MENTORS GUIDE TO THE SUMMER RESEARCH INTERNSHIP PROGRAM
FOR FIRST AND SECOND YEAR VETERINARY MEDICAL STUDENTS

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DEAR PROSPECTIVE MENTOR,

Thank you for your willingness to serve as a mentor for the Veterinary Scholars Program Summer Research Internship. Excellent mentorship is critical for the success of this program. This guide is designed to provide prospective faculty with details of the scope and objectives of the program, the application process and other technical aspects of the program, and expectations of the mentors participating in the program.

WHAT IS THE PURPOSE OF THE PROGRAM?

The purpose of the program is to provide veterinary students with positive experiences in research early in their curriculum as a means to encourage students to consider alternative careers in clinical or basic science. This program is aimed at providing a "taste" of veterinary research for those students without significant prior experience.

The program "matches" veterinary students with faculty mentors and provides the student with a stipend to work on a research project in the mentors laboratory full time for a 10-week period over the summer. The mentor is responsible for funding the research project.

WHICH STUDENTS ARE ELIGIBLE TO PARTICIPATE IN THE PROGRAM?

- Veterinary students who have completed their first or second year of veterinary school are eligible to apply.
- The highest priority will be placed on students who genuinely desire a research experience but have not previously had such an opportunity. Students enrolled in graduate programs, students who have received advanced degrees in science, or students who previously participated in similar research programs at NCSU or elsewhere are not eligible to apply.

WHAT ARE THE SELECTION CRITERIA FOR THE APPLICATIONS?

1. Suitability of project

- The proposed project should enable the student to formulate a testable hypothesis, identify specific objectives, conduct research, interpret data, and present their findings in a written and oral abstract format at the conclusion of their summer experience.
- We realize that 10 weeks is a short time to complete a research project. The project should be of sufficient scope to provide a good research experience while remaining focused enough that the majority of it can be completed within a 10-week period. The research experience can be a stand alone project or a piece of a larger more comprehensive research project.
- It is important that the research project provide some technical experience associated with data gathering and/or analysis. Retrospective studies restricted to extracting data from medical records and data entry will be assigned a low priority.

2. Resources for completion of project

- Sufficient financial resources are available to support the research project.
- IACUC approval has been obtained in support of the project if applicable.
- Technical support is available to the student as is necessary for completion of the project.

3. Positive track record of the mentor – see below

WHAT ARE THE EXPECTATIONS OF THE MENTOR?

The success of the summer research internship program depends on the individual mentors working with the students. The following list of expectations was developed to guide faculty supervising summer research interns. These expectations will form the basis for mentor evaluations in the future. Our goal is to strengthen the mentoring of the summer research internship experience, which will ultimately strengthen the program and ensure the future success.

The mentor shall:

- Oversee all aspects of the project
- Ensure that the student attends all required activities
- Provide the necessary background and other information necessary for the student to complete the project
- Meet regularly with the student (Weekly meetings recommended) and be appropriately accessible to the students outside the regular meeting schedule
- Contribute to the students intellectual growth and development
    - Help the student with experimental design and methodology
    - Help the student develop experimental progress and direction
    - Help the student troubleshoot experimental problems
    - Help develop the students capacity for reasoning and data interpretation
    - Help the student think critically and objectively about their own results and ideas
- Provide financial resources for the project
- Provide or arrange the necessary facilities and equipment for the project
- Contribute to the students professional development
    - Provide counsel for professional decisions
    - Help the student envision a career plan
    - Provide input and guidance for abstract, presentation, and poster preparation
- Serve as a role model
    - Convey high ethical standards and concerns for research subjects
    - Illustrate active teamwork and collaboration
    - Illustrate good work habits
    - Illustrate good mentoring skills

Activities and Expectations

Students are expected to complete 10 weeks of full time research over the course of the summer. In addition to working in research laboratories, there will be several joint events held during the summer for all participating students. Full participation in each activity is an expectation of each student in the program.

1) An **orientation program** including lunch and seminar for scholars and their faculty mentors on the first day of the program. Goals of the program are to clarify procedures and expectations of mentors and scholars; impart a global perspective on evidence-based inquiry and technical approaches to problem solving; and to showcase NCSU excellence in genomic research.

2) A **weekly seminar series** that will cover a range of topics including the following:

- Career opportunities for veterinarians in research
- Conducting studies with animals – ethical and regulatory considerations
- Information resources for the clinical and basic sciences
- Effective grantsmanship and the development of hypothesis-driven research
- The essentials of manuscript preparation
- Preparing and presenting scientific data as an oral abstract or poster
- Practice session for oral abstract presentation

Seminars will be held at 8:00 am to facilitate scholar participation without conflict with their ongoing activities in the laboratory.

3) A **half-day symposium at NIEHS, EPA, or other local site.** The goal of this trip is to feature the unique role of veterinarians engaged in research for industry and government. Veterinarians in pathology, drug discovery and development, and laboratory animal medicine will be featured speakers.

4) Attendance at the annual **Boehringer-Ingelheim-NIH National Veterinary Scholars Symposium is encouraged.** The VSP will make every effort to cover the travel expenses and registration for all students who wish to attend. Students who attend are required to submit an abstract and present their project in poster format. Poster printing will be paid by the VSP if students attend the Symposium.

5) Finally all summer research interns are expected to present results of their summer research project at the following **CVM Research Forum**.