

## MICROVERSE SUBGROUP MEETINGS COMING UP

We have formed thematic subgroups that will meet at regular intervals to interlink the individual projects within the Microverse Cluster. The Cluster Management Team will announce the meeting dates, interested colleagues are welcome to join. An overview of the subgroups, members and dates will soon be available on the Intranet.

First subgroup meetings coming up (more dates will follow shortly):

### Gut microbiome / critically ill patients

Coordinated by [Sebastian Weis](#)

**February 25<sup>th</sup> at 14:00**, JSMC

### Gut-on-Chip

Coordinated by [Thilo Figge](#)

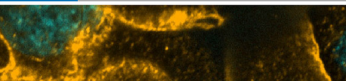
**March 13<sup>th</sup> at 14:00**, HKI, room Alexander Fleming

## MICROVERSE I SYMPOSIUM NOW ONLINE

### Microverse I

Joint International Symposium on  
Microbial and Biomolecular Interactions

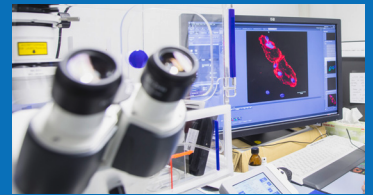
WELCOME INFORMATION PROGRAM REGISTRATION



Our first international symposium **Microverse I - Microbial and Biomolecular Interactions** will take place on **September 1<sup>st</sup>-3<sup>rd</sup>, 2020** at the lecture halls Ernst-Abbe-Platz. Please visit our conference website [www.microverse-conference.de](http://www.microverse-conference.de) for further information, a list of invited speakers and the preliminary program. Registration and abstract submission will open on March 2<sup>nd</sup>. Abstract submission deadline is June 15<sup>th</sup>.

## ZEISS EXCLUSIVELY SUPPORTS IMAGING EXPERIMENTS

The Microverse Imaging Center and the Carl Zeiss Microscopy GmbH are organizing a **Microscopy Workshop on April 28<sup>th</sup>**, giving you the opportunity to get in touch with Zeiss technology experts and to access latest (pre)commercial microscopes for finding suitable imaging approaches for your experiments. Interested? Please get in touch with Aurélie Jost ([aurelie.jost@uni-jena.de](mailto:aurelie.jost@uni-jena.de)). You may still submit your proposal until February 17<sup>th</sup>.



## CENTRAL GERMAN MEETING ON BIOINFORMATICS IN JENA

Please save the date: The **Mittelerde Meeting 2020 - 5<sup>th</sup> Central German Meeting on Bioinformatics** will be held on **June 23<sup>rd</sup> -24<sup>th</sup>, 2020** at the venue Rosensäle. It is organized by the Jena Centre for Bioinformatics and the Microverse Cluster. This year's meeting runs under the motto "Maths, Microbiomes, Molecular Medicine & More - 5 M's to rule them all!". More information can be found at [mittelerde-meeting.uni-jena.de](http://mittelerde-meeting.uni-jena.de). Abstract submission will start soon.

## COMMUNICATE YOUR SCIENCE

We not only strive for excellence in science but also in communicating our scientific findings to the public. We want to establish a **public engagement and social media team** that will meet regularly to brainstorm ideas, plan public outreach activities and populate our social media channels with interesting content. We invite members of the Microverse Cluster who are active on Facebook, Twitter, Instagram or LinkedIn to participate and bring in their creative ideas about science communication. Please contact Alena Gold from the Cluster Management Team: [alena.gold@microverse-cluster.de](mailto:alena.gold@microverse-cluster.de)

Alena Gold is also happy to support you with writing news articles, sharing your new publications within the Cluster consortium, announcing scientific events on our website and, and, and... Simply get in touch!

The Microverse Cluster is now on Twitter: [@microverse\\_exc](https://twitter.com/microverse_exc)



## SOME RECENT PAPERS BY MICROVERSE MEMBERS

Send us your new publications to share with the Microverse community: [contact@microverse-cluster.de](mailto:contact@microverse-cluster.de)

### Switching fatty acid metabolism by an RNA-controlled feed forward loop

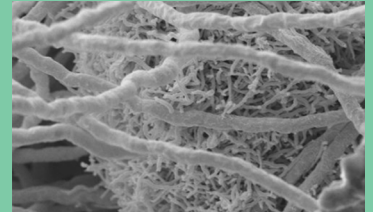
Kai Papenfort and colleagues | PNAS | 19 Mar 2020

A small regulatory RNA, FarS, was identified as part of a mixed feed-forward loop regulating the transition between fatty acid biosynthesis and degradation in the human pathogen *Vibrio cholera*. [Read more](#)

### Targeted induction of a silent fungal gene cluster encoding the bacteria-specific germination inhibitor fumigermin

Axel Brakhage, Christian Hertweck and colleagues | eLife | 21 Feb 2020

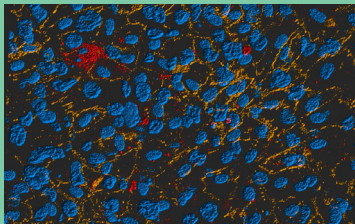
The fungal metabolite fumigermin was identified upon interaction between *Aspergillus fumigatus* and *Streptomyces rapamycinicus*, helping the fungus to defend resources against a bacterial competitor. [Read more](#)



### Mining symbionts of spider-transmitted fungus illuminates uncharted biosynthetic pathways to cytotoxic benzolactones

Christian Hertweck and colleagues | Angew Chem Int Ed | 10 Feb 2020

A spider-transmitted fungus isolated from necrotic human tissue harbors endobacteria that produce cytotoxic necroximes. Identification of the biosynthetic pathway enables bioengineering and genome mining approaches. [Read more](#)



### Co-infection with *Staphylococcus aureus* after primary influenza virus infection leads to damage of the endothelium in a human alveolus-on-a-chip model

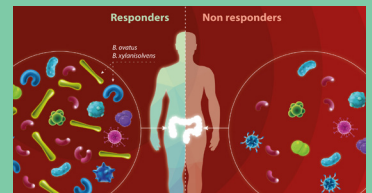
Alexander Mosig, Bettina Löffler, Marc Thilo Figge and colleagues | Biofabrication | 19 Feb 2020

An immune-responsive *in vitro* alveolus model system was developed, enabling spatiotemporal analyses of *S. aureus* infections and mechanistic studies of host-pathogen interactions. [Read more](#)

### Predictable modulation of cancer treatment outcomes by the gut microbiota

Gianni Panagiotou and colleagues | Microbiome | 5 Mar 2020

Differences in gut microbiome composition and diversity were found between patients responding to cancer treatment compared to non-responders. A machine-learning model predicting treatment outcomes was developed. [Read more](#)



### Environmental selection shapes the formation of near-surface groundwater microbiomes

Kirsten Küsel and colleagues | Water Research | 1 Mar 2020

A three-year observation at the Hainich Critical Zone Exploratory showed that surface and subsurface conditions, flow regime and related habitat accessibility are important factors for groundwater microbiome assembly. [Read more](#)

## FINANCIAL INCENTIVE FOR JOINT PUBLICATIONS

The Microverse Cluster seeks to encourage cross-disciplinary collaborations between research groups. For high-impact publications involving two or more groups, each Microverse PI on the publication will receive 2.000 €. Selected journals only (IF>7) and funding from the Microverse Cluster must be acknowledged.

## THURINGIA FUNDS RESEARCH INFRASTRUCTURE FOR MICROVERSE

The Free State of Thuringia has approved two funding applications by the Microverse Cluster, for a 3D nano-printing system and for additional IT infrastructure. The nanoprinter can build 3D scaffolds, using different bio-compatible materials down to 150 nm resolution, to be used in microfluidic chips, microbial arenas and to enhance optical detection. It will be bought this year and made accessible to Cluster members at the Leibniz IPHT. Secondly, high-throughput experiments and collaborative projects reach a new dimension in terms of data volume and processing. The Leibniz HKI will extend its data storage capacities and servers for high performance computing for its experimental and systems biology groups.

## NEW EXPERTISE FOR OUR CLUSTER



We welcome our new Microverse members Kai Papenfort, Professor for General Microbiology, and Christian Jogler, Professor for Microbial Interactions. They will complement our Microverse research with their expertise in bacterial gene regulation and quorum sensing in human pathogens, as well as microbiomes of marine and freshwater sponges as potential sources for new antibiotics.

## INFORMATION ON CORONAVIRUS SARS-COV-2

The coronavirus pandemic is providing us with major challenges. A warm THANK YOU to the doctors and colleagues involved in patient care and testing. We wish all our Microverse members, their families and friends all the best and stay well!

- Find latest articles on [PubMed literature hub on Corona](#) and [The Lancet COVID-19 Resource Centre](#)
- medRxiv and bioRxiv provide [Preprints on Corona](#)
- ZB MED has compiled literature, data sets and bioinformatics tools for molecular biology researchers at the [ZB MED COVID-19 HUB](#)
- Colleagues from FSU and the Jena University Hospital found alternative buffer solutions, allowing for increased Corona testing capacities. [Read more](#)
- [Daily Corona Podcasts](#) with Christian Drosten (NDR Info, in German)

# THE MICROVERSE

Vol. 06

[www.microverse-cluster.de](http://www.microverse-cluster.de)

Jena | 06/2020

## MICROVERSE I SYMPOSIUM GOES DIGITAL

Our Microverse I Symposium will take place as an online conference in September 2020. In addition to oral presentations, we will have round table discussions, break-out rooms, and a poster session in a virtual format. If regional restrictions allow for gatherings in September, we may consider a mixed format with local participants. We are inviting abstract submissions until July 7. Please visit [www.microverse-conference.de](http://www.microverse-conference.de).

## NEW MICROVERSE JUNIOR RESEARCH GROUPS

We extend a warm welcome to Amelia Barber (Leibniz-HKI) and Martin Taubert (FSU) who will each start their own junior research group within our Microverse Cluster. Amelia Barber will use computational and experimental approaches to understand how ecological interactions shape human pathogenicity in fungi. Martin Taubert will focus on targeted 'fishing' for microbial interaction partners, especially within the Candidate Phyla Radiation of largely uncultivable bacteria. We will support them in building their own junior research group, and wish them lots of success with this significant career step.



## WEBINARS, WORKSHOPS AND MORE

**WEBINAR ON COVID-19, THE INFODEMIC & COMPLIANCE TO LOCKDOWNS:** The communication of science and its understanding by the general public and political leaders is critically important in guiding the response to the COVID-19 pandemic and achieving compliance to control measures. However, we also live in a time rife with conspiracy theories and largely unchecked proliferation of mis-information online. In a one hour webinar we explore this tension with [Prof. Stuart Neil](#) (Virology, King's College London), [Dr. Elizabeth Watts](#) (Didactics of Biology, FSU Jena) and [Prof. Benjamin van Rooij](#) (Law and Society, University of Amsterdam). The webinar takes place on June 18, at 4 pm (register via [contact@microverse-cluster.de](mailto:contact@microverse-cluster.de)).

The **HALF-DAY ONLINE WORKSHOP "On the Way to FAIR Data: Tales from the Road"**, organized by the FSU Research Data Management Helpdesk, takes place on June 30. More information and registration [here](#).

The **Zeiss Microscopy Symposium** and imaging experiments at ZEISS Microscopy are currently planned for November 2020. Details will be communicated shortly.

The **Mittelerde Meeting** - 5<sup>th</sup> Central German Meeting on Bioinformatics, originally planned for June 2020, had to be postponed and will now take place in the first half of 2021.

## NEW OPEN ACCESS JOURNAL: microLife

microLife is a new open access journal from EAM and FEMS, publishing research articles, short reviews and commentaries of the highest standard, significance and novelty in microbiology and related disciplines. Editors-in-chief are Axel Brakhage, Carmen Buchrieser, Matthias Horn and Paula Traktman. More information on the journal and submissions [here](#).

## INFORMATION IN A NUTSHELL

**WE ARE LOOKING FOR EARLY CAREER REPRESENTATIVES:** Are you interested in representing the needs and wishes of the early career researchers at our Cluster board meetings, and in organizing social and scientific events for your colleagues, particularly for Postdocs? Contact [angela.koehler@microverse-cluster.de](mailto:angela.koehler@microverse-cluster.de).

**HOW ACKNOWLEDGE MICROVERSE FUNDING:** Please use the following wording and Project-ID, as requested by the DFG: "Funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under Germany's Excellence Strategy - EXC 2051 - Project-ID 390713860"

## NEW PROFESSOR FOR THE MICROVERSE CLUSTER



We are happy to announce that **Ute Hellmich**, currently at the University of Mainz, has accepted the appointment to the W3 professorship **Biostructural Interactions** at FSU Jena, one of our four new professorships within the Microverse Cluster. She plans to start in Jena in January 2021. We are looking forward to welcoming her in our Microverse consortium and to fruitful collaborations!

## PROGRAM FOR MICROVERSE I SYMPOSIUM NOW ONLINE

We are excited to present to you the program of our Microverse I Symposium, 1<sup>st</sup> - 3<sup>rd</sup> of September 2020: 30 Talks, 44 Posters, round table discussions - all in an online format. Visit [www.microverse-conference.de](http://www.microverse-conference.de) to view the program. We invite you to register [online](#) until 25<sup>th</sup> of August.

## SOME RECENT PAPERS BY MICROVERSE MEMBERS

Send us your new publications to share with the Microverse community: [contact@microverse-cluster.de](mailto:contact@microverse-cluster.de)

### Flotillin-dependent lipid-raft microdomains are required for functional phagolysosomes against fungal infections

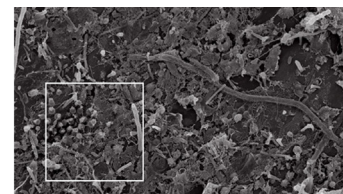
Christian Eggeling, Marc Thilo Figge, Axel Brakhage and colleagues | Cell Reports, accepted

This study provides mechanistic insight into the regulation and formation of lipid rafts, elucidates a role for lipid raft-based signaling in regulation of phagosome biogenesis and reports a new molecular virulence mechanism *via* the disruption of lipid-raft microdomains. [Read more](#)

### The microbiome of *Posidonia oceanica* seagrass leaves can be dominated by Planctomycetes

Christian Jogler and colleagues | Frontiers in Microbiology | 10 July 2020

Besides the high ecological and climatic importance of seagrass meadows, its leaf surface bacterial community was found to be dominantly colonized (>80%) by Planctomycetes. Two novel strains of this phylum could be obtained using cultivation techniques. [Read more](#)



### Single-cell bacterial transcription measurements reveal the importance of DMSP hotspots in ocean sulfur cycling

Georg Pohnert and colleagues | Nature Communications | 23 Apr 2020

This study offers direct evidence that higher ambient concentration of dimethylsulfoniopropionate e.g. in microscale hotspots at the vicinity of phytoplankton cells, upregulates the relative bacterial production and release of dimethylsulfide. This compound builds cloud condensing nuclei, which can affect the biogeochemical cycle and the global climate. [Read more](#)

## MICROVERSE & JSMC COMMUNICATIONS TEAM

The Microverse Cluster acknowledges the important role of science for society and therefore encourages its members to communicate their research to the public. We have established a Communications Team to push forward the creative and innovative science communication of our Cluster research. Team members are: Matt Agler, Alena Gold, Hendrik Huthoff, Teresa Mayer, Pooja Mehta, Martin Taubert and Wolfgang Vivas. Find more information on the Comms Team on our Intranet. If you are interested in joining the team, we are always happy to welcome new members! Contact [alena.gold@microverse-cluster.de](mailto:alena.gold@microverse-cluster.de)

## NEW POSTDOC REPRESENTATIVES FOR MICROVERSE

The Postdocs of our Cluster have elected Anne Busch and Silvia Radosa (Deputy) to represent their interests at the Cluster board meetings and facilitate exchange within the Postdoc community.

## VIRTUAL MICROBIAL TALK

The [Microverse I Symposium](#) on microbial and biomolecular interactions with 230 participants was a great success. The Microverse Cluster, the two CRCs ChemBioSys and AquaDiva and the consortium InfectControl took up the challenge to organize this three-day online conference with 30 invited speakers, many poster presentations and several round table discussions.

Axel Brakhage concludes: "We are pleased that we were able to exchange the latest findings on microbial communication, environmental and host microbiomes in this online format". Many thanks to all members of the Cluster who have contributed to this symposium!



## UPCOMING SUBGROUP MEETINGS

### Organ-on-chip

Coordinated by [Thilo Figge](#)  
October 12<sup>th</sup> at 10.00-12.30  
Zoom-Meeting

### Plant microbiomes

Coordinated by [Matthew Agler](#)  
November 27<sup>th</sup> at 14.00-15.00  
Zoom-Meeting

Interested colleagues from other subgroups are welcome to join. Please contact the coordinators in advance.

## SOME RECENT PAPERS BY MICROVERSE MEMBERS

Send us your new publications to share with the Microverse community: [contact@microverse-cluster.de](mailto:contact@microverse-cluster.de)

### Antibiotics create a shift from mutualism to competition in human gut communities with a longer-lasting impact on fungi than bacteria

Gianni Panagiotou, Bernhard Hube and colleagues | Microbiome | 12 Sep 2020

Antibacterial drugs have a long-term influence on the human gut mycobiome, reducing bacterial-fungal interactions and driving fungal communities from mutualism to competition. [Read more](#)

### Influence of carbon sources on quantification of deuterium in heterotrophic bacteria: a raman-stable isotope labeling approach

Jürgen Popp, Kirsten Küsel, Martin Taubert and colleagues | Analytical Chemistry | 18 Aug 2020

The differentiation between active and inactive bacteria at single cell level was improved by Raman-deuterium labeling coupled with chemometrics. [Read more](#)

### Gene autoregulation by 3' UTR-derived bacterial small RNAs

Kai Papenfort and colleagues | eLife | 03 Aug 2020

We discovered a new mechanism of autoregulation during gene expression in bacteria that relies on small regulatory RNAs and the major endoribonuclease RNase E. [Read more](#)

### Lichen-like association of *Chlamydomonas reinhardtii* and *Aspergillus nidulans* protects algal cells from bacteria

Maria Mittag, Christian Hertweck, Axel A. Brakhage and colleagues | ISME J | 23 Jul 2020

The mold fungus *Aspergillus nidulans* attracts the motile green alga *Chlamydomonas reinhardtii* and protects it from the algicidal compound azalomycin F secreted by the bacterium *Streptomyces iranensis*. [Read more](#)

## GNOTOBIOTIC MOUSE FACILITY

The mammalian intestinal microbiota consists of various microorganisms which shape the host physiology and immunology. The complexity of microbiota composition and interaction between its members and the host impede the determination of mechanisms and consequence of distinct interactions. One solution to this problem is gnotobiology, the use of animals with a defined microbiological state. Within our Microverse Cluster, we are now opening the Gnotobiotic Mouse Facility at the Leibniz-HKI. For more information, contact Alessia Montesano, the head of the gnotobiotic facility: [alessia.montesano@leibniz-hki.de](mailto:alessia.montesano@leibniz-hki.de).



## MICROVERSE RESEARCH DATA MANAGEMENT

Coordinated by Birgitta König-Ries and Christoph Steinbeck, the research data management (RDM) team includes Luiz Gadelha (Postdoc RDM) and Martin Hohmuth (Software engineer), and collaborates with Roman Gerlach (RDM Helpdesk) and Maria Sorokina (CRC ChemBioSys). They will work closely with the Microverse subgroups to elaborate upon the data management plans to describe:

- which data will be collected;
- which formats or standards will be used for these data;
- which metadata will be provided and in which standard or format;
- what are the policies for data usage and sharing;
- how data will be stored and how it will be preserved in the long term

An integrative RDM system will be designed and implemented to allow for the data produced in the Cluster to follow the FAIR (Findability, Accessibility, Interoperability, Reusability) principles. Please contact Luiz Gadelha for RDM matters and please invite him to your subgroup meetings: [luiz.gadelha@uni-jena.de](mailto:luiz.gadelha@uni-jena.de)

## MENTAL HEALTH DAY 2020 WEBINAR SERIES

In the run up to International Mental Health Day on October 10<sup>th</sup>, the JSMC is offering a series of short daily webinars covering several aspects of mental health in the week of the 5<sup>th</sup> to the 10<sup>th</sup> of October. Registration is not required - more information is available [on the website](#).

## ZEISS MICROSCOPY WORKSHOP

The Zeiss Microscopy Workshop at the Volksbad Jena has been re-scheduled to **November 24<sup>th</sup>**. Program and registration links are available on the intranet. Important note: We ask you to **register again until November 1<sup>st</sup>**; even if you have already registered for the event in April. For further information contact Aurélie Jost, the head of the Microverse Imaging Center: [aurelie.jost@uni-jena.de](mailto:aurelie.jost@uni-jena.de).

# THE MICROVERSE

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[www.microverse-cluster.de](http://www.microverse-cluster.de)

Jena | 11/2020

## SUBGROUP COORDINATOR MEETING ON DECEMBER 16<sup>TH</sup>

Within its three Research Areas, the Microverse Cluster is structured in seven project groups: *Functional lung microbiome, Structured surface complexity, Groundwater & plankton communities, Plant microbiomes, Gut microbiome/critically ill patients, Gut-on-chip, Imaging vision room.*

You meet regularly within your subgroups to update each other on the current results and challenges. Do you see parallels to other groups, any needs and wishes that you would like to communicate to the other groups? Please discuss the latest developments and needs with your subgroup coordinator. The coordinators will then get together (online) on December 16<sup>th</sup> to present the progress, interlink the different groups, communicate needs/wishes and discuss synthesis formation in the Cluster. First outcomes from this meeting will be communicated in the general assembly.

## MICROVERSE GENERAL ASSEMBLY ON DECEMBER 17<sup>TH</sup>

Save-the-date: Our annual Microverse general assembly will take place online on Thursday, December 17<sup>th</sup>, from 10.00 to 11.00. We will, amongst other things, discuss the internal evaluation of our postdoctoral and doctoral research projects in the Cluster and plans for the coming year. The agenda and login details to the meeting will be sent in time.



## 3D NANOPRINT HAS ARRIVED

The Free State of Thuringia has funded a 3D nano-printing system for the Microverse-Cluster. The nanoprinter can build 3D scaffolds, using different bio-compatible materials down to 150 nm resolution, to be used in microfluidic chips, microbial arenas and to enhance optical detection. The new device is now accessible to Cluster members at the Leibniz IPHT. Please contact [Angela Köhler](#) if you would like to discuss applications for your project.

## MICROBIAL ART



Microscopic images of microorganisms provided by our Cluster members are displayed at the exhibition „What is nature?“ at the contemporary art Museum Sinclair Haus until January 24<sup>th</sup>, 2021. Find more information on the [webpage](#) of the museum. Pictures with more impressions are available on our [Intranet](#).

## ZEISS MICROSCOPY WORKSHOP CANCELLED

Due to the increasing Corona infections, the Zeiss Microscopy Workshop, planned for 24<sup>th</sup> November had to be cancelled. An online format is not suitable for this workshop. We hope to organize the workshop as a face-to-face event in autumn next year.

## IN A NUTSHELL

**Job offers:** The Microverse Cluster is offering 3 doctoral researcher positions and 1 technical assistant position. Please spread the word to interested colleagues. The job ads can be found on the [Microverse webpage](#).

**Interested in further training and continuing education?** Check out the [FSU Qualifications Portal](#) where you can find current coaching and course offers for the University's research and teaching staff and for early career researchers, e. g. Coaching for International Postdocs, Project management, Leadership development, courses related to research funding and transfer, and many more.

**Friday lunch time meetings of the Microverse postdocs** - The postdocs of the Microverse Cluster are getting together online every first Friday of the month to network and exchange their ideas in a lunchtime seminar. Please contact our postdoc representative [Anne Busch](#) if you are interested in joining these meetings.



## SOME RECENT PAPERS BY MICROVERSE MEMBERS

Send us your new publications to share with the Microverse community: [contact@microverse-cluster.de](mailto:contact@microverse-cluster.de)

### Metabolomics-derived marker metabolites to characterize *Phaeocystis pouchetii* physiology in natural plankton communities

Georg Pohnert and colleagues | Scientific Reports | 24 Nov 2020

*Phaeocystis pouchetii* regularly dominates phytoplankton blooms and is considered to be a key resource for the marine food web. This study shows how the variable physiology of phytoplankton can alter the metabolic landscape of entire plankton communities. [Read more](#)

### Data integration for prediction of weight loss in randomized controlled dietary trials

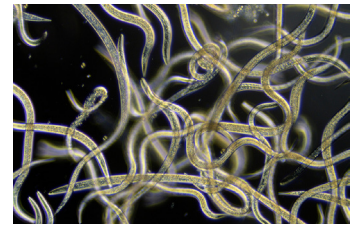
Christina Warinner and colleagues | Scientific Reports | 18 Nov 2020

Weight loss prediction models using features like gut bacterial species, diet and urine metabolites have a higher prediction ability than diet-only models, which will be useful for weight management strategies. [Read more](#)

### Symbiosis, virulence and natural-product biosynthesis in entomopathogenic bacteria are regulated by a small RNA

Kai Papefort and colleagues | Nature Microbiology | 02 Nov 2020

An obligatory symbiosis between bacteria of the genera *Photorhabdus/Xenorhabdus* and nematodes favors the production of secondary metabolites as toxins against insect larvae. This study shows that the formation of these secondary metabolites might be strongly regulated by the sRNA "ArcZ". [Read more](#)



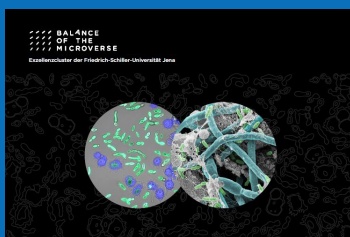
### The importance of airway and lung microbiome in the critically ill

Michael Bauer and colleagues | Critical Care | 31 Aug 2020

Dysbalance of the microbiome, triggered by antibiotic use, diet changes or inflammation seems to be involved in immunological responses and a consequence of critical illness. This review focuses on the current evidence for a pathogenic role of the lung microbiome in the exacerbation of complications of critical illness. [Read more](#)

**Please acknowledge the Microverse Cluster using the following wording and Project-ID:** "Funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under Germany's Excellence Strategy - EXC 2051 - Project-ID 390713860"

## MICROVERSE BROCHURE



We are preparing to publish a first brochure presenting our Microverse Cluster. Aimed at the interested public and stakeholders in politics, research and economy, it introduces our research topics and researchers. The brochure summarises the milestones of the past two years, shows research highlights and includes an interview with Axel Brakhage, talking about his vision for the Microverse. It is available in German and English. If you would like to have printed copies for distribution, contact [alena.gold@microverse-cluster.de](mailto:alena.gold@microverse-cluster.de).

## SAVE-THE-DATE: ONLINE MICOM2021 ON MARCH 29<sup>TH</sup>-31<sup>ST</sup>, 2021

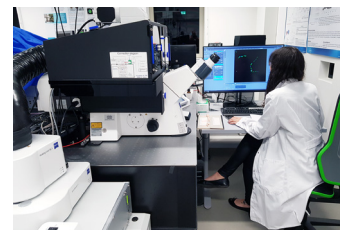
We are happy to announce that the MiCom2021 - the 8<sup>th</sup> International Conference on Microbial Communication for Young Scientists - will take place on March 29<sup>th</sup> - 31<sup>st</sup>, 2021 as an online event. Chaired sessions with keynote lectures and workshops in the research areas of Chemical Ecology, Environment, Natural Products, Pathogenesis and Systems Biology will foster inspiring discussions between experts and young scientists. Detailed information will follow soon [here](#).

## EXTENSION OF PHD AND POSTDOC PROJECTS DUE TO COVID-19

All JSMC and Microverse funded doctoral and postdoctoral projects can apply for an extension of personnel funding of up to 3 months to compensate for restrictions caused by the COVID-19 pandemic and the lockdown. At this stage we will consider those projects terminating in 2021 only. All eligible members have been informed via mail. Please use the provided form ([intranet](#)) and return to [office@jsmc.info](mailto:office@jsmc.info)

## STATE-OF-THE-ART IMAGING TO EXPLORE THE MICROVERSE

Our Microverse Imaging Center provides and advances biomedical imaging technologies at high spatio-temporal resolution. Two fluorescence microscopes are located at the FSU Zentrum für Angewandte Forschung (ZAF) at biosafety level 2. We have submitted a 91b application for a new Multiphoton microscope for our facility. We thank Christian Eggeling for hosting the microscopes in his laboratories and supporting the imaging activities and funding applications for new microscopes!



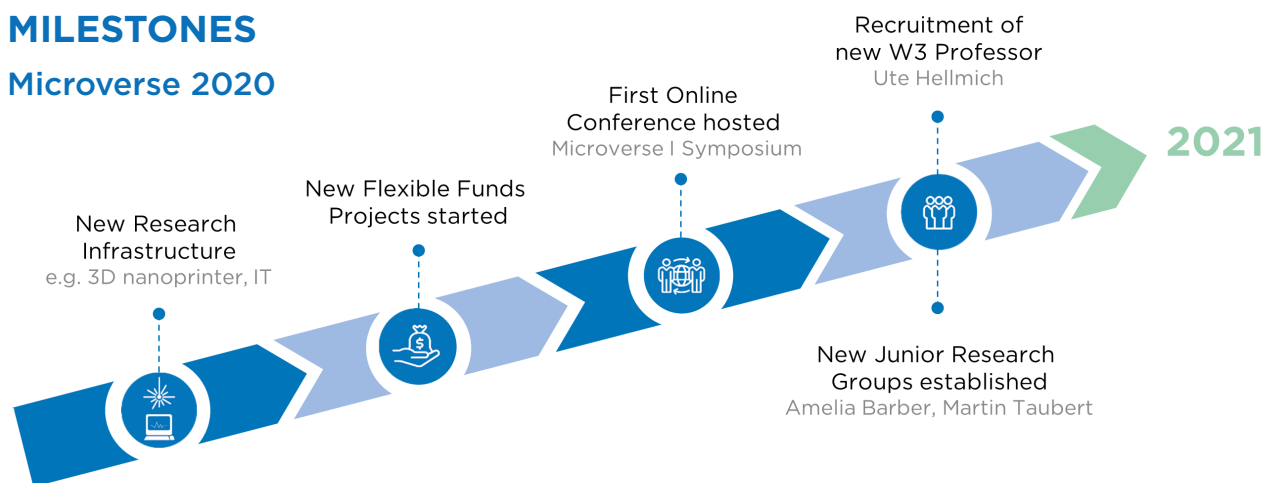
Please contact [Dr. Aurélie Jost](#), Head of the Microverse Imaging Center, to discuss your imaging needs. The team around Christian Eggeling and Aurélie Jost will soon be expanded by a microscope manager. We were also successful in obtaining funding from the Free State of Thuringia for a new Raman microscope, to be bought next year.

## A LOOK BACK ON 2020

It was a challenging, yet eventful second year for the Microverse Cluster: The COVID-19 pandemic has considerably affected our lives and research work this year. Despite all this, we can also look back on successful events and new developments. We recruited our first new W3 professor within the Cluster, Ute Hellmich, and have started several new Flexible Funds projects. Two early career researchers, Amelia Barber and Martin Taubert, are transitioning to their own junior research group. We have hosted our first international conference together with ChemBioSys, AquaDiva and InfectControl. Last but not least, we have further expanded our research infrastructure, e.g. with a new 3D nanoprinter and computing infrastructure.

### MILESTONES

#### Microverse 2020



We wish you all a Merry Christmas & a happy, healthy and successful New Year! Stay well.

