

The Markham Lab: Mission, Goals, and Values

We are an integrative neurobiology laboratory that is internationally recognized for our work on the neurobiology of animal communication systems.

MISSION

We do two things in this laboratory: We make discoveries and we train scientists. We measure our success in achieving this mission by the number and quality of papers we publish, and the accomplishments of the students we train.

GOALS

The goal of our lab is to achieve a complete and integrated understanding of animal communication that ultimately spans from evolution to molecular mechanisms. We pursue this goal by investigating the communication signals of weakly electric fish.

Students working in the lab will of course have their own goals such as gaining research experience (and letters of recommendation), obtaining course credit, completing an honors thesis, or simply exploring whether research is something they wish to pursue as a career. All of these are valid reasons to work in the lab, but we must be clear that student goals cannot subvert the overall lab goals.

CORE VALUES

Integrity-

We work hard, all the time, take pride in our work, and stand behind it 100%. To enable this, we must perform our work with great attention to detail and communicate our findings with complete honesty. It includes diligent and honest note taking and documentation, prompt and complete communication through all channels (verbal, email, and through our lab management system). Following directions carefully and comprehensive communication are the only ways to produce meaningful results.

Responsibility-

Everyone in the lab is responsible for the work we produce and the lab environment we maintain. If something is wrong, then fix it, or make sure it gets fixed. Take initiative - always look for ways to make progress and to make things better. Mistakes are always to be avoided. However, consequences from mistakes of initiative are often more desirable than those from mistakes of guardedness.

Safety-

We put a very high priority on safety, and pride ourselves in our implementation of safety procedures and precautions in the lab. It is of utmost importance that you do the same. All

members of the lab are required to undergo University and lab specific safety training when they enter the lab, and at yearly intervals thereafter. You must read and understand the safety measures needed for every experiment and procedure in the lab and follow safety guidelines at all times. Always ask for clarification at any time that you are unsure of the correct procedures.

Respect-

All the work we do is of importance, and all members of the lab are important. Therefore, we require respect for others, the lab, and yourself at all times. Respect for the lab includes keeping an orderly environment, picking up after yourself, and ordering supplies when they are low. Respect other students by staying out of any restricted areas, such as a graduate student's bench, and by asking for help when you need it. Respect the lab manager and PI by being prepared for work each day, keeping appointments, and notifying promptly when you will not be in lab. Respect yourself by knowing your role in the lab, learning to work independently, asking for help when you need it, and balancing your time so that you can be effective when working in the lab. Respect your health and others' by taking time off when you are sick, and not re-entering the lab until you are symptom free for 24 hours, un-medicated.

EXPECTATIONS

Time

The most important ingredient for your success is the time that you spend in the lab. Something you must learn and plan around is that science does not care about your weekends or holidays. You may be required to work during the weekend or over a holiday. Time in lab must be well spent. Merely being present in the lab is not enough; you must be doing work to progress.

Time management is an essential skill for anyone doing lab work, especially students. You will need to be able to balance your schedule and your lab work. You may have periods of time where you are waiting for a procedure to finish. It is acceptable that you spend that either in class or you can work on non-lab work during that time. This must not interfere with your progress, however. The time between experimental steps is a great time to work on your understanding of your project through reading the literature. You may need to schedule your experiments such that the procedures fall in between class and other obligations. We ask that you do your best to ensure that you are progressing in a timely manner.

The training that new students receive during their first weeks in the lab is absolutely crucial to their development. Therefore, we ask that those entering the lab commit to a full summer of work, or a full December intersession upon entering the lab. This will enable you to become fully trained. We require at least 20 hours per week in the summer or winter intersession, during normal business hours. You must keep to your schedule once it is set and communicate any absences with the lab manager. During the school year, we understand that you might not be available during normal working hours, but we do expect you to spend at least 10 hours per week in the lab. We expect that you will become increasingly independent of the lab manager. As your skills develop, it will be possible, and often necessary, that you spend time in the evenings or during the weekends working in the lab.

Communication

We demand total communication from all members of the lab. This includes honest note taking, checking email regularly, replying to emails promptly, and attending meetings. We use a digital lab management system, which will be different from your typical lab notebook. We still expect, however, rigorous note keeping from each member. This is how we communicate our progress. We will be communicating through this system as well, with task assignments and comments to experiments. You are expected to reply promptly to these communications.

Sick Policy

We expect hard and thorough work. To produce this, you must be in good health. Symptoms that need to stay out of the lab include fever, vomiting, and diarrhea. Please seek medical attention, and contact the lab manager as soon as you know that you will be absent. We do not typically require a doctor's note, but will ask for one if absence becomes an issue. You need to contact the lab manager so that she can make arrangements for your work to be completed during your absence. You may return to lab once you are symptom free (without the aid of medications such as fever reducers, etc.) for 24 hours and you have been on antibiotics for 24 hours (if they have been prescribed). This policy is in effect to ensure that you are fully recovered and to prevent the spread of illness to others.

Severe Weather Policy

In the spring, severe weather is a concern in Oklahoma. We will have the weather radio turned on at all times from March until July. We ask that all members of the lab heed the warnings from the weather radio and local authorities. In the event that a tornado warning is issued and/or the local sirens are sounded, all personnel must evacuate to the basement of this building, Richards Hall.

Data Ownership and Sharing Information

Data produced in the laboratory is owned by three entities: the University (sponsoring organization), the funding agency, and the PI (Dr. Markham). The PI solely holds the right to use and publish data. In a typical paper based lab, we would make a statement here about how original copies of all notes must be stored in the lab and not removed. As we use an Internet based lab managing system, this is no longer an issue. However, we still require that all information concerning your laboratory work not be shared outside of our lab.

Professionalism

We believe that working in the lab should be fun; at the same time we do expect a level of professionalism out of every member. You are expected to communicate any absences, keep appointments, and stick to your schedule. When we are out in the community in a professional capacity, remember that you represent our lab, the University of Oklahoma, and science as a whole. You are expected to conduct yourself in a professional manner, keeping meetings, communicating effectively, and spending your time appropriately. These are easily accomplished when you adhere to the core values of the lab.

Discipline

In a laboratory setting, there is little time to be wasted and we will not tolerate behavior that jeopardizes the safety and integrity of our work. We reserve the right to dismiss any student who is not following the core values and not meeting the required expectations. If we feel that a student is not adhering to these policies, we will have one meeting to discern the source of the issue and develop a plan to bring the student in alignment. If there is no improvement within the set time frame, the student will be asked to leave the lab. This probationary period may be skipped entirely for egregious breaches of conduct, and are determined at the discretion of Dr. Markham and the lab leadership.