms including antibody-dependent cellular cytotoxicity and the involvement of NK cells in CMV infection can be investigated.

After the two talks, an interesting and active discussion within the participants occurred where for example questions about treatment effectiveness and molecular mechanisms were answered.

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.

Interesse an der **klinischen und diagnostischen Virologie** als Naturwissenschaftler*in oder Veterinärmediziner*in?

Dann wäre das **Zertifikat für Medizinische Virologie und Infektionsprävention („Medizinische/r Fachvirologe/in)** der GfV vielleicht das Richtige?

VORTEILE

- Qualifikation zur technischen Leitung eines Labors der medizinischen Virologie
- ggf. medizinische Freigabe technisch validierter Ergebnisse der Virusdiagnostik

Weitere Informationen unter:

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

… stay sane in an insane world

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.

Preface from the jGfV board: *This is not a typical "how to...." section that Silke writes for our newsletter. We had a controversial discussion about whether or not to publish her open letter. But the majority of us felt that it might be important to give a voice to an uneasiness and doubt that others might also feel or experience.*

I am sitting here in our garden … The sun is shining … The birds are singing … This Saturday morning I wanted to finally write my post for the jGfV on the topic "How to ... strategically work towards a goal"… I have prepared everything, even started writing a few lines ... The deadline is on Tuesday … I notice something is bubbling up towards the surface … Honestly, I can't write the piece... Not in time and not emotionally ... I have no inspiration at all for it at the moment.... This is due to several things, family wise there are a few challenges with us right now that require a lot of strength and attention from me… Also the topic itself triggers me… It's a very typical coaching topic, almost my most frequent one. I am an expert in helping people to strategically approach and achieve their goals … and actually, I am able to empower my clients succeed in doing so... This is my business as usual...

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 the same time I experience a loss of meaningfulness of exactly this mindset in our current world... We live in an unpredictable world with the greatest possible threats... Globally, people are totally irritated... Internally and externally... Many don't talk about it... Words are not enough to describe what all these terrible things mean to us and our future lives… Simultaneously, the looming doom is omnipresent…and whenever I bring it up in conversations, it bursts out of others ....Powerlessness, helplessness, total uncertainty, overwhelm, fear, anger, ...

Science has been a place of inhumanity all these past years.... Success or failure... Adaptation to the system or exclusion... Feeling and sensing forbidden... Patriarchy that holds on at all costs… Very clearly in the German-speaking system... Power and abuse of power... Women and other marginalized groups have been even more left out in the pandemic... Even though they are already strongly goal-oriented, hardworking, disciplined, conformed, highly organized, committed etc... The upright backbone in the second row, mostly invisible but efficient in the background ... The modest academic super power …

In my memories, all these experiences from conversations with so many people in the system, whom I have supported for 15 years now, so that they can remain self-effective and pro-active … The overall goals of coaching processes …

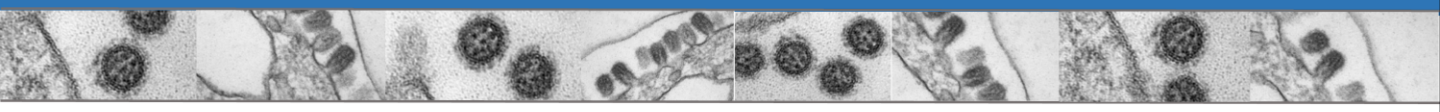
The different perspectives from years of coaching practice give her a complex informal knowledge of the special working conditions in the academic-scientific field. She conducts trainings and coachings in German and English.

This is the moment where I find myself confronted with the fact that we as coaches are trying together with our clients in numerous coaching sessions with joint efforts and dedication to optimize themselves and the related processes in a conservative system that has long reached its limits and has long been lacking the appropriate handling of people´s challenges who provide the system with their ingenuity, talents, passion and resilient commitment.
Here and now, I come into contact with quite a lot of frustration and even with resistance and anger ... I have to cancel my writing task at short notice - absolutely unusual for myself- … this task, which I have accepted a few months ago. …Although reliability is one of my most important values, it feels so absolutely coherent to myself to follow my inner voice…. I deliberately allow myself to step out of business as usual... It feels like the right decision … and guess what… ? This gives me immediately …. SPACE …

All the best and take care,
Silke

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

SAVE THE DATE



Junge GfV

2nd workshop of the GfV study group ‚One Health and Zoonotic Viruses'

September 2023, 6th to 8th – Goslar (Germany)

New and re-emerging zoonotic diseases

Keynote Speakers

- **Prof. Seema Lakdawala**, University of Pittsburgh School of Medicine, PA, USA
- **Prof. Martin Beer**, Friedrich-Löffler-Institute, Riems, Germany
- **Prof. Friedemann Weber**, Justus-Liebig-University Gießen, Germany
- **Dr. Allison Groseth**, Friedrich-Löffler-Institute, Riems, Germany

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

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Interview with Dr. Dieter Lehmann

Dr.rer.nat. Dieter Lehmann, retired

As a trained chemist, Dr Dieter Lehmann obtained his doctorate in 1965 in East Germany (GDR) on the subject of "Production of new heterocycles", and shortly afterward, he took up his long-standing position as a laboratory manager in one of the largest pharmaceutical companies in the GDR. Until his retirement, he worked on synthesizing blood pressure-lowering substances and developing alternative drug synthesis routes.

Interviewers:
Maximilian Kelch, PhD Student, Institute of Medical Virology, Frankfurt
Dr. Nele Villabruna, Postdoc, TiHo Hannover

1. You spent most of your professional career in the GDR. From today's perspective, how do you look at your work as a scientist?

A. *After my doctorate, I became a research associate at one of the largest nationally owned pharmaceutical companies in the GDR. This company had emerged from a pharmaceutical factory founded in the second half of the 19th century, which achieved a high degree of recognition by introducing numerous new drugs. The success of this company was based on intensive research work, which continued for decades into the 20th century and found its continuation after the Second World War in the GDR. After great losses due to the effects of the war and Russian dismantling, the factory was rebuilt, and a modern research area was created with the departments of synthesis, pharmacology, pharmacy, and toxicology. I began my work as a laboratory manager in 1965 in synthesizing and researching cardiovascular drugs. An important sub-area was the search for new drugs to treat hypertension, a widespread disease, the danger of which lay in the fact that it does not cause any symptoms in the initial phase but causes severe,*

In 1987, he and his team were awarded the National Prize "for the development of new syntheses for drug production" - one of the GDR's highest honours. He told us what he thought life as a scientist was like in the GDR, what changes the fall of communism in 1990/91 brought, what he would like to see in future scientists, and what he expects from them.

sometimes life-threatening diseases in advanced stages. The internationally known antihypertensive drugs at the time were highly effective but had considerable side effects. In the following years, new drugs were developed worldwide that made successful therapy possible. My task was to synthesise new active substances with blood-pressure-lowering effects. In addition, our team also worked on the synthesis of known active substances whose production was permitted under patent law. The research was difficult because of the lack of resources and materials, but we often found creative solutions to achieve our goal.

2. What influence did the policies of the GDR and the party have on your work as a scientist?

A. *I started my professional activity as a laboratory manager in 1965 and, after being dismissed for operational reasons, ended it in the same position in 1992, three years (?) before reaching the statutory retirement age. I felt it was an advantage that there were many opportunities for professional exchange through regular attendance at conferences and congresses in the GDR, except for events outside the GDR. Travelling, especially to non-socialist foreign countries, was reserved for politically scrutinized colleagues.*

Knowing that I had no opportunities be get promoted under the given circumstances, I felt comfortable in my field of activity. The few older colleagues in whose team I was accepted kept their jobs until retirement age; there was no fluctuation among the scientific staff. Newly recruited young colleagues were mostly comrades of the SED (socialist unity party Germany), for whom there was a career plan. Regardless, the team's working atmosphere was relatively apolitical and free of constraints. In other large chemical companies, it was common for academics to be obliged to become members of the GDR's combat groups.

3. How did you feel when you and your colleagues were notified that you were to be awarded the National Award II Class of the GDR? What exactly did you receive it for?

A. *Our collective received the National Award for Science and Technology. One of the reasons for the award was the great economic benefit that the team had brought to our company - a state-owned enterprise - and thus to the national economy of the GDR. The chemical processes for the production of active pharmaceutical ingredients, which were protected by several patents, were developed from the laboratory process to production readiness within a very short time. This was achieved by time-saving, smooth transfers of the individual process stages to the production scale in conjunction with a great commitment of the research team in the production area. As is well known, the national economy of the GDR was in a critical economic state in the late 1980s. The lack of foreign currency for importing urgently needed drugs prompted the state authorities to commission the GDR pharmaceutical industry to close this supply gap through in-house production. The end of the GDR's existence two years after the award also ushered in the end of my professional activity in the company.*

4. How did science, especially your work and the work of your colleagues, change in the east of the country at the time of the Wende after 1990?

A. *My professional activity ended two years after the Wende in 1992, so I only experienced the transition from the socialist economy to the free market economy in the initial phase.*

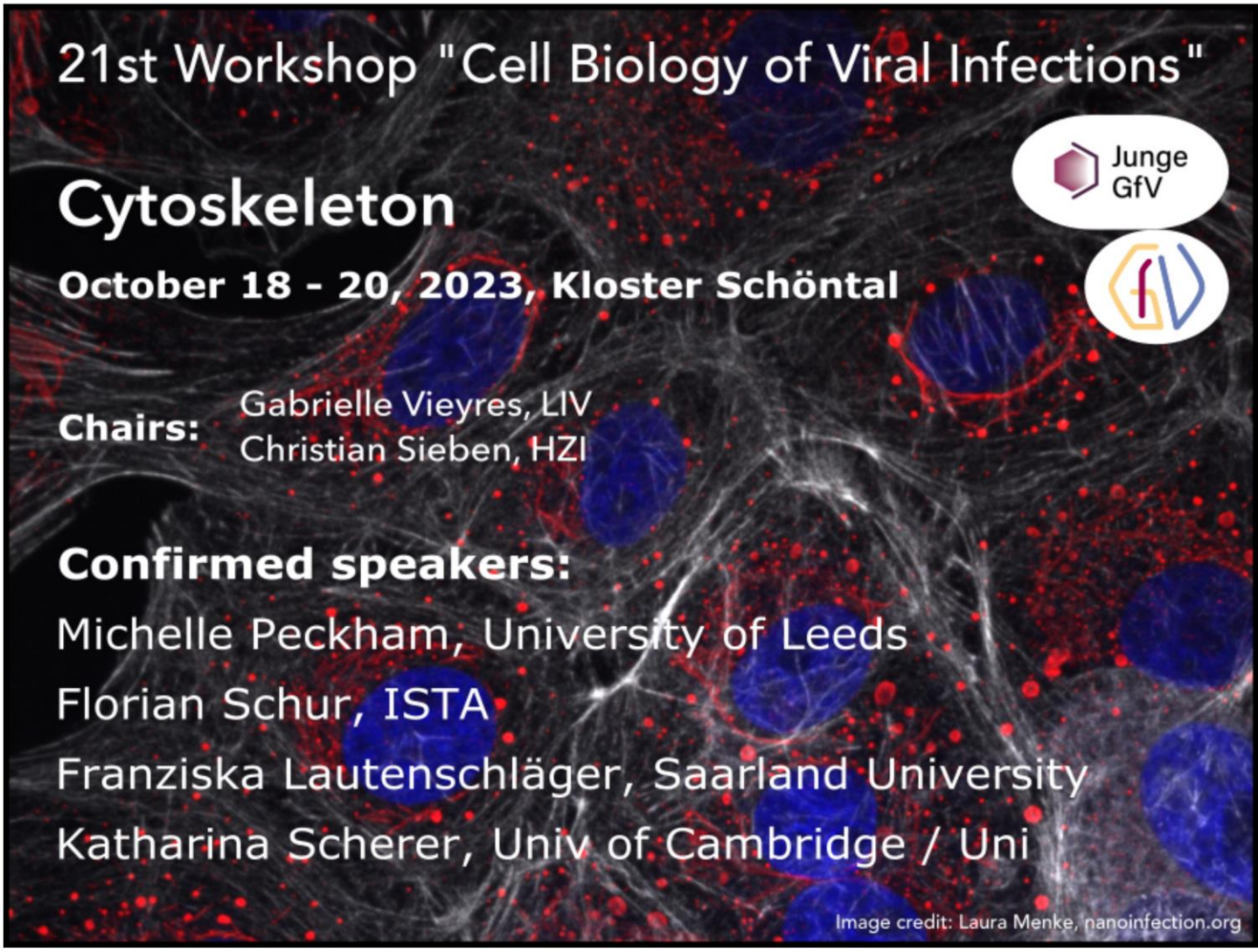
The reprivatisation of the company began with a drastic reduction in staff, which in the research area was mainly related to the academic staff because of the high average age. The painful loss of jobs was mitigated by the fact that almost all the colleagues affected could be released into early retirement. At the same time, the research area was reorganised in terms of personnel and administration. All workplaces were finally equipped with long-missing computers. The change meant that important parts of the company were sold. The research division was substantially downsized through outsourcing. After years of struggling for existence, the pharmaceutical company with formerly more than 2000 employees, where I worked for 27 years, is hardly noticeable 33 years after the Wende.

5. What advice do you have for young scientists like me regarding the possible return of economic constraints amidst the dynamics of today's world?

A. *Today's young scientists face great challenges. In 90 years of life, I have lived in three different social orders. From 1939 to 1945, it was fascist Germany with oppression, concentration camps, the Holocaust, and the Second World War. The post-war period until 1949 in the Soviet occupation zone was characterised by restrictions and years of famine. The GDR, founded in 1949, did not come about through free democratic elections. A state emerged that had set itself the goal of building a socialist social order in which the working class was the ruling power and businesses, land, and property were expropriated. The model for this was the Soviet system, which was forcibly transferred to the GDR. As history has proven, this failed. The fall of the Wall and the reunification of Germany was an epoch-making event and the beginning of establishing democratic structures in East Germany, which laid the foundation for a more productive and open science. This must always be defended because it forms the basis for continuous scientific progress. I wish my grandchildren and their generation never to experience a dictatorship and to stand up for peace and freedom worldwide. Economic constraints will continue to exist in the future, but in a strong democracy, as in science, alternatives and solutions will always emerge.*

In addition to this very political aspect, the growth of knowledge in all disciplines is, of course, increasing exponentially, and it is becoming more and more difficult to keep track of the resulting data and to bring it together to extract relevant knowledge.
This is a major challenge for information technology and every single scientist. Artificial intelligence is still a young science that will gain importance in all fields. It is now up to the young scientists here to control this potential superpower and deal with it responsibly. I wish the readers of this article strong opinions, a strong urge to discuss, and a lot of curiosity for their future scientific careers.

Thank you very much, Dr. Dieter Lehmann, for this interview!


21st Workshop "Cell Biology of Viral Infections"
Junge GfV
Cytoskeleton
October 18 - 20, 2023, Kloster Schöntal
Chairs:
Gabrielle Vieyres, LIV
Christian Sieben, HZI
Confirmed speakers:
Michelle Peckham, University of Leeds
Florian Schur, ISTA
Franziska Lautenschläger, Saarland University
Katharina Scherer, Univ of Cambridge / Uni
Image credit: Laura Menke, nanoinfection.org

IUBMB & FEBS Junior Section

The international Union of Biochemistry and Molecular Biology unites biochemists and molecular biologists in 75 countries. The IUBMB is devoted to promoting research and education in biochemistry and molecular biology throughout the world and gives particular attention to promoting opportunities for trainees and providing opportunities in areas where biomolecular sciences are less well developed. The IUBMB organizes or sponsors workshops, symposia and training sessions on biochemical and molecular biological education and provides free textbooks and journals to training institutions in developing nations. The IUBMB also funds short-term fellowships for trainees and early/mid-career biochemists and molecular biologists to travel to other institutions to perform research not possible in their own laboratories. It also provides travel fellowships for trainees to attend meetings around the world. IUBMB closesly works together with the FEBS Junior section, which is part of the Federation of European Biochemical societies. FEBS has become one of Europe`s largest organization in the molecular life sciences, where the FEBS junior section promotes the training of early-career scientists.

For more information, please visit:

IUBMB
https://iubmb.org/
https://twitter.com/iubmb_trainee
https://www.instagram.com/iubmb_trainee/
Mailing list: http://eepurl.com/hSTcSX

FEBS Junior Section
https://twitter.com/FEBS_JS
https://www.instagram.com/febs_juniorsection/

Job posts & Advertisements

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

Conferences / Workshops / Seminars

06 July – 08 July 2023
International DEEP DV Summer School High resolution virology: imaging omics data science
Hamburg, Germany
https://g-f-v.org/wp-content/uploads/2023/03/DEEP-DV-Summer-School-2023_FlyerQR-Code.pdf

09 July – 13 July 2023
10th FEMS Congress of European Microbiologists
Hamburg, Germany
https://www.fems2023.org/

13 July 2023 (virtual; 5:00 pm)
jGfV virology lecture series: HIV – from a molecular to a clinical point of views
by Prof. Dr. Frank Kirchhoff & Prof. Dr. Christoph Stephan
https://us06web.zoom.us/meeting/register/tZMsfuyvrDIuH91SSxUXb57OdDA1uh7P4Ouv

30 August – 2 September 2023
Annual Conference of the European Society for Clinical Virology (ESCV)
Milano, Italy
https://escv2023.org/

06 September – 08 September 2023
DACh Epidemiologietagung 2023
Leipzig, Germany
https://www.dvg.net/tagungen/termine/dach-epidemiologietagung-2023/

06 September – 08 September 2023
2nd workshop "New and re-emerging zoonotic diseases"
Goslar, Germany
https://onehealth.g-f-v.org/

10 September – 13 September 2023
Annual Conference 2023 of the Association for General and Applied Microbiology (VAAM)
Göttingen, Germany
https://www.vaam-kongress.de/

11 September – 13 September 2023
22nd workshop „Immunobiology of Viral Infections"
Bad Salzschlirf, Germany
https://immunviro.g-f-v.org/

13 September – 15 September 2023 (hybrid)
41. Jahrestagung der DVG-Fachgruppe „AVID" 2023
Bad Staffelstein, Germany
https://www.dvg.net/tagungen/termine/41-jahrestagung-der-dvg-fachgruppe-avid-2023/

14 September 2023 (virtual; 5:00 pm)
jGfV virology lecture series:
EBV – from a molecular to a clinical point of views by
PD Dr. Andreas Moosmann & Prof. Dr. Uta Behrends
https://us06web.zoom.us/meeting/register/tZMvduGgrj8sH9TTTShBXFsA_gPtB-QlgXHX#/registration

17 September – 20 September 2023
9th ESWI Influenza Conference
Valencia, Spain
https://www.eswiconference.org/

18 September – 20 September 2023
75. Jahrestagung der Deutschen Gesellschaft für Hygiene und Mikrobiologie e.V.
Lübeck, Germany
https://dghm-kongress.de/

23 September – 26 September 2023
10th European Meeting on Viral Zoonoses
St. Raphaël, France
https://escv.eu/portfolio-posts/10th-european-meeting-on-viral-zoonoses/

25 September – 26 September 2023
DZIF annual meeting
Hanover, Germany
https://www.dzif.de/en/event/dzif-annual-meeting-2023

01 October – 04 October 2023
29th International Symposium on Hepatitis C Virus, Flaviviruses and Related Viruses
Atlanta, GA, USA
https://www.hcv-flavi2023.org/

09 October – 11 October 2023
Zoonoses 2023 - International Symposium on Zoonoses Research
Berlin, Germany
https://www.zoonosen.net/zoonoses-2023-international-symposium-zoonoses-research

18 October – 20 October 2023
21st workshop "Cell Biology of Viral infections"
Kloster Schöntal, Germany
http://cellviro.g-f-v.org/registration_abstracts/

22 October – 25 October 2023
Medical Biodefense Conference
Munich, Germany
https://conference.instmikrobiobw.de

17 November – 21 November 2023
Facharztrepetitorium Medizinische Mikrobiologie, Virologie und Infektionsepidemiologie
Online Meeting
https://www.dghm.org/facharztrepetitorium/

29 November – 1 December 2023
Symposium "40 years of HIV science"
Institute Pasteur, Paris, France
www.40yhivscience.conferences-pasteur.org

4 December – 7 December 2023
RETROPATH workshop on retroviral pathogenesis
Trento, Italy
https://www.retropath2023.org/

11 December – 12 December 2023
1st workshop „Young PI virology faculty"
Marburg, Germany
https://youngpi.g-f-v.org/events/

25 March – 28 March 2024
Annual meeting of the Society for Virology (GfV)
Vienna, Austria

08 April – 12 April 2024
EMBO Workshop Pathogen immunity and signaling
San Servolo, Italy
https://coming-soon.embo.org/w24-34

06 June – 07 June 2024
17st Workshop "Clinical Virological Research"
Würzburg, Germany
https://clinviro.g-f-v.org/

Open positions

PhD Position
Identification of novel antiviral targets against Lassavirus (laboratory of Prof. Dr. Maya Topf)
Leibniz Institute of Virology
https://www.leibniz-liv.de/fileadmin/media/pdf/Ausschreibung_LCI_Call_2023_final_bf.pdf

PhD Position
Virology and RNA biochemistry
Justus Liebig University Giessen, Gießen, Germany
https://www.uni-giessen.de/karriere/stellenangebote/ausschreibungen/wissenschaftliche-mitarbeiter/383-11-englisch

PhD Positions
Zoonotic influenza A viruses, laboratory of Prof. Dr. Martin Schwemmle
Virology, University Hospital Freiburg, Freiburg, Germany
https://www.uniklinik-freiburg.de/fileadmin/mediapool/08_institute/virologie/bilder/Open_positions__2_.pdf

PhD Position
Metabolism, topology and compartmentalization of membrane proximal lipid and signaling components in infection
Biozentrum, University Würzburg, Germany
https://www.biozentrum.uni-wuerzburg.de/services/stellenanzeigen/einzelansicht/news/phd-positions-in-biology-physics-and-chemistry-in-part-time-65-research-training-group-metabolism-topology-and-compartmentalization-of-membrane-proximal-lipid-and-signaling-components-in-infection/

PhD Position and Postdoctoral Position
Post-entry events in retrovirus replication
Department of Infectious Diseases, Virology, University Hospital Heidelberg, Heidelberg
https://karriere.klinikum.uni-heidelberg.de/index.php?ac=jobad&id=19158

Scientist Position
Public Health Microbiology and Human Virology (whole genome pathogen analysis)
Bavarian Health and Food Safety Authority (LGL), Oberschleißheim, Germany
https://lgl-bayern-karriereportal.mein-check-in.de/detail/33acfc68-ff74-11ed-b3c4-005056a920ef

Scientist Position
Interaction proteomics
Federal Institute for Animal Health, Institute of molecular virology and cell biology, Greifswald, Germany
https://www.fli.de/en/career/vacancies/vacancy/wiss-raetin-oder-eines-wiss-rates-m-w-d-im-bereich-der-interaktionsproteomik-im-institut-fuer-molekulare-virologie-und-zellbiologie/

Scientist Position
Field of Animal Health (pathogens)
Federal Institute for Animal Health, Institute of Infectology, Greifswald, Germany
https://www.fli.de/en/career/vacancies/vacancy/research-group-leader-m-f-d-in-the-institute-of-infectology/

Scientist Position
Genetic Engineering Supervision
Regierungspräsidium Tübingen, Germany
https://www.nature.com/naturecareers/job/12799957/scientific-project-manager-for-the-area-of-vaccine-development-f-m-d-/?LinkSource=PremiumListing

Postdoctoral position
Bioinformatics / Informatics / Computational Biology, research group IMMUNOMOD (Jun. Prof. Dr. Konstantin Sparrer)
Institute of Molecular Virology, Ulm University Medical Center, Ulm, Germany
https://www.nature.com/naturecareers/job/12800096/postdoctoral-fellow-m-f-d-bioinformatics-informatics-computational-biology/?LinkSource=PremiumListing

Postdoctoral position
Vaccinology, laboratory of Prof. A. Didierlaurent
Centre of Vaccinology, University of Geneva, Switzerland
https://www.unige.ch/medecine/gcir/en/employment/postdoctoral-job-opportunity-vaccinology/

Research Group Leader
Immunology of viral infections
Federal Institute for Animal Health, Institute of immunology, Greifswald, Germany
https://www.fli.de/en/career/vacancies/vacancy/research-group-leader-m-f-d-in-the-institute-of-immunology/

Scientific Project Manager
Vaccine Development and Development of anti-infectives
German Centre for Infection Research (DZIF), Brunswick, Germany
https://www.nature.com/naturecareers/job/12799957/scientific-project-manager-for-the-area-of-vaccine-development-f-m-d-/?LinkSource=PremiumListing

Clinical research physician
Groger Research Group: Clinical trial conduct
Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany
https://jobs.bnitm.de/Clinical-research-physician-mfd-at-the-department-of-clini-eng-j288.html

Veterinary physician
Animal Experimental Research
Robert Koch Institute, Berlin, Germany
https://www.rki.de/DE/Content/Service/Stellen/Angebote/2023/117_23.html

Funding / Awards

Best “Paper of the Season” award for early career virologists - by the young Society for Virology Germany (jGfV)
Application deadline: 01 September 2023
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 2023
https://g-f-v.org/wp-content/uploads/2022/03/jGfV-awards-and-scholarships.pdf

Jürgen Wehland Preis
Application deadline: 25. August 2023
https://www.helmholtz-hzi.de/de/aktuelles/preise-auszeichnungen/juergen-wehland-preis/

Emmy Noether Program (DFG)
https://www.dfg.de/foerderung/programme/einzelfoerderung/emmy_noether/

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/

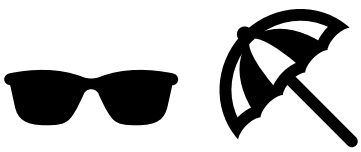
https://g-f-v.org/

https://fems-microbiology.org/

Announcements

- Check out our upcoming jGfV lectures, the monthly seminar from ACHIEVE as well us the different workshops:

- Have a great summer



IMPRESSUM

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