

Hypertension Research Group Lab Manual

By Professor Francine Marques

Dear lab member,

Welcome to the Hypertension Research Lab at Monash University!

We are very happy to have you with us and will do everything possible to ensure you have an amazing (and scientifically productive) time here.

This lab manual was developed to address common concerns lab members might have and to create best practices for our lab. It was inspired by and borrowed from others ([this one](#), [this one](#), [this one](#) and the Merry Lindsey Lab). While we hope you find it useful, if you need to know anything else or have any questions, please talk to me (Francine, the lab head). This will be an evolving manual – feel free to suggest changes and additions!

My personal vision is to ***empower and support others to become the best versions of themselves*** – this means helping you become the best scientist you can be, find a career you love, and improve and maintain your health. My mission is to support those around me to become happier people by doing whatever I can to make this world better.

I assume the lab manual and wiki (check Google Drive; they are always updated!) are accurate. This means you should follow all the policies and protocols in the manual and wiki. Please let me know if you notice something that seems wrong. If you notice something in the lab manual or wiki that people aren't doing, please bring it up at the lab meeting or to me privately – don't assume it is okay (it's not!).

When you join the lab, you're expected to read this manual and confirm you have done so.

We hope you have an amazing journey with us!

Best wishes,

Fran and team

Lab website: <http://www.marqueslab.com/>

Mission statement

Our vision is to improve cardiovascular health by building *exceptional researchers*.

Our mission is to empower, inspire, and develop exceptional scientists dedicated to advancing cardiovascular health through innovative research and collaboration. We aim to cultivate a dynamic and inclusive research environment where respect, curiosity, and fulfilment drive our pursuit of excellence. By fostering a culture of continuous learning, team psychological safety and mutual respect, we strive to make significant contributions to our community and improve the cardiovascular well-being of individuals worldwide.

Our diversity statement

"We understand that scientific excellence depends on creativity, that creativity emerges from diversity, and that the advantages of diversity are realised through inclusion." David Asai

Our lab members recognise that diversity, equity, and inclusion (DEI) are essential for scientific excellence. We are committed to fostering an environment that aligns with our core values of respect, curiosity, and fulfilment:

- **Respect:** We actively challenge our unconscious biases and hold each other accountable. We value the voices of under-represented groups, respect diverse opinions, and create a psychologically safe and inclusive work environment.
- **Curiosity:** We believe that innovation stems from curiosity and creativity, which are fuelled by diversity. We strive to promote a diverse and inclusive workplace where all ideas can flourish.
- **Fulfilment:** We provide equal opportunities for all, ensuring that every team member can achieve personal and professional fulfilment in a supportive and equitable environment.

Lab values

Our #1 goal is to support our people to do the best research possible. To maintain this goal, lab members are expected to follow our values and the behaviours that support them, as defined by the team.

As a team, we decided these are our values:

Respect

Curiosity

Fulfilment

And we have compiled a list of behaviours associated with these values and behaviours that we do not tolerate, which I expect you to review (see appendix). We remind each other of these values when people behave against them. We also celebrate when people live by those values consistently throughout the year and in our annual lab awards.

Lab member expectations and responsibilities

Brené Brown says, "*Clear is kind, unclear is unkind.*" Over the years, I have noticed that issues arise within each team when people fail to communicate their expectations to one another. Thus, I prepared a list of expectations for all our lab members.

Everyone

Big picture

- Do work that you are proud of. Do work that others will care about. In other words, think about the 'why' behind the work and avoid doing it just because it hasn't been done before.
- Double-check your work. Being a little obsessive is essential to good science.
- Be supportive of your lab mates. We are a team.
- Work independently when you can and ask for help when you need it. It is okay to ask! In the beginning, you may ask more than you give, but as you become more senior in the lab, you will have the opportunity to pay it forward. We all have been there!
- Share your knowledge. Mentorship can take many forms.
- Respect each other's strengths, weaknesses, differences, and beliefs. No type of discrimination or harassment is tolerated.
- Work safely and keep a safe work environment for all.
- I don't expect you to be best friends with your lab colleagues (you can be if you want to), but I expect you to maintain a good working relationship and help each other when needed.
- Science is a marathon, not a sprint. Take personal time/vacation when needed and cultivate a life outside the lab. Respect that other lab members also have lives outside the lab.
- Communicate openly and respectfully with other members of the lab.
- If you have an issue with another lab member that cannot be solved by talking with them about it, please chat with me (Fran). If you have a problem with me, don't hesitate to contact a senior member of the lab (e.g., Deputy Lab Head or postdoc) or another member of the Department who can intervene (this can be the lab manager for more minor lab issues, Head of Department/Postgraduate Coordinator, or milestone panel chair for more serious problems).
- Academia may feel different from other jobs, but it is still a job, even if you are a student. You should treat it with respect as any other position (see Hours).
- Keep everything awesome! We want you to love working here as much as we do!

Small picture

- Everybody should attend our weekly lab meetings. This is an opportunity for you to share and learn from others. It enriches our research having you there.
- We're sharing space with our team members and other teams, so please be thoughtful of others – this includes noise in the open plan space as well as how clean we leave the lab facilities.
- Do not come into the lab if you are sick. Stay home and get healthy, and don't risk getting others sick.
- Notify the lab manager or Francine if you will be out due to illness or vacation – please post it on Teams. If you are sick and have experiments or meetings scheduled that day, notify your colleagues, participants, or collaborators and reschedule.
- You are not expected to come to the lab on public holidays (such as the Christmas break or Friday Easter), but please check Monash's holidays as we don't get all public holidays throughout the year.
- Keep the lab tidy and clean. Our lab is a PC2 facility; this means food and drinks are not allowed in the lab, and common areas should be clutter-free. Items left unattended may be cleaned, reclaimed, or recycled. If you're using lab equipment, put it away when you're done.

- If you need to borrow something from another lab member or research group, please ask first. If you couldn't ask first, ask later.
- The dress code in academia is generally casual. Jeans are acceptable, but pyjamas are not. I only request that you look semi-professional when interacting with participants and presenting your work. Also, remember to wear appropriate shoes if working in the lab.
- If we are running low on something, please add to our ordering sheet. Reagents can take a long time to arrive in Australia, so plan your experiments well in advance. Also, please communicate with the whole lab if you plan to order something. Shipping costs are high, and you should try to keep expenses to a minimum by ordering from the same company for a single order.
- Document your experiments and analyses and keep these well-documented on LabArchives and in an accessible place in the drive.
- Be respectful with others in and outside the lab and behave respectfully and appropriately if you communicate with our collaborators or at conferences as you represent the lab.
- We try to organise lab events (e.g., Christmas parties, milestone celebrations, or team bonding activities) at least once per semester. We would appreciate it if everyone could try to join, as this helps with team building (and it is fun 😊).

Lab head - Francine

You can expect from me all of the above, plus:

- Treat you to coffee/tea and, if possible, bring you a birthday cake 😊
- Maintain a vision of where the lab is going and be passionate about our work.
- Obtain the funding necessary to keep the lab going.
- Meet with you regularly to discuss your research projects. The definition of “regularly” may change over time or the course of a project, but for now, I mean at least once a week/fortnight or as needed.
- Give you my perspective on academia and issues related to professional development.
- Support your career development by introducing you to other researchers in the field, writing recommendation letters on your behalf, providing opportunities to attend conferences when possible, and promoting your work through talks.
- Care about you as a person and not just a scientist – as a mental health first aider, I will listen to you and try to help if you have issues outside the lab.
- Maintain “office hours” for the lab and respond to messages and emails within 48 hours (unless I am away). You are welcome to call me on my mobile if there is anything urgent, if I am not in my office or online on Teams. Please note that I sometimes work odd hours, which is a personal choice. If I think of something and email or message you on Teams after hours, I don't expect you to respond until it is reasonable for you to do so.
- Make time to read your manuscripts, thesis and reports, and obsessively edit what you write 😊 I always try to do it as fast as I can, but during busy periods (e.g., grant writing or teaching) this may take up to 4 weeks (or more). Please plan accordingly, and feel free to book my calendar (which is the fastest way to get feedback). If you give me or someone else in the team a draft due tomorrow or in a few days, and we don't know it's coming, we cannot guarantee we will have time to provide you with feedback.
- Provide you with a safe work environment.

- Talk and be enthusiastic about science. Feel free to send me cool data any time 😊
- Your success is my success, so please don't hesitate to ask me for help in reaching the next level.

Postdocs

All of the “Small picture” and “Big picture” stuff, plus you are expected to:

- Develop your own independent line of research (I'll be there to support you!).
- Mentor or supervise undergraduate and postgraduate students on their research projects, as requested or when appropriate.
- Apply for external funding and occasionally assist with the application process. I will hire postdocs only when funding is available for at least a year; however, applying for external funding is valuable experience, and if awarded, it will free up those dedicated funds for other purposes (e.g., hiring someone to report to you).
- Apply for fellowships if we decide you are competitive to secure your fellowship.
- If you plan to pursue a non-academic career, treat your postdoctoral research as seriously as you might if you were pursuing an academic career. We can discuss ways of ensuring you get the training you need while still doing excellent research.
- Keep a safe work environment for all.
- Step into leadership positions within the lab if I am unavailable.
- Read the book '*Dare to Lead*' by Brené Brown – I will provide you with a copy. This book has enormously inspired my own leadership journey, and I hope it will inspire yours too.
- Remind me that different scientific opinions can co-exist in the same lab!

Research assistants, study coordinators, and lab managers

All of the “Small picture” and “Big picture” stuff, plus you are expected to:

- Maintain lab protocols, stocks and paperwork (including OHS procedures).
- Oversee the training of students and other research assistants.
- Assist with participant recruitment and scheduling (if needed).
- Assist other lab members with data collection. This might need some flexible hours.
- Help to maintain an atmosphere of professionalism within the lab.
- Work on your research project.

PhD and Master students

All of the “Small picture” and “Big picture” stuff, plus you are expected to:

- Develop a line of dissertation research. Ideally, your dissertation research will consist of 2-3 independent studies plus literature review papers that can be packaged into one thesis document. I prefer that you submit a thesis by publication if possible, as it makes our lives and careers much easier.
- Apply for small external funding and travel grants. If nothing else, this is an extremely valuable experience and will help you improve your CV.
- Do some soul-searching as to what type of career you want to pursue, e.g., academic jobs that are research-focused or teaching-focused, non-academic jobs like data science or science writing. We can brainstorm ways to ensure you are getting the training you need.

- Work with a team of students and collaborate with others in and outside our team. This will speed up data collection for everyone, help you publish more papers, and give you experience managing and mentoring a team.
- Stay up to date (and keep me updated) on any deadlines you need to meet to fulfil your degree requirements.
- While I encourage you to do some teaching to get extra cash, I expect you to prioritise time for research. Getting caught up in coursework or teaching is easy, but at the end of 3-ish years, you need to have completed a dissertation. If you work as a TA for 3 hours per week, I suggest you set aside 3 extra hours in the lab to make up for those hours.

Honours and undergraduate students

All of the “Small picture” and “Big picture” stuff, plus you are expected to:

- Assist other lab members with data collection or analysis (typically you will be assigned to particular projects and will work with someone).
- Work with your research mentor/co-supervisor to determine your weekly schedule. If you are unable to come in at your scheduled time, you must let your mentor/co-supervisor know.
- Provide extra support to the team (this may include filing paperwork or helping with other experiments). If you are in the lab and do not have a task, ask the lab manager or your mentor/co-supervisor whether there is anything you can help with.
- Undergraduates who work in the lab for half or a full year and have a significant contribution to a project may have the option to be included in manuscript preparation and publications and might receive support to attend a conference to present their work (if they are first author).

Volunteers

All of the “Small picture” and “Big picture” stuff, plus you are expected to:

- Work with your research mentor/co-supervisor to determine your weekly schedule. If you are unable to come in at your scheduled time, you must let the research mentor know.
- Be respectful and listen to your research mentor/co-supervisor. We are usually very accommodating and will do our best to give you opportunities to learn and do experiments (depending on ethics, how precious reagents and samples are, and your own experience – sometimes you might only be allowed to observe). If we have any reason to believe you are not listening to our team members, you might be asked to leave and your time with us will cease immediately.

If you are earning course credit for research, you must additionally:

- Attend our lab meetings and journal clubs every week.
- Present at one meeting during the semester.
- Write a short essay on your research topic or experiences at the end of the semester.
- Even if you speak with me in person, it is important to document any requests (and my approval) over email so that we have a record. It is your responsibility to make sure this happens.

Communication

Good communication is very important for any workplace to work well, and very important to me. If you don't tell me or others what you need, we can't help you to achieve big things!

I am usually busier than I'd like, so I have less time to talk to people than I'd like. However, ***you (lab members) are the most important part of my job***, and I need your help to stay organised and involved in what I need to be. Some general rules of thumb are:

1. **Be proactive – tell me what you need.** This includes knocking on my door or messaging me on Teams, even if it seems like you are interrupting; emailing me to set up a meeting time; or catching me before or after the lab meeting. I will likely not check in with you as often as I'd like, so it is up to you to ensure nothing falls through the cracks. If you need me to be present in practice, talk, or be in the lab with you, please ensure this is on my calendar. My calendar fills up quickly these days; if it is not there, I will likely not be available when you want.
2. **Write things down and remind me what we've talked about.** I would love to remember everything we decided when we met last week, but this doesn't always happen. So, it is your responsibility to keep meeting minutes up to date in a folder I can access (ideally in our Google Drive or LabArchives if you are a student). This is also a great way to check we are making progress and address any issues. Don't hesitate to bring me up to speed when we meet. Even if I already remember what we are discussing, a couple of introductory topic sentences will help me get into the right frame of mind.
3. **Write down everything in your lab notebook (see more details below) and keep your LabArchives and Google Drive folder updated!** You are responsible for keeping electronic copies of experiments and results (in LabArchives and the lab shared folder). Also, read all the lab documentation: this lab manual, the lab wiki, protocols, and risk assessments. You are responsible for knowing what is in each of these places, following our rules and guidelines, and notifying someone if you find incorrect information (or if you have questions).
4. **My door:** Metaphorically, my door is always open, but sometimes my door is physically closed (or might not be there as I work remotely 50% of the time). If this is the case, please knock or message me on Teams – if I am not in another meeting, I am happy to help solve any life or lab crisis. If I am not in, please call me on my mobile if it is urgent or email me if you can wait 48 hours for a reply. Our Lab Manager and Deputy Lab Head can help if I am absent.
5. **If there is a problem, try to solve it.** If the problem is someone's behaviour, try to solve it directly or, if not possible, come and chat. Keeping a good work environment in the lab is one of my priorities, and I need your help to ensure that happens.

Code of conduct

General

Many topics were covered already in the Lab member expectations & responsibilities section.

In addition:

All lab members and visitors are expected to agree with the following code of conduct. We will enforce this code as needed. We expect cooperation from all members to help ensure a safe environment for everybody. Please also see the Monash University [Discrimination and Unacceptable Behaviour Policy](#).

Your safety is also one of my priorities, and I do not take this lightly. Please see the Wiki page for details on risk assessments, ChemWatch, training records and safety.

The Quick Version

The lab provides a harassment-free experience for everyone, regardless of gender, gender identity and expression, age, sexual orientation, disability, physical appearance, body size, race, or religion (or lack thereof). We do not tolerate harassment of lab members in any form. Sexual language and imagery are inappropriate in any lab setting, including lab meetings, presentations, or discussions. Both are taken seriously and can be reported to the university as misconduct.

The Less Quick Version

Harassment includes offensive verbal comments related to gender, gender identity and expression, age, sexual orientation, disability, physical appearance, body size, race, religion, sexual images in public spaces, deliberate intimidation, stalking, following, harassing photography or recording, sustained disruption of talks or other events, inappropriate physical contact, and unwelcome sexual attention.

Members asked to stop any harassing behaviour are expected to comply immediately.

If you are being harassed, notice that someone else is being harassed, or have any other concerns, please contact me immediately. If I am the cause of your concern, then please reach out to the Head of the Department or Institute, or another trusted academic member who can assist.

We expect members to follow these guidelines at any lab-related event. I expect you to behave accordingly if you are at a conference representing the lab.

Scientific integrity

Reproducible research

Reproducible research is research that can be exactly reproduced. This is related to replicability, in that it concerns your ability to get the same results again, but it refers specifically to getting the same results given the same *data*. I expect that all our research will be, at minimum, reproducible (I hope that it will also be replicable).

Conducting reproducible research is more difficult than it sounds because it requires that you are organised and possess sufficient foresight to document each step of your research process. The main thing you can do to improve the reproducibility of your research is to take extensive notes to make sure you can repeat experiments in the same amount of detail again: add explanatory comments, document every step of data analysis, and ensure you have the appropriate controls for your experiment.

I expect you to have a LabArchives account if you do wet or dry lab experiments, and if you do coding, I expect you to keep a record of all code used for any research.

Experiment pre-analysis plans

I suggest you present your experimental design at a lab meeting before you submit an ethics application or begin or complete an experiment. Feedback is very important in science, as it clarifies things. This will help you to start with the right study design (e.g., question, sample, model organism/cohort, controls, statistical plan).

I also ask you to consider the impact of our research on the lives of those living or affected by cardiovascular diseases and stroke. What is it that we are trying to address? Is it relevant/essential/timely? We have a group of volunteers with lived experience who can help us with these questions.

Authorship

We follow [Monash University's policy](#) on authorship, which is based on the following criteria:

To be named as an author, a researcher must:

- have made a significant scholarly contribution to a research output; and,
- agree to be listed as an author.

While authorship depends to some extent on the discipline, significant scholarly contribution must include at least one of the following:

- conception and design of the project;
- significant or non-routine collection of data that has required significant intellectual judgement and input;
- analysis or interpretation of data for the creation of the research output, where this contributes to the intellectual shaping of the
- research; and/or,
- drafting significant parts of the research output or critically revising it in a way that contributes to its interpretation.

A person who meets the authorship criteria, as outlined above, must not be included or excluded as an author without their prior permission.

Co-authors must agree on authorship at an early stage of their involvement in the research project and review their decisions periodically as and when necessary.

Higher degree by research students may publish research outputs from their supervised work and should be recognised as authors if they meet the authorship criteria. Where a graduate research supervisor contributed to the research output in a way that meets the authorship criteria, the supervisor has the right to be a co-author of the research output.

Unacceptable inclusions of authorship

Without substantial intellectual contribution, the following activities do not constitute a claim to authorship of the research output:

- being head of department, holding other positions of authority, or personal friendship with the authors;
- providing a routine technical contribution;
- providing routine assistance in some aspects of the project;
- acquisition of funding;
- general supervision of the research team; or,
- providing data that has already been published or materials obtained from third parties (including the routine collation and provision of research source material).

Authorship will be discussed before the start of a new project to ensure expectations are clearly defined. However, changes to authorship may occur over the course of a project if a new person becomes involved, if someone leaves (and leaves a study unfinished) or if someone is not fulfilling their planned role. I expect that post-graduate students will be the first authors of publications in which they are the lead authors, and I will be the last author if I am the primary supervisor.

Authorship and post-doctoral researchers

We acknowledge the importance of senior and corresponding authorship roles for postdoctoral researchers in building their leadership and independence. In agreement with our team, we designed a clear path to determine these roles in manuscripts arising from the lab (see Figure). However, we acknowledge that sometimes, depending on external collaborations and other specific circumstances, the guidelines below may need to be further discussed and negotiated.

Original research

If Fran applied for and secured the research funding as the main chief investigator and the post-doc led the work, the post-doc will be the first author and a co-corresponding author with Fran.

If the post-doc applied for and secured the research funding as the main chief investigator, they will be co-last author with Fran and the sole corresponding author.

If Fran applied for and secured the research funding as the main chief investigator and there is a student involved who was supervised/co-supervised by the post-doc, the post-doc will be co-first author/second author/one of the last senior authors and co-corresponding author – in this situation, the position will be negotiated according to the role the student had, how much work the post-doc contributed to, and whether there are other senior authors involved in the study.

Reviews and commentaries

If Fran received the invitation, she will be the last author and sole corresponding author.

If a post-doc receives the invitation, they will be the corresponding author and can choose their preferred position in the paper (e.g., last author if a student is involved). They can also choose if they want Fran to be involved at all.

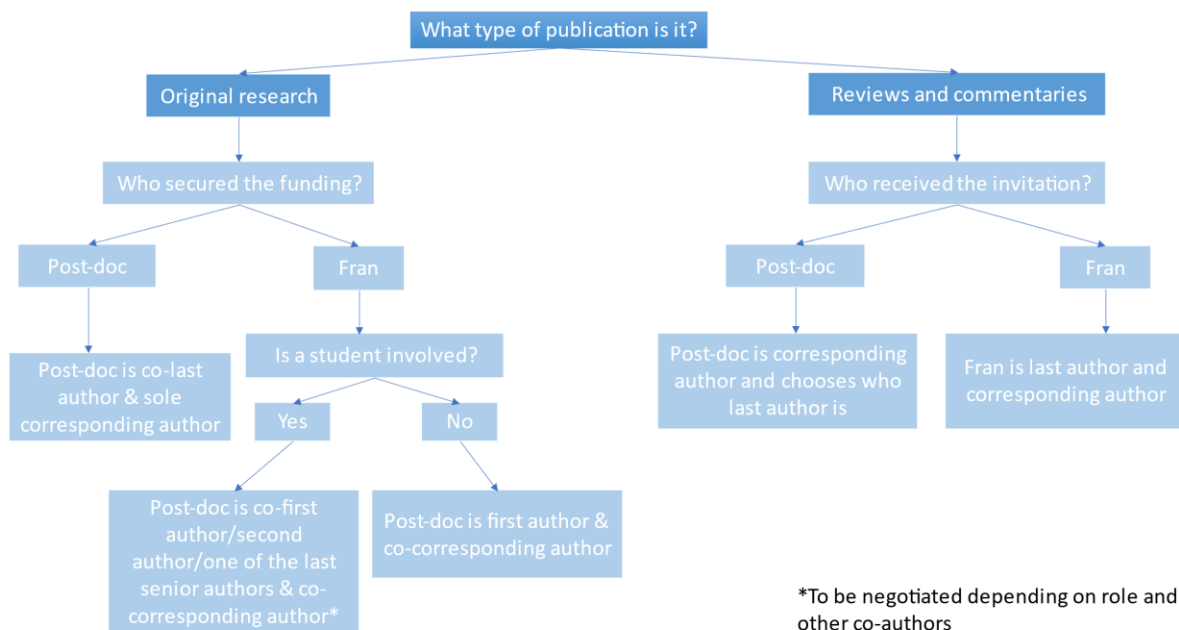


Figure. Suggested flowchart of authorship for post-doctoral researchers of the lab.

Manuscript submission

Manuscripts can only be submitted after I have read and approved them and the “*Template for experiment data sample tracking*” spreadsheet has been completed and reviewed. This is because I need to ensure that i) the conclusions are consistent with the results, ii) we acknowledge the datasets and funding bodies that supported the research, iii) I have enough information to be confident that the study was well-performed (which includes checking the statistical analyses), and iv) all authors have been appropriately acknowledged. We always circulate manuscripts to our co-authors before submitting them for publication and give them adequate time (at least a week) to give feedback. Failure to follow these procedures or to have my pre-approval to submit a manuscript will result in the manuscript being withdrawn from peer review.

Old projects

For projects that required significant lab resources (e.g., any study that required a great deal of time, money, or lab effort), project "ownership" expires 1 year after data collection ends (or whenever the original primary lead relinquishes their rights to the study, whichever comes first). At that point, I reserve the right to reassign the project (or not) to expedite publication. This policy is intended to avoid situations in which a dataset languishes for an extended period while still giving publication priority to the original primary lead.

Before any reassignment, Fran will meet with the original lead to discuss the situation and confirm the decision. If there are disputes in the decision, a senior Monash academic will be involved.

Mistakes in the lab

While it is not OK to make mistakes on purpose, I understand that they can happen to the best of us. Please be honest and tell me; I promise I won't be mad. We can talk about what

happened and how to avoid mistakes in the future. This can also be an important lesson for the rest of the team; as such, regularly and openly discuss mistakes and OHS incidents.

Most mistakes can be avoided if you have read the protocol, planned carefully, and are not tired. If you are tired, perhaps it is not the best time to start a new protocol. If you are unsure, consider asking a colleague to assist you with the experiment. Our culture does not tolerate a lack of candour or lying to me or your team members (see lab values in the appendix).

Research misconduct

If there are any concerns about research misconduct (e.g., data fabrication, protocol violations), please talk to a lab leader or me. If you are not comfortable in doing so, Monash's Research Integrity Advisor process provides a confidential pathway – see the Monash research integrity [website](#) for details.

Conference attendance and abstract submission

I support conference attendance, but we have a few rules if you expect to present data produced by the lab and expect the lab to contribute financially. The first and most important part is discussing which conference, data, and authors are involved. Assuming I agree that 1) the work should be presented at a conference, 2) that this is the best conference for you to go to, and 3) the lab has money to support your attendance, the second rule is that you need to give me an abstract draft at least 2 weeks before the deadline for submission. This is important so I can check that it is well-written, the data and its interpretation are correct, that all co-authors who contributed to the study are included, and **specific information that cannot be disclosed is not accidentally disclosed (as this would impact future patent applications)**. I will review it, discuss it with you, provide important feedback, and then distribute it to all co-authors (or ask you to), giving them a week (ideally) to make any changes.

It is not okay for anyone to submit an abstract without checking with me first, as this can lead to issues with publishing data, fall-out with collaborations that I have worked very hard to establish and maintain, and damage our position for patent applications. If you submit an abstract without following the guidelines outlined above, I will request that you withdraw it.

Honours students: Due to limited travel funds, PhD students and post-docs will have priority for travel funding. If, however, there is a local conference and funds are available, honours students will be encouraged to attend it.

Animal research

Because we are engaged in animal research, it is of the *utmost importance* that we adhere to our approved protocols. All lab members must be trained (and keep a record of their training) before they can handle mice or conduct any animal experiments. Also, we can only conduct experiments described in an approved animal ethics application. If you have any questions about the protocols or are unsure whether we have approval to run your study, please ask me for clarification. If necessary, we can file an amendment to an existing protocol, create a new application or submit an incident report. **We must keep good records of animal care and use.** This includes recording training, mouse well-being and experiments (soft and hard copies), and deaths. If there are any sudden deaths or you need to euthanise an animal, please notify me urgently. In some cases, we may need to report this information to the AEC in a time-sensitive manner.

Photography, Video Recording, and Social Media Use

To protect animal welfare, ensure compliance with ethics approvals, and manage institutional and reputational risk, the following rules apply to all members of the laboratory:

No photographs, videos, screenshots, or recordings of animals, animal procedures, animal tissues, or animal facilities may be taken without explicit prior approval from the Chief Investigator (CI). No such images or recordings may be shared publicly or privately (including on social media platforms, messaging apps, websites, or cloud services) without written approval from the CI and, where applicable, the Animal Ethics Committee. This policy applies to all platforms and accounts, including personal, “private”, friends-only, or overseas-based platforms. Approval to conduct animal research does not constitute permission to record or disseminate images or footage. Any approved images must accurately represent approved procedures and animal welfare standards and must not be taken out of context. Failure to comply with this policy may result in disciplinary action, including suspension of animal access, reporting to the Animal Ethics Committee, and/or institutional action.

All personnel must be informed of this policy during laboratory induction and are responsible for complying with it at all times.

Human research

Similarly, because we are engaged in human research, it is of the *utmost importance* that we adhere to our approved protocols. **All lab members must read and comply with the consent form and research summary for any project they are working on.** Lab members must also complete all training and be added to the research personnel list before working with participants or handling samples. If you have any questions about the protocols or are unsure whether we have approval to run your study, please ask me for clarification. If necessary, we can file an amendment to an existing protocol or create a new protocol.

If you encounter any problems while doing research that result in a negative outcome for the participant (e.g., if a participant becomes ill or upset, if there is an accident with the equipment, if there is a breach of confidentiality, etc), you should immediately seek assistance from me. If I am not around, you must notify me *within 24 hours*, preferably as soon as possible. Sometimes, we may need to report this information to the HREC.

Referencing

We use EndNote as our preferred referencing software. We would appreciate it if new people could also use EndNote.

Use of artificial intelligence (AI)

AI tools may be used to assist with the development of ideas, editing, coding, presentation preparation, and literature review. Under no circumstances should you enter unpublished data, identifiable participant information, confidential grant content, proprietary protocols, or peer review materials into any AI tool — regardless of whether the tool is a standalone chatbot or embedded in software you use daily (e.g., Microsoft Copilot, Grammarly, GitHub Copilot). AI can have significant legal and ethical implications – for example, clinical data could identify a participant, raising substantial concerns about data privacy, or uploading unpublished findings could jeopardise publications or intellectual property. AI-generated

content in manuscripts must be disclosed per journals' and Monash's requirements. AI cannot be listed as an author. If unsure whether a specific use is permitted, ask Fran.

There are also regulations at Monash about [acknowledging the use of AI](#) – please check how these apply to you, so you don't jeopardise your degree.

Work ethics and general policies

Hours

Being in the office/lab is a good way to learn from others, help others, build camaraderie, and be relatively free from distractions at home (e.g., your bed, Netflix, or puppies). That said, one of the benefits of a career in academic research is that it is typically more flexible than other kinds of jobs. However, you should still treat it like a real job. If you are employed for 36.75 hours a week, you should work 36.75 hours a week (this is the standard [Monash University full-time hours](#), which does not consider meal breaks). This applies to staff. You are not required to work overtime, but you might be asked to have flexible work hours on some days (for example, if you have a participant who can only come at 7 am or a large-animal study that someone needs help with); however, please discuss with me taking time in lieu for overtime. For students, I recognise that you have other demands on your time, such as classes and teaching, but I still expect to see you in the lab/office doing research often.

There is no need to sit around the lab if it is a slow week and you need to wait before the next step (and the lab is spotless, no one else needs a hand with anything, and it's not slow because of poor planning on your part). By the same token, some weeks will be so busy you hardly have time to grab lunch between experiments. If you are efficient, you should be able to complete all experiments within a normal business day and still have time to clean and restock supplies before you leave.

I usually work early and late in the day and might reply to emails at unusual hours. That is my choice to do so, but I want to clarify that I do not expect you to reply to my emails in unusual hours (unless it is urgent, which I would indicate in the title or probably contact you on your mobile).

Does it matter what time I arrive or start?

I encourage everyone to maintain regular office hours (e.g., in the ballpark of 9-5), even when working from home. It doesn't matter to me whether you start work at 9 am or 1 pm, as long as you get your job done and honour the commitments we made in our meetings. To support collaboration and lab interaction, all lab members are expected to be on campus most weekdays between 11 am and 3 pm (unless on approved leave, sick leave, or by prior arrangement).

Does it matter where I work?

We are all expected to work from the campus unless working-from-home arrangements have been negotiated and documented (students with Fran, staff with HR). The right to work from home is earned. If you want to formally work from home on specific days, please discuss with Fran, as this must be documented.

Being in the office or lab outside regular office hours

If you must be in the office or lab outside regular office hours (e.g., weekends), please review our risk assessment, add to Teams, notify Fran, and arrange a buddy, particularly if you are in the lab. This may mean that you have someone else in the lab with you, or that you are checking in with someone regularly via message/phone call. This is to ensure your safety and well-being.

Personal leave

All full-time staff and PhD students are entitled to 20 days of personal leave per year (or a pro rata equivalent if you work part-time). ***I encourage you to recharge your batteries when you need them.*** Just schedule ahead of time so we aren't left scrambling. Time off should be requested at least 1 week in advance. Once approved, please submit it via my.monash (for staff only). You must ensure you have sufficient vacation hours to cover any time off. Please also add your leave to Teams so we know when you are away and can plan experiments accordingly.

Sick or carer's leave

Sick or carer's leave does not come from your personal leave, but it should also be reported via email (students only) and registered on my.monash (staff only). If you are on sick or carer's leave, we do not expect you to be working from home or otherwise.

Work-life balance

Life as a scientist can be very busy and, for some, stressful. I urge you to strive for a work-life balance. I expect you to work hard in the lab/office but remember to spend time doing things you enjoy outside the lab too. Work-life balance looks different to everyone, so you need to find what works for you. Make time for your friends and family and keep a hobby outside the lab ☺ Rest is key to creativity and innovation!

Cooperation

When you are new, there will be many details you are unfamiliar with. Please take advantage of the long-termers and get their help. In turn, you can mentor the next newbie coming in. A mutually supportive environment makes working here fun and will strengthen our results.

Language

We have a multicultural team, which adds diversity to our research. Most of the lab members speak (at least) two languages, but English is the accepted language for the scientific community and the official language of the lab. If you want our team to think you respect them, you will try to speak English fluently. People will also feel excluded if you talk in a language not everyone understands. It's ok if you are in smaller groups and everyone understands the language. However, you will benefit significantly if you practice your English (this is true for both native & non-native speakers).

Laboratory work

You are responsible for doing the work in your project, especially if you are a student and the work is part of your thesis. Research assistants can help when someone is unavailable (for example, if they are sick or away) and when planned, large-scale experiments require more than one pair of hands. However, if this is part of your thesis, it is your responsibility to get it done and to organise help if needed.

Laboratory cleanliness

We share the lab space with other groups, so people walking by can look in and see it. A disorganised, dirty, and cluttered lab will tell everyone that we are disorganised, dirty, and cluttered. The logical conclusion will be that our research is sloppy, too. A clean and uncluttered lab, on the other hand, will convey that we are serious about our work, care about our results, and are at the top of our game. Therefore, we must keep the laboratory very clean. It is your responsibility to ensure that the lab is left clean each evening before you go. If you see the lab slipping, it is your job to get things back on track. If someone has left a mess, let me or the lab manager know, and I will come in and help clean it up and talk to the person involved.

Laboratory Notebooks (please see the Lab Notebooks slide deck)

Our Faculty expects us to keep digital lab books in the Lab Archives. All experiments should also be recorded and saved in the shared Google Drive so I can have access to them at any time. This is an absolute requirement in this laboratory. The expectation of all members of the Hypertension Research Laboratory is that detailed records of every experiment are maintained for all projects and are available for me to find at any point – this is necessary so I can comply with ethics applications and funding bodies. It is the responsibility of the person conducting the experiment to document it fully and promptly.

Records should include enough details to allow:

1. Your work is to be reproduced by others (the same experiment done on a different day or by a different person should yield the same result);
2. Your work is to be transferred easily into formal reports, papers, and presentations, and can be used for patent applications;
3. Steps to be retraced, in case a discrepancy occurs;
4. Contractual requirements for scientific production to be fulfilled;
5. A confirmation of research integrity;
6. Good records give us a defence against allegations of fraud and defend patents and proof of novelty claims.

A great notebook is one in which I can easily find a particular experiment, go to it immediately, and fully understand what you did, the results, and whether there were any deviations from the usual protocol. Specific notes:

- Because we have well-developed protocols for most of our experiments, you can print out the protocol & use this as a template to make notes on. There is no need to rewrite standard protocols.
- However, I highly encourage you to always be thinking of ways to improve our ability to answer questions by coming up with new techniques and innovative approaches. Never believe that how we do it now is the only way it should be done. I am very open to suggestions in this arena.
- For each experiment, you should document details that are specific to that experiment. Examples of a Western blot or flow cytometry protocol include antibody source & dilutions, exposure times, lane details, etc. Plan to show me your lab notebook when you first set it up & then one month later, in case we need to make any adjustments. All this information also needs to be added to your Google Drive folder so it is available for you and me to access at any time.
- It is much easier to fill in details along the way than to try to remember later what you did.

- Write legibly if you are writing on paper and then taking a photo and uploading to your LabArchives.
- Missing data causes huge problems on many levels and should be avoided. If a data point is not recorded, the reason why should be noted (this is for completeness and not for blame).
- A “failed” experiment (one that doesn’t work how you thought it would) is just as important to record as the “perfect” experiment. Key findings have been made based on a “mistake”. “Practice” experiments should also be recorded. In all cases, observations made along the way are the foundation of new hypotheses.

Data analysis

I will discuss the best strategy for analysing the data with you, and if you are unsure, I will show you how to do so. We may also organise a consult with the [Monash Statistics](#) team. I will also review all the analyses you have done, especially at the beginning, until we have worked together for a while. I usually use GraphPad Prism for graphing and basic animal data analysis, and SPSS for human data analysis; most of the other lab members prefer to use R. If you are analysing large and complex datasets, such as gut microbiome or any omics data, I suggest you learn to use R or other coding packages. We can teach you how to use R or direct you to a course to learn more.

Writing

If you are the first author on the manuscript, I expect you to write the first draft. If you haven’t done this before, I will discuss some headings and a format with you (see lab resources for our template – please do use them) and provide you with extensive advice, feedback, and likely editing. However, I still expect you to write the first draft – I can assure you that it gets easier with time, and you won’t be doing it all alone. I will always give you plenty of feedback so that you can learn and develop good scientific writing skills. Some lab members may benefit from a Grammarly subscription; this can be discussed one-to-one.

Mentoring

I am very supportive of lab members having external mentors. If that’s something you would like to pursue, let me know, and I can help you identify and approach potential mentors. Mentoring is about identifying career opportunities and directions that focus on your career development. Therefore, it’s lab policy *that meetings with external mentors should not discuss research details (either current or future ideas) unless I am present*. This is to protect our research and appropriately acknowledge intellectual input. If you would like a mentor to give feedback on a research project or idea, they would become a collaborator; thus, a joint meeting would be necessary.

Lab Resources

Teams

Teams will be used as the primary means of lab communication, such as general lab announcements (#general), sharing links, sharing and/or discussing papers (#papers), and any message that can be sent without email. I like it when people share papers they find.

Try to keep each channel on topic so that people can subscribe only to the channels that concern them. Use direct message channels for messages to one person or a small group of people. Full-time lab members should install Teams on their computers and/or phones. Part-time lab members should check Teams regularly. I get Teams updates on my phone and have do-not-disturb mode enabled for evening and night hours (meaning I will not get your messages then); I encourage you to do the same.

Lab Google Drive and backing up

All team members have access to shared files in the lab's Google Drive to facilitate collaboration, and I expect you to regularly add your data, drafts, and presentations there. Remind me to add you if we haven't already. You will also find a folder with lots of papers that you are welcome to add to (and a folder with papers for newbies to read, too), as well as all our lab protocols and other important files. This setup allows you to access Google Drive from anywhere in the world, ensuring that your data is always saved and accessible to me for review.

However, it is essential to respect the ownership and integrity of each file. ***Lab members must not modify, copy, remove, delete, share, or repurpose any documents, data, or materials without explicit permission from the file owner or Fran.*** Access does not imply authority to alter or redistribute content. Please exercise care and professionalism to maintain trust and data security across the team. All data must remain in the shared lab systems upon departure.

Note: identifiable participant data must not be stored on Google Drive. Refer to your HREC-approved protocol for approved storage systems. Contact Fran if unsure.

Bookings

We have Google calendars for some equipment, and I encourage you to book it to avoid any disappointment. If you need to use lab equipment that belongs to us, please leave a note on it. If it gets busy, we can investigate setting up a Google Calendar. Make sure you have received training on the equipment before you use it.

For equipment that belongs to other labs or is shared, please request training first and ensure you follow their booking protocols and rules.

Meetings

Weekly lab meetings

Weekly lab meetings will focus on project presentations and reviewing new data or methods. Lab meetings will last no longer than 90 minutes. If we need more time to discuss something after the allotted time, we will schedule an additional meeting. All full-time lab members are expected to attend the weekly lab meeting. All part-time lab members (including undergraduates) are welcome to attend, but attendance is not required if it doesn't coincide with your working day.

Journal club will focus on discussing new and/or important research articles. We usually discuss a single article that everyone has read. Given the current size of our team, this usually happens when we don't have anyone scheduled to present.

Individual meetings

At the beginning of each year, I will set a schedule to meet with each lab member for 45-60 minutes once weekly or fortnightly. If we don't have anything to discuss each week, that's fine – we can say hi, talk about the Melbourne weather, or cancel it.

Deadlines

If you need something from me by a particular deadline, please inform me as soon as possible so I can allocate my time as efficiently as possible. I will expect at least one week's notice, but I greatly prefer two weeks' notice. I will require two weeks' notice for letters of recommendation or to give feedback on drafts (so I can also send them to co-authors). If you do not adhere to these guidelines, I may not be able to meet your deadline. Please note that this applies to reading/commenting on abstracts, manuscripts, rebuttals, and the thesis, as well as filling out paperwork, etc. Remember, if I haven't approved a draft, you cannot submit your abstract/manuscript.

Presentations

I encourage you to seek opportunities to present your research to the Department/Institute, research community, or general public. If you will give a presentation (including posters and talks), please be prepared to give a first practice presentation to the lab ahead of time – sometimes you may benefit from a second practice. This will help you feel comfortable with the presentation and give you time to implement any feedback. I care about practice presentations because a) presenting your work is a huge part of being successful in science, and you must practice those skills as often as possible, and b) you will be representing not only yourself but also the rest of the lab. You will feel prouder of the result if you practice too.

Recommendation letters

Letters of recommendation are among the many benefits of working in a research lab. **I will write a letter for any student or lab member who has spent at least one semester in the lab.** I maintain this policy because I believe I cannot adequately evaluate someone who has been in the lab for a shorter period.

To request a letter of recommendation, please send me your current CV and any relevant instructions for the letter's contents. If you are applying for a grant, send me your specific aims or a summary of the grant. In some cases, though not all, I may ask you to draft a letter, which I will then revise to ensure it is consistent with my evaluation. This will ensure I do not miss any details about your work that you consider relevant to your application, and it will also help me complete the letter promptly.

Society membership

If you joined the lab as a student or postdoc, I expect you to apply to become a member of Hypertension Australia and the International Society of Hypertension (ISH; free for 3 years), and, if applicable, the International Society for Heart Research (ISHR). Please ask me what to do, and I will also give you recommendation letters. These are also among the main

conferences we attend nationally. International conferences we attend include the ISH congress, the AHA Hypertension Council or Scientific Sessions, the Gordon Research Conferences, the EMBL Human Microbiome Conference, etc. You are welcome to also identify a conference that may be specific for your niche and relevant to your work.

Journals

The following journals are among the top cardiovascular research publications, and I encourage you to sign up for the electronic table of contents (available on their websites). I like it when you email me or post on Teams (versus the other way around) to say you just saw a cool article published this week. The top cardiovascular journals are *Circulation*, *Circulation Research*, *Hypertension*, *Cardiovascular Research*, *European Heart Journal*, *JACC*, *Nature Reviews Cardiology* and *Nephrology*. Other great science journals are *Science*, *Nature*, *Nature Medicine*, *Cell*, *PNAS*, and *JCI*. Let me know if any others are your favourites.

Funding

Funding for the lab comes from my start-up package at the Faculty, fellowships and grants. Common funding bodies that have supported our research over the years include the National Health and Medical Research Council (NHMRC), the Australian Research Council (ARC), the National Heart Foundation, and the Sylvia and Charles Viertel Charitable Foundation. This means that work in the lab is supported by the taxpaying public and donations. As a result, I value science communication and engaging with the community, so I will help you to develop better science communication skills.

The Deputy Lab Head, the Lab Manager, and I will oversee all aspects of the financial management of our funding sources. However, it's essential to me to be transparent about the sources of research funding and how it's spent. I have included some notes below, but please do not hesitate to ask if you need more details.

All research funded by external funding bodies **must** acknowledge the grant number upon publication. This is essential for documenting that we are turning their money into research findings. We must also submit a yearly progress report describing what we have accomplished. Lab members involved in the research may be asked to contribute to the progress report.

Appendix – Team values and behaviours

The following values drive us as a team. We are all accountable for behaving accordingly.

1. Respect

Examples of behaviour that support this value include:

- I am mindful of the shared office and lab spaces
- I put things away in the lab and keep it clean and organised
- I actively listen to others (when people are talking to me or presenting)
- I listen non-judgmentally to and provide opportunities for everyone's voices
- I respect and understand that everyone follows a different learning curve and is at different stages in their career
- I show up on time and prepared
- I recognise people's capacity, boundaries and time
- I hold other people accountable, and I am accountable
- I acknowledge other people's ideas, work and opinions
- I have self-respect
- I am kind to myself and others
- I take on my fair share of tasks and responsibilities
- I am equitable in how I distribute tasks and opportunities
- I keep my teammates' best interests in mind
- I am responsible for my actions

2. Curiosity

Examples of behaviour that support this value include:

- I am open-minded to other people's ideas
- I actively listen to feedback and act on it
- I ask questions and do my best to answer people's questions
- I am willing to listen to constructive criticism and learn from it
- I am willing to learn new things/take risks and learn from the outcomes
- I ask open-ended questions
- I encourage opportunities to learn new things and pursue interests
- I work with others to innovate
- I support others in developing new skills
- I seek new ideas and people who can help me realise them
- I look for different ways to be more efficient and do things

3. Fulfilment

Examples of behaviour that support this value include:

- I help others achieve goals (including PhD milestones)
- I look for ways to feel fulfilled and grow at work
- I identify areas where I don't feel fulfilled and look for ways to change them
- I am proactive in identifying and pursuing my goals
- I help others according to my capacity
- I take part in and celebrate and reward accomplishments and the help I received
- I have flexible work hours when needed
- I act according to my own and the team's values to achieve a common goal
- I look after my own health

- I set boundaries for myself and make sure I have time to rest and recharge and do things that I enjoy
- I choose to find my fun and joy at work
- I motivate and help others achieve excellence

What types of behaviours we don't tolerate in our lab culture:

- Not paying attention when others are presenting or teaching me something
- Engaging in favouritism
- Interrupting people
- Projecting our bad mood to others
- Excluding people from conversations
- Gossiping
- Unethical behaviours (e.g., falsifying data, stealing ideas, hiding mistakes)
- Judging people and their ideas/questions
- Holding mistakes against people
- Discrimination and bullying of any type
- Undermining other people's efforts and abilities
- Selfishness
- Unfriendly feedback/criticism
- Pushing other people's boundaries
- Disrespecting the space I am in
- Taking credit for others' work without contributing, or relying on teammates to carry your share of the workload