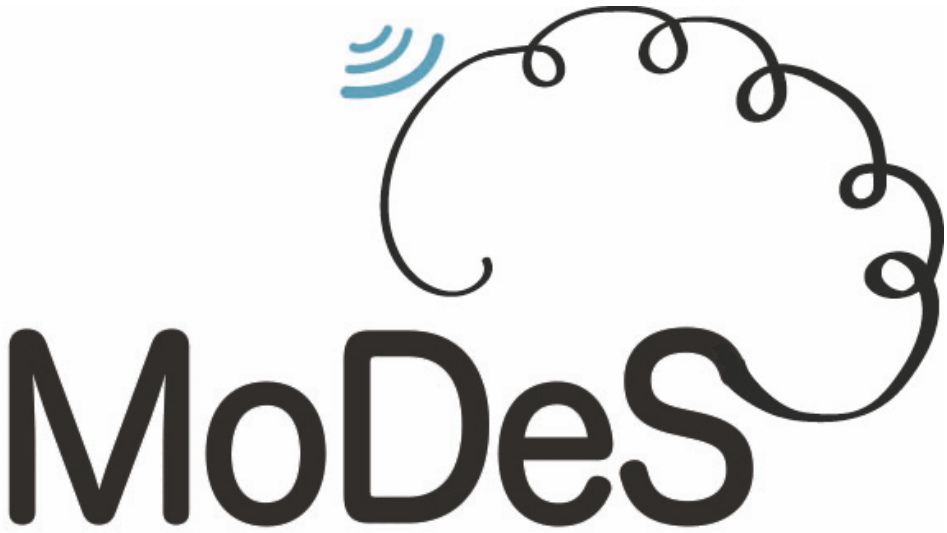
wellcome centre integrative neuroimaging

Lab Handbook



Klein-Flügge

MoDeS

(Motivation, Decision Making and NeuroStimulation) Group

Welcome to the Motivation, Decision and NeuroStimulation Group!

Welcome to WIN's Motivation, Decision and NeuroStimulation group! We are a team of researchers based at the Wellcome Centre for Integrative Neuroimaging (WIN), and the Departments of Psychiatry and Experimental Psychology at the University of Oxford (PI: Miriam Klein-Flügge). We are very excited that you have decided to join us.

This document was written to ensure that all new members of the lab and the wider research community have an insight into how our group operates. It was inspired by similar efforts in other labs, in particular the WIN Physics group, but inspiration was also taken from Laurence Hunt's, Mariam Aly's and other handbooks. In this handbook, you will find detailed information about life as a group member, what we expect from our researchers, and the support we can offer to your research development.

We hope this document serves as a useful resource throughout your time in Oxford and that you will find the lab will be a place where we support each other in learning useful skills and making exciting scientific discoveries. We expect new members to read this document by the end of your ***first month*** *of joining our lab. If you have any questions or concerns, Miriam will be very happy to discuss them with you. We welcome feedback that you may have on this document, and how we can continue to improve researcher experience across the academic spectrum.*

Research Group Culture

Workplace culture

We aspire to an inclusive work environment, in which all members can thrive and achieve their goals.

Work interactions

Working as a team: In general, we encourage working as a team, and supporting other members of the group wherever possible. Science is more fun and productive when it is collaborative, not competitive. Try and help others, and you can expect others to help you when you need it. For example, you are encouraged to find out what other people in the group (and across WIN/the departments) are working on, where they may be facing challenges, scientific or otherwise, and consider what you can do to help them. Most members of the group will have some projects they are leading and feel responsible for, which will be their primary focus of attention (more on that below under role-specific expectations). But in addition to those main priorities, it will benefit everyone in the group if we support one another with each other's projects and build bridges between projects.

Giving feedback, asking questions: An important aspect of our group's culture will be to provide feedback to each other. This often happens at lab meetings when people are giving presentations about their work, but it can happen in breaks, over coffee and at other times too. We try and take everyone's opinion seriously. As a group, it is important that we always strive to ensure that our feedback is expressed in a respectful and kind tone and is honest but not discouraging. You are equally encouraged to challenge the PI whenever you think she is wrong, or when your opinion is different. In our group, we value respectfully disagreeing with each other as new scientific ideas can often come from such scientific disagreements. Different people notice different things, and this can be a real strength. No one in the group is too junior to provide feedback or to ask questions. If at any point, you are struggling to understand something, please feel encouraged to ask. You are likely not the only person and others will be grateful if you speak up.

Conduct in meetings: Our group meets regularly throughout the academic year. We have joint Journal Clubs with the Rushworth group and will try and have regular lab lunches for more informal catchups. We expect all group members to attend whenever possible, and to take responsibility for a journal presentation about once a term. We discourage use of devices (laptops and phones) except for note taking, as a matter of respect for presenters. We aim for an atmosphere where people feel comfortable asking questions regardless of seniority. Questions should be asked in a respectful and friendly tone, and criticism should always focus on the research rather than the individual. Other ideas for meetings that would be helpful are encouraged. For example, we might run some lunchtime sessions on ultrasound, or other skills group members are interested in learning about. These might only be relevant to a subset of people in the group, but the same friendly and professional tone is expected.

Around the office: Some of our desks are in “open plan” or shared larger offices. While it is important to be considerate of the people around you (for example, by avoiding distracting noises or spilling out into adjacent spaces), it is in general encouraged to interact with each other, to exchange knowledge with one another, to make the best use of the skills around you in the office or adjacent offices (including the Rushworth team), and to work collaboratively and answer each other’s questions. Quick chats or questions can happen in the office while longer or louder discussions should take place in dedicated meeting rooms or the kitchen area.

Meetings with Miriam: Miriam will try to have an open-door policy to encourage lab members to drop in as and when they require input. A quick chat is often more efficient than a long explanation via email and is therefore encouraged. In general, it is good practice to spend some time (hours not days) on solving a problem yourself, but once you have done this, it is better to have a brief chat than to lose more valuable time (especially if someone else might know the answer). If the PI door is open, please feel free to just come in. If it is closed, please knock, or come back a few minutes later because Miriam might be in a meeting or trying to finish a task. There is no need to schedule a meeting for giving Miriam a quick update or asking a question. For longer discussions, it is best to agree on a mutually convenient time for a meeting. It can also be helpful to set up a regular 1h-slot when you meet Miriam every week. In general, this is encouraged, and Miriam will discuss this with you once you have settled in (feel free to remind her).

Resolving conflict: If there is any tension or hostility in the lab, it is best to do something about it immediately because it is difficult to thrive in an environment that we aren’t comfortable in. In general, disrespect or rudeness will not be tolerated in the lab. Please talk to Miriam if you experience any of these issues. Equally, if you have a problem with Miriam and are comfortable telling her about it, please do so. If you aren’t comfortable to talk to her directly, please tell other group members or another senior member of the department, depending on the circumstance and on what feels appropriate and helpful.

Inappropriate behaviour: We expect all group members to contribute to a positive atmosphere grounded in mutual respect. We ask that you show respect to all group members, this includes respecting their strengths and weaknesses, their culture, their religion, their beliefs, their sexual orientation. We do not tolerate bullying, harassment, victimisation, or discrimination. If you feel you have been subject to harassment, contact Miriam or a harassment advisor. If you witness or suspect someone else is being subjected to inappropriate or unwanted behaviour, discuss it with them confidentially or raise it with Miriam or a harassment advisor. For relatively minor cases (e.g., inconsiderate interactions that stop short of bullying), you can speak to the person who is behaving inappropriately if you feel comfortable doing so. However, you should not feel you have to resolve any situation yourself; resources and mechanisms for this are listed below.

University bullying and harassment resources: Harassment policy, Harassment advice, Responsible bystander advice, NDCN harassment advisors

Work habits

In-person vs. remote working: In general, we do not dictate expected working hours. However, we value in-person work. From our experience, it leads to more spontaneous interactions, teamwork, creative thinking, and better group meetings. Ultimately, we think you and your work will benefit from working in the lab and others will benefit from having you around. We therefore encourage you to spend most of your time in the office. On days when we hold our lab meetings (journal club, data presentations or similar), group members should generally come into the lab and attend meetings in-person. You are encouraged to use this as an opportunity to have lunch together, interact with other research groups, and catch up with one another. While we would encourage you to make the office your default place of work, we also appreciate that there can be value in working remotely sometimes, and academic jobs can offer such flexibility. If you plan to stay at home for an extended period (several days - e.g., to write a paper), please let Miriam know. In general, it is expected that during 'core hours' (9am-5pm, Monday-Friday), full-time members of the lab should be available to work on projects, collect and analyse data and/or have in-person meetings when required. It is encouraged to have a conversation with Miriam on your preferred working patterns soon after joining the lab, and to re-evaluate it when necessary. Also, please respect other lab members' work patterns.

Working hours: In general, we do not encourage regular long working hours. You are not expected to come into the lab on weekends and holidays, and you are not expected to stay late at night. You should not feel obliged to reply to emails or other communication platforms outside of your own working hours and should respect the working hours of your colleagues.

Communication and note keeping

Frequency of updates: It is ultimately up to you how frequently you update Miriam or a collaborator on your progress, but you are likely to get the most out of your project and work more productively with the team if you have frequent interactions with your colleagues and Miriam. As mentioned above, on average, Miriam will aim to meet once a week for a proper catch-up with group members, but she is very happy to chat in-between. She (and the group) would love to celebrate any small successes you have and support you in the struggles along the way as well. Remember we are all here because we love science, so sharing the preliminary plots you are proud of (and not just final polished results) will keep everyone engaged and excited about your research. Share your journey with others, often time is wasted if we try and figure everything out ourselves.

Communicating good and bad: For the most productive collaborations, it can be valuable to not just communicate with Miriam or your collaborators when things are working, but to give updates on your progress independent of whether things are working or not and explain the process (the reasoning behind what you did, the methodology, the interpretations etc).

Opening a meeting, minutes and recording of results: As this tweet summarized it, "Treat your advisor as goldfish. Always provide high-level context first.". It will massively

help Miriam (and most other collaborators you might work with) if you start the meeting with something like: “Last week we discussed doing X because we thought/noticed Y, and so I have spent this week trying Z [and this is what I did…] and here is what I will show you today…”. Otherwise, it is quite likely that Miriam/your collaborators will spend the first minutes of the meeting trying to switch from another meeting back to your data and trying to remember where you left things off last time.

In our team, we also strongly encourage taking meeting minutes and noting down action points after each meeting. These should be agreed upon by everyone in the meeting or at least you and Miriam, and they should be noted down by the student/postdoc in a place accessible to both (e.g., a google doc or a shared word document or similar). It can often happen that something expressed verbally is interpreted differently by two different people, so good note keeping will avoid you wasting time on unnecessary/wrong tasks. Similarly, if you can find a way to organize all results (or earlier on in a project: design decisions, analysis choices, pilot data plots etc) that are discussed in meetings – for example in numbered or dated powerpoint presentations or similar (A001, A002, … or 2022_09_22) that you can share with Miriam, this will be very helpful for keeping track of your project and for writing it up and doing revisions later on.

Bookkeeping, Code commenting: For results to be reproducible, your analysis pipelines must be well organized and documented. We recommend that you take notes on each step of your analysis pipeline and that you do so regularly. This means writing down how you did things and in which order, from any pre-processing of the data, to running models, to statistical tests. Equally, please take detailed notes on your experimental design (you will be grateful to yourself later). Your code should also be commented clearly. It is very easy to sit down, write some code to run a quick analysis and to forget to comment it. We often have a much harder time to decipher what we did later. So please try and comment your code in a way that makes every section understandable to an outsider right at the time when you write it. Finally, please use version control (e.g., GitHub, GitLab) to keep track of what code changes you made and when you made them. It can make sense to start a shared Git project with Miriam and your collaborators at the beginning of a new project.

Email and Slack: Email is preferred for sending important documents such as manuscripts. Email communication is meant to be asynchronous and there is no need to respond immediately. Lab members will strive to respond in a timely matter. As messages can sometimes get missed, follow-up emails are encouraged. Slack is sometimes preferred over email for quick messages related to ongoing projects, lab events, and anything that might be of interest to the group. Using a dedicated Slack channel is better than private messages - that way all project members are kept in the loop.

Authorship: 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 Miriam about it if you aren’t sure). Miriam will typically be the last author unless the project is primarily under the guidance of another PI and Miriam is involved as a secondary PI – then she will be second to last and the main PI will be last. 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 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.

Growing as a team

Socialising: Building a cohesive group means getting to know each other. Group members often have lunch together at work or socialise outside of working hours. We want everyone to feel welcome at social gatherings - alcohol consumption is always optional, and professional but friendly behaviour is always expected. None of these events are obligatory, and non-attendance will not impact our commitment to your professional development.

Embracing failure and celebrating success: Science is hard, and often things do not work out as expected. For example, your experiments may not work out as planned, you might find bugs in your code, participants may not show up, papers get rejected and similar smaller and bigger setbacks. Please know that this happens to *everyone*. It is completely normal for things not to work. If helpful, talk so someone in the group about it, try to learn from your experience and move on. Rest reassured this has happened to everyone else in the lab! It is worth remembering that science (publishing, getting grants, etc) requires persistence a lot of the time. So please know that we are here to cheer you along. Of course, along with the lowlights, there will also be highlights, and we want to celebrate our successes together, in the small (first pilot dataset collected, first draft of a paper written) and the big (paper accepted, grant funded etc.). Please do help other group members to celebrate by buying them a drink or a cake, sending them a message, writing a card, organising a social event or whatever you think will make them feel special.

Work and Wellbeing

Looking after your long-term wellbeing is crucial to being able to achieve your full potential.

Setting expectations: A key aspect of being happy in your career is having clearly articulated and agreed expectations. However, it is often difficult to predict how long a given task or step will take. Agree target project timelines, but remain flexible, and be understanding when timelines slip. Communication is key to managing expectations and setting work boundaries. If you feel your workload is impacting your wellbeing, please speak up to a friend or group member, and talk to Miriam.

Work-life balance: A healthy work-life balance helps to manage the stresses of academic research and we encourage everyone to find a healthy balance between their academic work and their other interests, hobbies and passions in life. Finding this balance will mean different things for different people. In general, though, (i) it is more important to work *effectively* than to work *long hours*; (ii) it is important to take breaks from work; for example, employees (RAs, postdocs, and the PI) are given 38 days annual leave per year including bank holidays, and they are encouraged to use this leave fully; students are encouraged to take a similar amount of holiday to employees; (iii) it is important to make time to find other things that sustain you in life beyond your work. Timing for your holidays is generally up to you, but we would ask you to notify other group members and Miriam about your plans as they might have an impact on them or their projects, and as it will help them organise their resources, time, or the continuity of projects more effectively.

Looking after your health: If you are unwell, please stay home and take care of yourself. Rearrange your meetings and research participants as required. If you need to take an extended period off work because of health problems (either mental or physical), please let Miriam know. In our group, you are strongly encouraged to prioritise your own well-being above all else: your work may feel important, but it can usually wait or someone else can help while you are away.

Mental wellbeing: Time to relax away from work is a critical contributor to mental wellbeing. If a colleague mentions that they aren't feeling okay, the most important thing is to simply listen to their concerns. If you are feeling mentally unwell, you can take sickness absence to rest and relieve stress (see the University's standard annual allowance of sick leave). You should not feel obliged to explain to your PI/line-manager why you are taking a sick day. If you are uncertain what mental health support provisions are available, speak with your PI/line-manager, HR (Staff) or the NDCN graduate team (Students).

Resources: University Work-Life balance Support, University Mental Wellbeing

Equality, Diversity & Inclusion (EDI)

We are firmly committed to creating an inclusive environment that celebrates the diversity of our group members and promotes equal opportunity. By cultivating a culture of inclusivity and respect, we strive to create a sense of belonging which we believe ultimately supports the work of our group.

The Personal & The Professional: Every group member represents a unique intersection of experiences and identity and should feel comfortable bringing their whole selves to work. We aim to nurture this by understanding how our differences interact with both our professional and personal lives and influence our individual aspirations and needs.

Support: Personal background frequently intersects with mental wellbeing, and workplace exclusion and inequality can contribute to mental ill-health. PIs receive training on how to support group members and can talk through issues you face, whether they are your direct PI or not. They will treat these conversations as highly confidential, provided it doesn't ethically compromise them or pose a risk to your wellbeing.

Building communities: EDI spans a broad range of topics and issues. Many are unfamiliar when first encountered and can be uncomfortable to talk about. WIN/EP/Psychiatry holds regular educational events aiming to normalise respectful and thoughtful conversations related to EDI, particularly around how these issues manifest in academic workplaces. These sessions aim to help you understand the challenges your colleagues face and how you can act in solidarity. We encourage everyone to consider engaging with our Member Networks dedicated to different communities, which can also provide peer support.

Resources: WIN EDI Strategy, University EDI Unit, University Occupational Health, Student Specific Wellbeing, EDI Calendar, Annual Leave Policy

Good Citizenship

Our success is largely down to individual members pitching in to help each other.

Being a good citizen: As a member of the group, you are strongly encouraged to get involved with some form of lab service. This kind of "good citizenship" ensures the smooth day-to-day running of the group's activities and ensures that the burden does not fall unfairly on a few individuals.

What constitutes good citizenship? Anything that primarily benefits the lab rather than you personally. Examples include teaching, supervision, advising colleagues, group admin, and volunteering for studies. Note, there is no expectation that everyone does all these activities, and there is no need to justify abstaining from some forms of good citizenship.

Finding a balance: Good citizenship activities can be time consuming. It is important that they do not significantly impact your research progress. We also recognise that not everyone has the capacity to take on additional work - for example, due to disability or caring duties. It is expected that you discuss any potential activities that may take time away from your main research with Miriam.

Roles & role-specific expectations

Our group consists of: *Students (Undergraduate, MSc, Visiting and DPhil students)*, *Early Career Researchers (ECRs), Research Assistants* and the *Principal Investigator (PI)*. We also interact with *Core Staff*, who include members of the administrative team at the Departments of Experimental Psychology and Psychiatry and at WIN, and technical staff (such as radiographers and imaging support staff at all sites). In this section, we describe the responsibilities of each role, challenges they may face, what you can expect from them, and in return what they can expect from you.

Students

Who do we mean? Anyone actively working toward a degree, including Undergraduate, Masters and DPhil students, and both Oxford-enrolled and visiting students.

Day-to-day: Students are responsible for a considerable part of the research in our group. The majority of their time is dedicated to their own research project, but they also do other "research adjacent" work. A week typically includes planning and running experiments, analysing data, supervisions, meetings with the PI or other group members, lab meetings, and educational activities (courses, talks etc).

Support for students: Students make important contributions to the research group. They can expect to meet with their supervisors regularly in a supportive environment. They should feel empowered to point out mistakes made by themselves or other group members or admit when they do not understand something. Supervisors should provide regular feedback and encourage students to develop their own ideas to progress their project.

Expectations of students: Students are an integral part of the wider lab and frequently play a crucial role volunteering to help with tasks the group needs to function. Supervisors can expect students to provide regular updates on their progress and participate actively in group activities. Students are expected to recognise that their research is a form of training and struggles are a part of the learning process. Students are encouraged to treat their research as they would treat a job; they should take a similar amount of leave to paid employees and strive to achieve a healthy work-life balance (more on that below).

Challenges: Navigating a first major research project is a difficult task. To be successful, students must acquire skills in data analysis, bookkeeping and good coding practice. They also need to develop "soft skills" including effective communication and time management. Unexpected difficulties are part of the research process - learning how to cope with setbacks takes experience, fortitude, and patience. These stressors can be exacerbated by additional factors throughout the degree, including the isolation of leading a research project, difficulty navigating work-life balance, and distance from long-standing support networks.

Early Career Researchers (ECRs)

Who do we mean? Postdoctoral researchers and junior fellows

Day-to-day: The ECR stage is marked by a transition to increasing independence. ECRs spend the majority of time on their own research, whilst also collaborating on a broader range of projects. ECRs may have other responsibilities, including teaching or supervision of Undergraduate and Master's students. ECRs may also be asked to help with grant applications.

Support for ECRs: ECRs can expect senior group members to dedicate time to their career development, alongside practical advice and feedback on their progress. Senior members should create opportunities for ECRs to take on increased responsibility, grow independence, and interact with the wider research community. Where ECRs are involved in supervision, students should take ECR guidance seriously, respect other demands on their time, and ensure their contributions receive appropriate credit.

Expectations of ECRs: Having recently navigated a PhD/DPhil themselves, ECRs will have many valuable skills which they are expected to use to conduct their research projects and to help others in the group. Depending on their level of experience, independence, and their funding situation, they may be expected to work on projects suggested by the PI, their own ideas, or a combination of the two. In all cases, they will be supported and guided by the PI and the wider WIN/departmental community. PIs can expect ECRs to facilitate the dissemination of expertise in the group, and support other lab members by providing crucial constructive feedback. ECRs will be given opportunities to present their work at departmental events, in other labs and at conferences. They will be encouraged and supported to spend time on developing the skills relevant for progressing in their career.

Challenges: Transitioning to increased independence places considerable responsibility on new ECRs. The role is often accompanied by changes in research group and/or topic, which requires adjustment. ECR positions are inherently transitional, and this stage in a researcher's career is often accompanied by growing personal commitments (e.g., starting a family). Managing a diversifying workload, the uncertainty associated with fixed-term contracts, and reduced supervisory support can be difficult.

Research Assistants (RAs)

Who do we mean? Staff with an undergraduate degree who support the lab in a paid role

Day-to-day: RAs are an integral part of the group and responsible for supporting the research activities in the group. They do not usually lead their own research project, but they help students and ECRs in the group with their projects. This can involve data acquisition (i.e., planning and running experiments), participant recruitment, data

organization and storage, data analysis, organizing lab events, lab meetings or meetings with the PI or other group members, and general aspects of lab management.

Support for RAs: RAs can expect other group members to support them and dedicate time to foster good communication with them, and to support their career development, alongside practical advice, and regular feedback on their tasks. Members of the lab should ensure RAs receive appropriate credit for their contributions.

Expectations of RAs: RAs are an integral part of the wider lab and will often need to develop new skills while in the lab. They are expected to be willing to learn and support others in the tasks that currently require input and time. Their tasks will generally be set by the PI, but often with input from other members of the lab. Supervisors can expect RAs to provide regular updates on their progress and participate actively in group activities. RAs can expect their career development to be supported by the PI and the wider WIN/Oxford community.

Challenges: Managing a diverse workload and reporting to various members in the lab can be hard and requires good communication and time management. The uncertainty associated with fixed-term contracts can be difficult, and some RAs may juggle PhD or other job applications on the side.

Principal Investigator (PI)

Who do we mean? *Miriam*

Day-to-day: Research is a core component of any PI's job. Miriam will typically engage in research projects via supervision and collaboration, and direct multiple projects in parallel. In addition, she will hold numerous other responsibilities that are not directly research related, including committees, group logistics (such as grant writing), leadership in large-scale initiatives, and teaching. Although Miriam is not employed by the department as a lecturer, she usually helps with tutorials, lectures, essay marking, and the running of practical classes throughout the year, but with a more limited and flexible time commitment than someone in a teaching role. Therefore, she often switches her work context multiple times a day and regularly spends entire workdays in meetings on disparate topics. She also frequently switches location and may have meetings in different sites across Oxford.

Support for PIs: Other members of the group can help Miriam by reliably completing tasks they have agreed to handle. If they need feedback or input from Miriam before a specific deadline, it is helpful to give her advance warning so she can fit it into her schedule. It is also helpful to learn to distinguish which decisions need her input, and which can be acted on independently. Short emails which focus on a few central points are easier (and thus faster) to respond to. Miriam can receive many messages a day, and so if she has failed to respond, then it's okay to remind her. Flexibility in scheduling can be a great help for Miriam as well.

Expectations of PIs: Miriam will have regular meetings with new lab members to clarify role- and project-specific expectations, and group members can expect her to provide ongoing support and clear communication of expectations. Miriam will play an active role in the research being undertaken, whilst offering guidance and mentorship on a broad range of research and career topics. Students and ECRs can expect Miriam to make time for regular supervision meetings. She will generally try her best to give timely and useful feedback (e.g., on project ideas, posters, talks, manuscripts etc). She will often be available in person (see section Work habits), or otherwise via email and try her best to let members of the group know when she is away for an extended period. It is possible that she will sometimes email you out of normal working hours. Please do not feel obliged to respond outside your own working hours.

Challenges: PIs find themselves managing conflicts at short notice and handling delicate situations that may impact many people. Busy PIs will regularly receive and send many emails per day. As a result, short emails are easier to respond to. Short responses from PIs are more likely to reflect efficiency and should not be taken as criticism. Whilst delays and mistakes can be interpreted as carelessness, they are often simply a consequence of navigating everything that requires attention. Nevertheless, Miriam will do her best to remain open to feedback around improving group management.

Core Staff

Who do we mean? Radiographers at WIN, administrative staff (e.g., in the finance, administrative and IT offices) across departments (EP, Psychiatry) and at WIN

Expectations of group members: We expect group members to *always* treat core staff with respect, and to value their time and high degree of professional expertise. Core staff are highly trained individuals, often with unique expertise not held by members of the Klein-Flügge Group. When their contributions go beyond what would be considered conventional ‘support’, they should be recognised appropriately (for example, co-authorship on an upcoming publication).

Developing As Researchers

Career Development

Building your skills and preparing for the next career move

Developing your CV: We encourage all group members to dedicate time to developing skills which support their career progression. A key metric upon which researchers are evaluated is their publications. Publications demonstrate the ability to see projects to completion, open up opportunities for career progression, and are valued in academia and industry. We recognise that not everyone wishes to make their career in academia. Our role is to cultivate your skills and expertise for whatever path you hope to pursue, and help you find the right next position when the time is right. There are several opportunities to get involved in a broad range of skill-building activities outside of your main research, including teaching, public outreach, and committee activities. Participating in these activities is beneficial not only for the individual but also for WIN/EP/Psychiatry as a whole.

Career progression: When it comes to considering the next career move, we are dedicated to supporting individuals, regardless of whether they aim to stay in Oxford, take up a post at another institution, or move out of academia. We are happy to help with applications and interview preparation. The WIN community can help introduce you to alumni or colleagues who can offer advice. Senior members have established relationships with academic and industry colleagues world-wide and can often provide an introduction.

Open & Responsible Science

Our commitment to engaging with the best scientific practice

Open science: Open science practices serve multiple aims for the scientific community. They facilitate reproducible research and accountability for data and findings, help the field move forward more rapidly by avoiding duplication of effort, and are in line with increasingly common initiatives from funders and publishers. The Klein-Flügge Group and WIN more generally are strongly committed to promoting best open science practice. Because the group/centre are Wellcome and UKRI funded, we also must conform to certain open access publishing requirements by the funders, which are being updated on a regular basis and can be found on the respective websites.

Within the lab, you are welcome to share your code and data at any time as long as you adhere to the ethics regulations (e.g., only ever share anonymized data without participant identifiers). Please do not share your code or data with the rest of the world until you and Miriam have agreed on doing so. Most commonly, we will make our data and code publicly available simultaneously with the submission of the paper to a peer-reviewed journal. Currently, the best option for sharing smaller datasets might be the

Open Science Framework (OSF), and the best option for sharing MRI datasets might be OpenNeuro – but the availability of such platforms is evolving, so please let the lab know if you find others.

We will also share our work as early as possible via preprints. Usually, a preprint of a manuscript is submitted simultaneously with the initial submission to a journal, but this can be discussed for each individual study. The preferred preprint servers are bioRxiv and PsyArXiv.

Reproducible research: Keeping your research outputs (code, data, figures, etc) in a reproducible state greatly facilitates you and others returning to it later. Ensuring your work is reproducible is good scientific practice for documenting your approach and catching mistakes, whilst facilitating data sharing on open platforms. WIN resources for reproducible research practices can be found on the Open WIN Tools webpage.

In brief, if you gave someone your raw data, they should be able to reproduce your results. Reproducible research is an essential part of science, and an expectation for all projects in the lab. For results to be reproducible, the analysis pipeline must be organized and well documented. As covered in more detail above, to meet these goals, it is important to take extensive notes on each step of your analysis pipeline.

Discovering mistakes: Catching past mistakes is an important aspect of good scientific practice and a key part of the research process. Mistakes happen to everyone and having reproducible research outputs provides you or others a better opportunity to catch and correct inevitable errors.

Ethics and research conduct: Our group is wholly committed to ethical and responsible research conduct. Adherence to approved ethics protocols is essential, and non-adherence can lead to severe consequences for the entire group (i.e., we may lose permission to run any research on human participants). All lab members must read and comply with the ethics documents for any project that they are working on. If there is no ethics approval, we cannot invite and test participants, look at the data, analyse the data, or be in any way involved in a project. Make sure to think early enough about applying for an ethics protocol if you want to run a study with human subjects.

To start a new ethics application, you should apply to the Medical Sciences Interdivisional Research Ethics Committee (MS IDREC) for ethical review. You have to fill out a CUREC form (make sure to download the latest version from here). If you are not sure whether to apply for CUREC 1, 2 or 3, make sure to ask other lab members. Your full application (including all supporting documents) should be sent by email to the MS IDREC Secretariat (ethics@medsci.ox.ac.uk). The approval of an ethics application can take up to several months, so make sure to start as early as possible to avoid any delay to your research progress. For most studies, there will be active ethics (e.g., for online testing, fMRI, etc) which you can amend, so you don't have to start from scratch.

If a participant falls ill, becomes upset, has an accident with lab equipment, or experiences any problems while you are conducting your research, you must notify Miriam as soon as possible. We may need to report this information to ethics and/or funding agencies.

It is also very important to keep all consent forms in one place in the lab (in a lockable cabinet) and to be ready to provide those documents to Miriam at short notice if the lab is audited. This also means no documentation should be missing, no documents should be left unsigned or not be dated, etc. When running a study, please make sure to always use the correct consent form and documentation, meaning that you are using the forms that were part of the ethical approval. Please make sure all forms requiring signatures are signed and dated. The ability of the lab to run studies depends on everyone complying with the ethics protocols, so please do not take this lightly.

Please talk to Miriam if you are unsure of the ethical implications of any given action, if you feel pressure to engage in ethically compromising behaviour, or if you observe research misconduct happening around you. We all want to do good work and succeed, 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.

If you feel you are being asked to engage in practices that you are uncomfortable with, it is always best to respectfully raise your concerns in the first instance. If you feel your concerns are not being given serious consideration, please talk to Miriam, a secondary advisor, the head of group/division, or a trained harassment advisor. If the issue cannot be resolved locally, refer to University guidelines for reporting research misconduct.

Collaborating

How to get the most out of scientific collaborations

Why collaborate? Collaboration in research enables researchers with complementary expertise to work on different aspects of a project, generating results that cannot be produced by an individual. Individuals with common expertise can also produce more innovative research by exchanging ideas. Collaborations often lead to co-authorships and demonstrate your willingness and effectiveness to work as part of a larger team.

When to collaborate: Although collaboration is almost always beneficial for all involved, it represents a commitment that should only be undertaken after careful consideration and should be discussed with Miriam. Collaborations can slow progress on your own research, while over-committing also risks not delivering for collaborators. If you and Miriam cannot agree on whether to take on a collaboration, seek advice from an independent PI.

Setting expectations: Be clear on the amount of time you expect to contribute in a given collaboration. There are no universally accepted formulas, but senior academics usually have a good sense of norms for co-authorship. If you and Miriam feel that an authorship is warranted, you can expect them to negotiate this on your behalf. They will also have a feel for when this discussion should be had; in general, it is good to have these discussions early. When considering whether to offer co-authorships on your papers, discuss this with your PI/line manager early, and revisit when it comes time to publish, noting the WIN Authorship Guidelines.

Travel and Conferences

Our expectations about travel, including collaborative visits and conferences

Conferences - The Basics: Conferences provide a fantastic opportunity to present your work and engage with external colleagues. They typically include scientific talks, posters, and educational sessions. If you find a conference you want to attend, talk to Miriam. Considerations include: match to your research topic, readiness of your research for presentation, opportunities to learn, and timing. In addition, you will need to handle logistics (funding, accommodation, visas, etc) with plenty of lead time. Staff will need travel insurance when attending conferences abroad.

Planning & what to expect: The primary aims of attending conferences are to present your research, represent the group, and to learn about your field. Use your time wisely: expect to be busy and plan ahead. Discuss your plan with Miriam. Ask questions and be curious - most people love to discuss their research. Discussions can lead to new insights, collaborations, and often long-term friendships.

Looking out for lab mates: Although rare, people can end up in vulnerable situations during work travel. We expect lab members to look out for each other and strongly recommend establishing a medium for communication with group members attending the meeting. If you see a colleague who appears in an uncomfortable situation, consider whether you can assist them. Should you encounter problematic behaviour by a conference attendee, please talk to a PI or conference organiser.

Expectations: Whilst travel can be a perk of the job, it can also present challenges. Travel can be a hardship for those with disability or caring responsibilities. Furthermore, people may feel travel to specific places is unsafe or not morally justifiable. You should not feel pressured to travel and should not experience disadvantages if you don't or can't travel. Miriam can discuss your concerns and advise on means to alleviate them.

Public Engagement

How we engage in public engagement initiatives, and how you can get involved

Why do public engagement? Much of the research we do is supported by public funding, whether through government or charitable means. We have a responsibility to engage with this key stakeholder to explain why this funding is important. The WIN centre/our departments have a long history of public engagement and are extremely fortunate to have generous funding from Wellcome to enable exciting and innovative engagement.

Benefits: Public engagement brings several benefits to the researcher. It improves our communication skills, teaches us how to distil complex ideas to a general audience, motivates our research through closer connections with those who benefit from our findings, provides inspiration from the public, forms connections between scientists, and enables us to pass on our enthusiasm for science to others.

Getting involved: There are several opportunities to get involved during your time at WIN, whether being part of an established activity, developing your own event, or becoming a WIN Public Engagement Ambassador. Please reach out to a member of the WIN public engagement team to discover more about how you can get involved.