Bast Lab



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Welcome

You have recently joined the Bast Lab at the University of Cologne. That's great! We're really glad to have you here, and will do what we can to make your time in the lab amazing. We hope you'll learn a lot about biology, develop new skills (animal handling, coding, data analysis, writing, giving talks), make new friends, and have a great deal of fun throughout the whole process.

This lab manual copies and borrows heavily from this manual. It's also a work in progress. If you have ideas about things to add, or what to clarify, talk to me (Jens, the PI).

When you join the lab, you're expected to read this manual and <u>sign a form</u> indicating that you have done so.

Expectations and responsibilities

Everyone

Big Picture

- Science is hard. But it's also fun. In the Bast Lab, we want to make sure that everyone
 experiences a positive, engaging, hostility-free, challenging, and rewarding lab
 environment. To maintain that environment, we all have to do a few things.
- Work on what you're passionate about, work hard at it, and be proud of it. Be so proud of it that you have to suppress bragging (but it's ok to brag sometimes).
- Scientists have to be careful. Don't rush your work. Think about it. Implement it.
 Double and triple check it. Incorporate sanity checks. Ask others to look at your code
 or data if you need help or something looks off. It's ok to make mistakes, but
 mistakes shouldn't be because of carelessness or rushed work.
- If you do make a mistake, you should definitely tell your collaborators (if they have already seen the results, and especially if the paper is being written up, is already submitted, or already accepted). We admit our mistakes, and then we correct them and move on.
- We all want to get papers published and do great things. But we do this honestly. It is never ok to plagiarize, tamper with data, make up data, omit data, or fudge results in any way. Science is about finding out the truth, and null results and unexpected results are still important. This can't be emphasized enough: no academic misconduct!
- Support your fellow lab-mates. Help them out if they need help (even if you aren't on the project), and let them vent when they need to. Science is collaborative, not competitive. Help others, and you can expect others to help you when you need it.

- Respect your fellow lab-mates. Respect their strengths and weaknesses, respect their desire for quiet if they need it, and for support and a kind ear when they need that. Respect their culture, their religion, their beliefs, their sexual orientation.
- If you're struggling, tell someone (feel free to tell Jens!). Your health and happiness come first. The lab looks out for the well-being of all its members. We are here to help. It's ok to go through hard patches (we all do), but you shouldn't feel shy about asking for help or just venting.
- If there is any tension or hostility in the lab, something has to be done about it immediately. We can't thrive in an environment we aren't comfortable in, and disrespect or rudeness will not be tolerated in the lab. If you don't feel comfortable confronting the person in question, tell Jens. In any case, tell Jens.
- If you have a problem with Jens and are comfortable telling him about it, do! If you aren't comfortable, then tell another member of the lab (for small issues) or a member of the biology department (for larger issues).
- Stay up to date on the latest research, by using RSS feeds and/or getting journal table of contents. Also consider following scientists in the field on Twitter.
- Have a life outside of the lab, take care of your mental and physical health, and don't ever feel bad for taking time off work.

Small Picture

There are a few day-to-day things to keep in mind to keep the lab running smoothly.

- If you're sick, stay home and take care of yourself. Because you need it, and also because others don't need to get sick. If you're sick, reschedule your meetings and experiments for the day (or the next couple of days) as soon as you can.
- You aren't expected to come into the lab on weekends and holidays, and you aren't
 expected to stay late at night. You are expected to get your work done (whatever time
 of day you like to do it).
- Show up to your meetings, and show up to lab meetings. You do not have to be in at 9am every day – just show up for your commitments, and work the hours you need to work to get stuff done.
- Make sure the door to the lab and office is locked if no one is inside. Turn off the lights if you're the last one leaving for the day.
- Keep the lab and office tidy. Eating in the office is fine, but clean up food waste, crumbs, spills. Put lab equipment back where you found it. Keep common areas uncluttered.
- Be on time for your meetings: respect that others have packed days and everyone's time is valuable.

Principal Investigator

All of the above, and I promise to also...

- Support you (scientifically, emotionally, financially)
- Give you feedback on a timely basis, including feedback on project ideas, conference posters, talks, manuscripts, figures, grants

- Be available in person and via email on a regular basis, including regular meetings to discuss your research (and anything else you'd like to discuss)
- Give my perspective on where the lab is going, where the field is going, and tips about surviving and thriving in academia
- Support your career development by introducing you to other researchers in the field, promoting your work at talks, writing recommendation letters for you, and letting you attend conferences and workshops as often as finances permit
- Help you prepare for the next step of your career, whether it's a post-doc, a faculty job, or a job outside of academia
- Care for your emotional and physical well-being, and prioritize that above all else

PostDocs

All of the above, and you will also be expected to...

- Develop your own independent line of research
- Help train and mentor students in the lab (both undergraduate and graduate) when they need it – either because they ask, or because I ask you to
- Present your work at departmental events, at other labs, and at conferences
- Apply for grants (e.g., DFG). Though I will only hire you if I can support you for at least one year, it's in your best interest to get experience writing grants – and if you get them, you'll be helping out the entire lab as well as yourself (because you'll free up funds previously allocated to you)
- Apply for jobs (academic or otherwise) when you're ready, but no later than the beginning of your 4th year of post-doc. If you think you'd like to leave academia, that's completely okay – but you should still treat your post-doc seriously, and talk to me about how to best train for a job outside academia
- Challenge me (Jens) when I'm wrong or when your opinion is different, and treat the rest of the lab to your unique expertise

Graduate Students

All of the above, and you will also be expected to...

- Develop your dissertation research. Your dissertation should have at least three substantial papers that answer a big-picture question that you have. Much of your work has to be done independently, but remember that others in the lab (especially Jens!) are there to help you when you need it
- Help mentor undergraduate students in the lab when they need it either because they ask, or because I ask you to. Undergrads can also help you collect data.
- Present your work at departmental events, at other labs, and at conferences
- Apply for grants (e.g., DFG). It's a valuable experience, and best to get it early.
- Think about what you want for your career (academia research or teaching, industry, science writing, something else), and talk to Jens about it to make sure you're getting the training you need for that career
- Make sure you meet all departmental deadlines (e.g., for your exams and thesis) -- and make sure Jens is aware of them!

• Prioritize time for research. Coursework and TAing are important, but ultimately your research gets you your PhD and prepares you for the next stage of your career.

Undergraduate Students

All of the above, and you will also be expected to...

- Assist other lab members with experimentation, data collection and analysis (unless
 you are working on your own independent project under the mentorship of another
 lab member, in which case you should work on that)
- Develop your weekly schedule by talking to your graduate student mentor or your post-doc mentor. You should be coming in every week, and scheduling enough time to get your work done
- You must also attend lab meetings when your schedule permits and present at one of these lab meetings

Code of Conduct

Essential Policies

The lab, and the university, is an environment that must be free of harassment and discrimination. All lab members are expected to abide by the University of Cologne policies on discrimination and harassment, which you can (and must) read about here. How to proceed when help is needed can be found here.

The lab is committed to ensuring a safe, friendly, and accepting environment for everybody. We will not tolerate any verbal or physical harassment or discrimination on the basis of gender, gender identity and expression, sexual orientation, disability, physical appearance, body size, race, or religion. We will not tolerate intimidation, stalking, following, unwanted photography or video recording, sustained disruption of talks or other events, inappropriate physical contact, and unwelcome sexual attention. Finally, it should go without saying that lewd language and behavior have no place in the lab.

If you notice someone being harassed, or are harassed yourself, tell Jens immediately. If Jens is the cause of your concern, then reach out to the department chair or another trusted faculty member in the department.

Scientific Integrity

Research (Mis)conduct

The lab, and the University of Cologne, is committed to ensuring research integrity, and we take a hard line on research misconduct. We will not tolerate fabrication, falsification, or plagiarism. Read about the code of conduct <u>here</u> and about the scientific integrity <u>here</u>.

A big problem is why people feel the need to engage in misconduct in the first place, and that's a discussion that we can have. If you are feeling pressured to succeed (publish a lot, publish in high impact journals), you should reach out to Jens and we can talk about it – but this pressure is something we all face and is never an excuse to fabricate, falsify, or plagiarize. Also, think about the goal of science and why you are here: you're here to arrive at the truth, or at least to get as close as we can. Not only is research misconduct doing you a disservice, it's also a disservice to the field. And it risks your entire career. It is never right and never worth it. Don't do it.

Reproducible Research

If you gave someone else your raw data, they should be able to reproduce your results exactly. This is critical, because if they can't reproduce your results, it suggests that one (or both) of you has made errors in the analysis, and the results can't be trusted. Reproducible research is an essential part of science, and an expectation for all projects in the lab.

For results to be reproducible, the experiments and analysis pipelines must be organized and well documented. To meet these goals, you should take extensive notes on each step. This means writing down how you did things every step of the way (and the order that you did things), e.g. from any pre-processing of the data, running models, to statistical tests. It's also worth mentioning that you should take detailed notes on your experimental design as well. Additionally, your lab-book notes and code should also be commented, and commented clearly. We all know what it's like to sit down, quickly write a bunch of code to run an analysis without taking time to comment on it, and then having no idea what we did a few months down the road. Comment so that every step is understandable by an outsider. Finally, it is highly encouraged (and mandatory!) that you use some form of version control (e.g., Git in combination with GitHub) to keep track code changes, as well as sharing code with others. The lab's GitHub is https://github.com/TheBastLab.

Moreover, all notes taken during experimental work in the lab (you lab-book) should be digitized to be accessible using e.g GoogleDocs.

Reproducibility is related to replicability, which refers to whether your results can be obtained again with a different data set. That is, if someone ran your study again (with a different group of participants), do they get the same results? If someone ran a conceptually similar study, do they get the same results? Science grows and builds on replicable results – one-off findings don't mean anything. Our goal is to produce research that is both reproducible and replicable.

Authorship

Like other labs, we will follow these authorship <u>guidelines</u> (read them) based on <u>McNutt</u> <u>2018 et al.</u>:

"Each author is expected to have made substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data; or the creation of new software used in the work; or have drafted the work or substantively revised it ..."

At the start of a new project, the student or post-doc taking on the lead role can expect to be first author (talk to Jens about it if you aren't sure). Jens will typically be the last author, unless the project is primarily under the guidance of another PI and Jens is involved as a secondary PI. Students and post-docs who help over the course of the project may be added to the author list depending on their contribution, and their placement will be discussed with all parties involved in the paper. If a student or post-doc takes on a project but subsequently hands it off to another student or post-doc, they will most likely lose first-authorship to that student or post-doc, unless co-first-authorship is appropriate. All of these issues will be discussed openly, and you should feel free to bring them up if you are not sure of your authorship status or want to challenge it.

Old projects

If a student or post-doc collects a dataset but does not completely analyze it or write it up within 3 years after the end of data collection, Jens will re-assign the project (if appropriate) to another person to expedite publication. If a student or post-doc voluntarily relinquishes their rights to the project prior to the 3-year window, Jens will also re-assign the project to another individual. This policy is here to prevent data (especially expensive data) from remaining unpublished, but is meant to give priority to the person who collected the data initially.

Lab organization and resources

The lab has in addition to good old face-to-face meetings several ways to communicate and organize ideas and tasks, as well as digital ways to document experiments and code. Access to all platforms are given by Jens (and others).

Communication and organization

Wiki

The <u>lab wiki</u> is under construction. With your help, it will have all the information you need to get started, including tasks that need to be done upon arrival, day-to-day housekeeping duties, forms and flyers, programming and stats tips, lab protocols, information about accessing the high-performance computing cluster and lab servers and file organization. Edit it when you obtain information that will be useful for others to know!

Slack

<u>Slack</u> will be used as the primary means of lab communication.

When posting messages or looking for updates, check the appropriate channel: #general for lab announcements, #lab-meetings for notes or communication related to lab meetings, #papers for sharing links to lab-relevant papers and discussing them, #code-tips for sharing wisdom on code writing or asking (and answering) the coding questions of others, #methods for sharing and discussing lab protocols and data analysis, #stats to ask and answer questions about statistical analyses, and #random for non-work-related chatting that is best kept out of the work-related channels.

Try to keep each channel on topic, so that people can subscribe only to the channels that concern them. For messages to one person or a small group, use direct messages. If you have to send attachments (e.g., papers) or send messages that include out-of-lab recipients, use email. If it's an emergency and Jens isn't responding on Slack, email him.

Full-time lab members should install Slack on their computers and/or phones. Part-time lab members should also check Slack regularly. You should of course feel free to ignore Slack on evenings and weekends – and Jens probably will, too!

Calendar

The <u>Bast Lab calendar</u> is used to keep track of lab events, including any lab meetings just for our lab, and birthdays! It is also used to indicate travel and holiday dates (e.g., "Jens away" for August 1-7), so that other people know when you aren't available. You are not obligated to put down your travel dates, but they are useful for planning purposes (e.g., Jens will know not to bother with lab meetings if no one is around; or if he is writing a grant, it helps to know if you will or won't be available to provide data, etc).

Trello

The <u>Trello lab organizer</u> is used for project and lab management purposes. This provides an overview of projects, lab organization, upcoming conferences and workshops and so on. It will remind us of all things that have to be done and by whom. Additionally, this can be used to collect a wish- and shopping list for lab and office equipment needed.

Maps for sampling spots

These <u>custom google maps</u> will be used to pinpoint sampling spots and other information, so we do not ever forget, where and when we sampled animals or where the good spots are.

Docs for writing manuscripts

To write papers, Jens will use GoogleDocs and GoogleSheets and you are encouraged to do so too. This has the big advantage, that comments and edits from multiple people can be easily seen and the version history can be accessed at all times. It works perfectly well with the integrated <u>Paperpile</u> reference management tool.

Github

The <u>lab's GitHub</u> should be used to share code, and data with the world. Only share data after you've spoken to Jens (we don't want to share the data too soon, before you've had a chance to look at it thoroughly yourself). When you share code, make sure it's flawless, because we don't want to distribute buggy code to the world! Have other lab members check it if possible. Be aware that this is only meant for scripts and small files for analyses and not for uploading (genomic) data. The data can be put in temporary folders that are not synced with github. Ask others how to use github and check the wiki for more information.

Cloud storage

The lab Dropbox (or Sciebo) is also used to store documents and files for general lab use (e.g., protocols, travel forms, etc), though the lab wiki will also have that information. Please

be aware that this is meant for small data. For backup purposes, use our lab server or other services provided by the University.

Servers and Laboratories

Computation and data management

We deal with substantial amounts of genomic data and their computational processing (a good portion of our time is spent shouting at computers). To help smooth the process, we can use the lab server(s) and computational clusters at the RRZK. To be sure that everything runs smoothly, it is mandatory to consult the <u>wiki pages</u> and RRZK pages about server usage and to obey the rules. Only use the servers after you have the okay of Jens.

Rules for the lab server(s) usage are (short version here, more on the Wiki):

- Indicate that you want to run a job with the estimated CPU (thread) usage and memory usage and give a runtime proxy on the slack channel (e.g. #motoko).
- Stick to the file organization structure (important!), see below and on Wiki
- Compute data on the SSD drives, but store data on the HDD drives
- Sync your (commented) code with github regularly (see above)
- Make backups of the most important data regularly (see above)
- Write Readme files and comment your code (so other people can follow)!

Data organization:

- General directories you can use are (just a quick overview, more info on wiki):
 - Software/ #this folder has to be on the SSD drive
 - Data/ #for the very raw genomic data (backup!)
 - Scratch/ #this folder is for data currently analysed (on SSD)

Your projects directories should be set transparently, so that other people can look at your data and code. You must do this, otherwise your analysis pipeline and data structure will be uninterpretable to others once you leave, and this will slow everyone down (and cause us to bug you repeatedly to clean up your project directory or answer questions about it). Before you leave, or upon completion of a project, you must archive old datasets and back them up.

Backup datasets

Lab data can be stored in one of three places:

- Lab server(s): genomic raw data and processed data that are hard (and/or time consuming) to re-generate, final data analyses are based on. Data/ folder is regularly backed up automatically.
- 2. The <u>Scibo</u> folders can be used to share datasets and/or code as well as other documents and used for backing up most important (small) data
- 3. RRZK cluster archive for the essentials (similar to lab server backup folders)

Although the server (Data/) is backed up to some extent, make extra backups of the most precious files! Each lab member should back up raw data on an external hard drive and/or

the NAS, as well as the code needed to reproduce all analyses (sync github regularly!). You should not store data locally on your computer for long-term backup, nor on the Scratch/.

Laboratory usage

The laboratories are common workplaces and to ensure everybody is happy, these have to be organized space. Especially because we deal with tricky DNA and RNA that can be contaminated easily, so we have designated workspaces for specific work. It is mandatory to speak to Jens before using the laboratories.

- Start with a clean workspace, leave a clean workspace
- Before starting your work, make sure you have everything you need (protocols, reagents, equipment,...). If something is missing put it on the "missing" list on trello and put it in the #laboratory channel in slack
- If you want to try a new protocol, no problem but talk to supervisor (and Jens) first
- Use the equipment only after an introduction

General Policies

Hours

Being in the lab is a good way of learning from others, helping others, building camaraderie, having fast and easy access to resources (and people) you need, and being relatively free from distractions at home (e.g., your bed or Netflix). That said, hours in academia are more flexible than other jobs -- but you should still treat it as a real job (40 hours/week) and show up to the lab. My primary concern is that you get your work done, so if you find that you are more productive at home (lab-mates can be chatty sometimes), feel free to work at home occasionally. If you have no meetings, no experiments, and no other obligations that day, it might be a good day to work at home - but you can't do this all the time, and I expect to see everyone in the lab on a regular basis. Be aware that it is necessary to fill out official forms for absence if you are on holidays (even one day), so that proper insurance is given.

To encourage lab interaction, try to be in most weekdays during 'peak' hours (assuming no other obligations) – e.g., between 10am and 4pm. This is not a hard rule, you can work at home occasionally, and I understand other obligations. But keep it in mind.

I sometimes work during the weekends or at unusual hours. This means that I will sometimes send emails or Slack messages outside of normal working hours. For the most part, I try not to, but sometimes I do. I do not expect you to respond until you are back at work (ignore me!). I do not expect there to be cases when I suddenly and urgently need something from you over the weekend (e.g., for a grant deadline), but should I anticipate that happening, I will bring it up in advance so we can plan accordingly. All this said, I realize that being told you can ignore my messages might not take away the stress of seeing my messages if you check work email or Slack in the evenings or on weekends. If my off-hours

messages are unwelcome and cause distress, please talk to me, and I will be better at not bothering you during your time off.

Although I sometimes work weekends, I try to only do that when absolutely necessary. Please respect that by making sure to give me enough heads-up about impending deadlines so that I can get things done for you (e.g., write letters of recommendation, give feedback on manuscripts, etc) while maintaining my work/life balance. For more details, see Deadlines.

PI Office Hours

In addition to weekly meetings (see below), and occasionally dropping by the lab, you can find Jens in his office. His door is almost always open; if it is, feel free to ask for a chat. He will always say yes, though sometimes he can only spare a couple of minutes or might ask you to let him finish typing a sentence. If his door is closed, assume that Jens is either gone, in a meeting in his office, or does not want to be disturbed – so please send a message (Slack or email) rather than knocking.

Meetings

Weekly Lab Meetings

Weekly lab meetings (~1 hours each) are meant to be a forum for trainees to present project ideas and/or data to get feedback from the rest of the group and to discuss lab organization. Projects at any level of completion (or even not yet started!) can benefit from being presented. These lab meetings can also be used to talk about methods, statistical analyses, new papers, and career development. For paper discussions, everyone must come to the lab meeting having read the paper and prepared with comments and questions to contribute.

Everybody is expected to present at least once every semester. These meetings are informal, and you can do what you wish with your slot – just be prepared to contribute something substantive. Lab members are also expected to attend every meeting (obviously, illnesses, doctor appointments, family issues, etc are a valid reason for missing a meeting).

Individual Meetings

At the beginning of each semester, we will set a schedule for weekly meetings. Each lab member will have a one-hour slot set aside to meet with Jens. If scheduling conflicts arise (e.g., because of travel), we can try to reschedule for another day that week. If there is nothing to discuss, feel free to cancel the meeting or just drop by for a brief chat.

Lab retreats

Once per year (if possible), we will have a lab retreat to spend e.g. a weekend in a hut in the Alps to informally discuss science and socialize. Most likely, these retreats will be joint with other labs working on related topics. This is a unique opportunity to chat and network, so do not miss it.

Deadlines

One way of maintaining sanity in the academic work is to be as organized as possible. This is essential because disorganization doesn't just hurt you, it hurts your collaborators and people whose help you need. When it comes to deadlines, tell your collaborators as soon as you know when a deadline is, and make sure they are aware of it the closer it gets. Don't be afraid to bug them about it (yes, bug Jens as well).

Give Jens at least one week's notice to do something with a hard deadline that doesn't require a lot of time (e.g., reading/commenting on conference abstracts, filling out paperwork, etc).

Give Jens at least two weeks' notice (preferably more) to do something with a hard deadline that requires a moderate amount of time (e.g., a letter of recommendation).

If you want feedback on research and teaching statements, or other work that requires multiple back-and-forth interactions between you and Jens before a hard deadline, give him as much time as you can; at the very least three weeks.

For manuscript submissions and revisions (i.e., which either have no deadline at all or only a weak deadline), send drafts to Jens as soon as you have them, and bug him to give you feedback if he hasn't responded in two weeks – papers are important!

Presentations

Learning to present your research is important. Very few people will read your papers carefully (sad, but true) but you can reach a lot of people at conference talks and posters. Also, if you plan on staying in academia, getting a post-doc position and getting a faculty position both significantly depend on your ability to present your data. Even if you want to leave academia, presentations are likely to be an important part of your job. Additionally, every time you present your work, you are representing not just yourself but the entire lab.

It is therefore highly encouraged that you seek out opportunities to present your research, whether it is at departmental talk series and events, to other labs (within or outside of Cologne), at conferences, or to the general public. If you are going to give a presentation (a poster or a talk), be prepared to give a practice presentation to the lab at least one week ahead of time (two weeks or more are advisable for conference presentations and job talks). Practice talks will help you feel comfortable with your presentation, and will also allow you to get feedback from the lab and implement those changes well in advance of your real presentation.

Some general rules for posters should be followed: minimize text as much as possible, make figures and text large and easy to see at a distance, label your axes, and make sure different colors are easily discriminable. Other than that, go with your own style.

Jens is also happy to share slides from some of his talks if you would like to use a similar style. You'll get a lot of feedback on your talks in any case, but other people's slides might be

helpful to you as you are setting up your talk. As with posters, feel free to go with your own style as long as it is polished and clear.

Recommendation Letters

Letters of recommendation are extremely important for getting new positions and grants. You can count on Jens to write you a letter if you have been in the lab for at least one year (it's hard to really know someone if they have only been around for a few months). Exceptions can be made if students or post-docs are applying for fellowships shortly after starting in the lab.

If you need a letter, notify Jens as soon as possible with the deadline (see Deadlines for guidance), your CV, and any relevant instructions for the content of the letter. If the letter is for a grant, also include your specific aims. If the letter is for a faculty position, also include your research and teaching statements. In some cases (especially if short notice is given), you may also be asked to submit a draft of a letter, which will be modified based on Jens's experience with you, made more glamorous (people are much too humble about themselves!), and edited to add anything you left out that Jens thinks is important. This will ensure that the letter contains all the information you need, and that it is submitted on time.

Open Science

We're all for open science, so lab members are encouraged (well, required) to share their code and data with others, whether they are in the lab or outside of it. Within the lab, you can share your code and data whenever you like. But do not share your code or data with the outside world until you think (and Jens agrees) that the lab has finished working with it. This gives us an opportunity to work with the data to meet our needs (including grant needs!) before releasing it for other people to use. Generally, we will try to make our data and code publicly available within one year of publishing the results (longer if work on the dataset is ongoing).

We will also share our work with the world as soon as we are ready, which means preprints! The lab policy is to upload a preprint of a manuscript simultaneously with initial submission to a journal. The preferred preprint server is bioRxiv. We will also put PDFs of all our papers on the lab website, and you should share PDFs of your paper with whoever asks.

Funding

Funding for the lab currently comes from Jens's DFG Emmy-Nöther funding.

You are encouraged to apply for funding whenever possible (for conferences, lab visits and your own salary and so on). This is not only helping the group, but having a successful funding track record is an important prerequisite for your career.

At some point, you will likely be asked to provide a figure or two for a grant Jens is writing,

and/or provide feedback on the grant. Relatedly, you are entitled to read any grant Jens has submitted, whether it is ultimately funded or not. Aside from being a good opportunity to learn how grants are written, this will also allow you to see his vision for the lab in the years ahead. Feel free to ask Jens to see any of his grants. But please do not share with others.

Failure

Failure is <u>part of the scientific process</u>. Do not ever forget that. It is very rare that an experiment or hypothesis <u>turns out as expected</u> and no paper gets accepted right away. And then you should be even more suspicious. This is especially true when studying non-model organisms in biology and evolution. And yes, it is frustrating. But failure is a necessary part of science, because proving or rejecting a hypothesis is the scientific process itself. And we can grow with these experiences and get a better understanding what is going on. The problem is, that nobody ever will show you the failed experiments or grant applications or rejected papers, and what you see are the polished CVs and presentations. It might even be helpful to <u>record your failures</u> (<u>example here</u>). You can be upset if something fails or a paper gets rejected, but also be <u>encouraged</u> for the next steps. Ultimately, the whole process is very rewarding.

Bureaucracy

The most important things to remember (because of Uni regulations and insurance). Most forms you can find on the Uni Formularschrank and on the Wiki.

- Working from home: send an email
- You are ill: Send email and after 3 days "Krankmeldung" form needed
- Going on holidays (also if only one day): send the "Urlaub" form
- Going on a work trip: send "Dienstreiseantrag" form
- For pre-reimbursement of trip: send "Abschlagszahlung Formular"

Special: Working during a pandemic

In the case of a pandemic, there are some special rules everybody has to follow:

- Sign a form that you agree on the hygiene measures and give your contact data for contact-tracing (physical form in the lab)
- Sign in and out when you arrived at the Uni and when you went home in the Sheets-Table for contact tracing
- Home office is the norm, come to Uni only when necessary
- Wash hand regularly, always after using the bathroom
- Use the given tools to disinfect regularly door handles and tables and computer peripherals