FOUNDATION FOR FOOD & AGRICULTURE RESEARCH

Foundation for Food & Agriculture Research
2021 Veterinary Student Research Fellowships

BACKGROUND

Veterinary medicine is critical to addressing global challenges that include food security, economic well-being and public health. Several of the U.N.'s Sustainable Development Goals (including No Poverty and Zero Hunger) are unattainable without livestock health programs and research. In addition, the COVID-19 pandemic indicates the importance of understanding agricultural pathogens that could have the potential to cause pandemic diseases in humans. Research at the interface of food-animal production and the medical sciences is critical to understanding - and preventing - these emerging threats.

Veterinarians need to be more involved in challenges ranging from environmental sustainability to population growth and climate change; yet veterinary students have limited opportunities to gain experience in the research approaches that will be used to address these issues. The FFAR Veterinary Research Fellowships provides support for veterinary students to gain experience in these areas of agricultural research, preparing them for a variety of important public service and research careers.

FFAR's Veterinary Student Research Fellowships were developed to integrate with existing CVM summer research student programs and culminate in the widely attended National Veterinary Scholars Symposium (NVSS). The Association of American Veterinary Medical Colleges (AAVMC) is collaborating with FFAR to design and administer the Fellowship program.

RESEARCH TOPICS SUPPORTED

The FFAR Vet Fellows program will support student research in the following areas:

- Agricultural economics and supply chain resilience, in the U.S. and globally
- Food access, demand, and nutritional security
- Mitigating the carbon footprint of agriculture
- Improving livestock production efficiency in tropical/subtropical environments or changing climate conditions
- Gene-editing, precision breeding and/or metagenomics research for improved production efficiency, health or welfare
- Surveillance and/or computational modeling related to the mutation, evolution, transmission and spread of animal coronaviruses and influenza viruses

The FFAR Vet Fellows Program **will not** support research projects that fall outside these areas.

ELIGIBILITY

The program is open to students currently enrolled in a DVM or VMD degree program. Students that have completed any advanced degree (DVM, VMD, PhD, MS, MPH, MBA) are not eligible for consideration. Students who are currently supported by a Federal grant (e.g. T35, T32, F05, F30 or F31) are not eligible. FFAR and AAVMC strongly encourage applications from students without prior research experience.

CVM program directors may select up to two students per year for nomination. Students should be nominated by the program director from their home institution and may conduct their research with a faculty mentor from their own or a different institution ("exchange"). The home program

directors are responsible for ensuring that the nominated student(s) are in good academic standing and will manage the financial support intended for the student(s) they nominate. While we encourage program directors to consider the opportunity for exchange, this is not mandatory for either of the two nominees selected by a program director. Exchange projects can be conducted remotely or virtually.

FFAR and AAVMC strongly encourage CVMs to nominate students from historically underrepresented backgrounds and to consider hosting students from different institutions (virtually, if necessary). Students that contribute to diversity in the veterinary profession are highly encouraged to apply (please see AAVMC's definition of diversity in the veterinary profession but note that other facets also contribute to diversity, equity and inclusion).).

The students' research projects should be consistent with the scientific method, enabling the construction of a testable hypothesis, collection of data and description of results in an abstract or oral presentation. Use of methodologies considered less common in the veterinary profession (e.g. computational modeling, economics, high-throughput sequencing) is strongly encouraged.

All research will be conducted in accordance with the host university's research compliance requirements (e.g., IACUC, IRB). If human subjects are involved, the student should be trained in culturally appropriate methods to reach the target population and the mentor must have IRB approval for the project.

PROGRAM STRUCTURE

The Fellowships will provide stipend support for up to **15** students per year to perform research with a qualified mentor and support to attend and present a poster at the National Veterinary Scholars Symposium (NVSS) the year they are selected. Funds must be used within 1 year of award.

Funds may be used for reasonable travel and accommodations associated with access to research sites. CVMs are responsible for matching potential applicants with a qualified mentor and selecting the most qualified student according to the program objectives described here. Research need not be performed at the student's home institution (please see above section on "exchange"). International projects are allowable if within the budget requirements.

Students will be required to participate in a roundtable discussion with other students organized by FFAR, as well as the NVSS. Fellows must attend the 2021 NVSS but may continue their research into the following year, if approved by their faculty mentor. All students must complete an AAVMC survey on their experience at the conclusion of the Fellowship. All funds should be used within 1 year of receipt.

FUNDING

Matching funds are not required for this program. FFAR funds will be provided at the start date of the award and must be used specifically for the designated student's stipend and support to attend the NVSS (registration, travel and accommodations, if applicable), and equipment or supplies for the student's project at the mentor's discretion. Funds may be used anytime within one year of the project start date; any remaining funds one year later must be returned. The AAVMC will disperse FFAR funds directly to one CVM per student selected. In the case of a student exchange, the student's home CVM directors are responsible for indicating whether these funds should be distributed to either the home or host institution.

FFAR will provide the following funds:

- $8,000 student trainee support per award (stipend and travel/registration)
- $2,000 research support per award (supplies and equipment)
- No matching funds required
- $10,000 total

Foundation for Food & Agriculture Research
2021 Veterinary Student Research Fellowships
Program Open for Applications March 3rd, 2021

I. NOMINATION SUBMISSION REQUIREMENTS
CVM Summer Program Directors are to answer the questions provided and submit their nominations via SM Apply by March 24th, 2021.

1. Institutional Contact Information
2. Additional Information: (For questions A and E-I complete using information from the Student's Home Institution, only)
    a. College of Veterinary Medicine:
    b. Student:
    c. Mentor:
    d. Mentor website:
    e. Program Director:
    f. Program Director email:
    g. Program Director phone:
    h. Program alternate contact:
    i. Program alternate contact email:

II. PROPOSAL SUBMISSION REQUIREMENTS
Fellowship Applicants are to work with their Mentors and/or Program Directors to answer the questions below and submit their applications via SM Apply by April 14th, 2021.

1. What are the research project hypothesis and objectives? (150 words)
2. How does the proposed research project address a major challenge in food and agriculture? (100 words)
3. Describe the student's career interests and aspirations. Why is the student interested in the proposed research topic? (150 words)
4. Is the student performing research with a mentor from their "Home" institution or with a mentor at a different, i.e. "Exchange," institution? Select one: Home / Exchange
5. Please describe whether the project will involve travel, in-person work or be conducted virtually, and any other logistics of which the reviewers should be aware. (100 words)
6. How will the student contribute to diversity in the veterinary profession? (100 words) [please see AAVMC's definition of diversity in the veterinary profession but note that other facets may also contribute to diversity, equity and inclusion).]
7. What are the relevant resources of the faculty mentor and host institution? (150 words)
8. What other (non-research) activities are planned? Briefly describe any extracurricular activities associated with the summer research program (e.g., journal clubs, research seminars, training workshops). (100 words)

SCORING RUBRIC:
Total 100 points

1. **Project Fit:** The project description must fit the RFP. Yes/No - **Not scored.**

2. **Student Merit:** The student is an excellent candidate for the Fellowship based on their career aspirations and potential for the research experience to have a positive impact on career (application questions 2-3). Preference will be given to students new to or early in their research career. **35 %**

3. **Diversity, Equity, and Inclusion:** Based on the student's response to questions 4-6, selecting this student would contribute to diversity, equity and inclusion by increasing under-represented viewpoints, perspectives and backgrounds, or racial, sexual, ethnic, socioeconomic or geographic diversity in the veterinary profession and/or agricultural sciences. **35 %**

4. **Host Advisor/Institution Merit:** The faculty mentor(s), host institution and relevant external collaborators/advisor(s) have a track record of success and the resources to support a student (application questions 4, 5 and 7). **20 %**

5. **Associated Activities:** The host institution and associated activities (e.g., journal clubs, research seminars, training workshops) will enhance the student's experience (application question 8). **10 %**