Research Training Cheat Sheet
(Questions every research trainee should ask)

Mentoring
- How often would your mentor prefer to meet one on one?
- How often would your mentor like to receive data/results updates?
- What is the best way to informally communicate with my mentor (email, texting, slack, quick conversations, etc.)?
- What is my advisor’s mentoring style? How can I meld that style with my own? How can I manage up or meet them halfway?
- Who else is in my mentoring network?: In addition to my faculty mentor, do I know who else can I go to for advice on...?:
  - research methodology and techniques
  - troubleshooting experiments
  - academic progress
  - interdisciplinary questions
  - communication skills
  - professional development
  - potential career path exploration
  - interpersonal issues
  - managing graduate career and life balance

Research Collaborations and Authorship
- What are your mentor’s policies on deciding authorship?
- Under what circumstances would your mentor decide to alter agreed-upon authorship order?
- In my research group, what role do grad students take in drafting manuscripts as a first (or later) author?
- In a collaboration with another group, what types of communication would be managed faculty to faculty and what would be managed between grad students, postdocs and staff?
- Will my mentor allow me to participate in invited reviews or other non-research papers?

Plagiarism, Publication and Peer Review
- How does my mentor determine to which journal to submit a manuscript?
- Does my mentor ask grad students/postdocs to participate in peer reviews? If so, how do they acknowledge our contributions to editors?
- Does my research group ever use a plagiarism checker before submitting a co-authored manuscript or grant proposal (like iThenticate, the plagiarism detector used by journals)?
- Who in my research group is a good model for drafting and/or reviewing of manuscripts by grad students/postdocs?

Conflicts of Interest
- Does my mentor have any outside projects, consultancies, industry-sponsored research, or startup companies? If so, how do they balance their role as a faculty member, mentoring, and other commitments?
Data Management and Intellectual Property
- When I finish my rotation/graduate training/postdoc, what will happen to my project?
- How will the data be disseminated?
- What authorship role will I have for any unfinished projects?
- What data or results am I allowed to copy to take with me for reference?
- What follow-ups will this group be doing on my project and can I carve out some research space for follow-up projects from my future research group?
- What are the recordkeeping practices my mentor would like me to use? Is there someone in the group who is a good model?
- If my research project is potentially commercializable, can I be named as a co-inventor? What policies does my mentor use for determining co-inventor status?

Animal Welfare
- What are the most common animal welfare, health problems or handling issues that may arise related to our projects?
- Under what circumstances should I first contact my mentor or first contact a DLAM veterinarian with concerns?

Human Subjects
- What are the most common issues or concerns I should watch out for with patients/research participants in projects like mine? How should I follow up on each?

Misconduct
- Which questionable research practices are most prevalent in our field? How can I avoid those in my project?
- Where can I get more advice on appropriate research design and statistical analysis of my studies?
- If I suspect misconduct or negligence in a colleague, who should I talk to?

Lab/Research Safety
- What are the 4-5 most dangerous things in our work area?
- For each material that I handle, do I know: How to safely handle it? What to do in the event I (touch/inhale/ingest/am exposed to it) What do I do in the event of a spill?
- For each machine that I operate, do I know: What can go wrong? What are the most dangerous components? How to troubleshoot issues?

General Research Questions for Others
- What are the most pressing unanswered questions in our field today?
- What are the studies that sparked your interest in this research question?
- What are other approaches to this research question?
- What new technologies are poised to revolutionize our field?
- Does this work have potential to be commercialized or moved into public knowledge and use?

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If you have any suggestions for additional questions to add, let me know!