



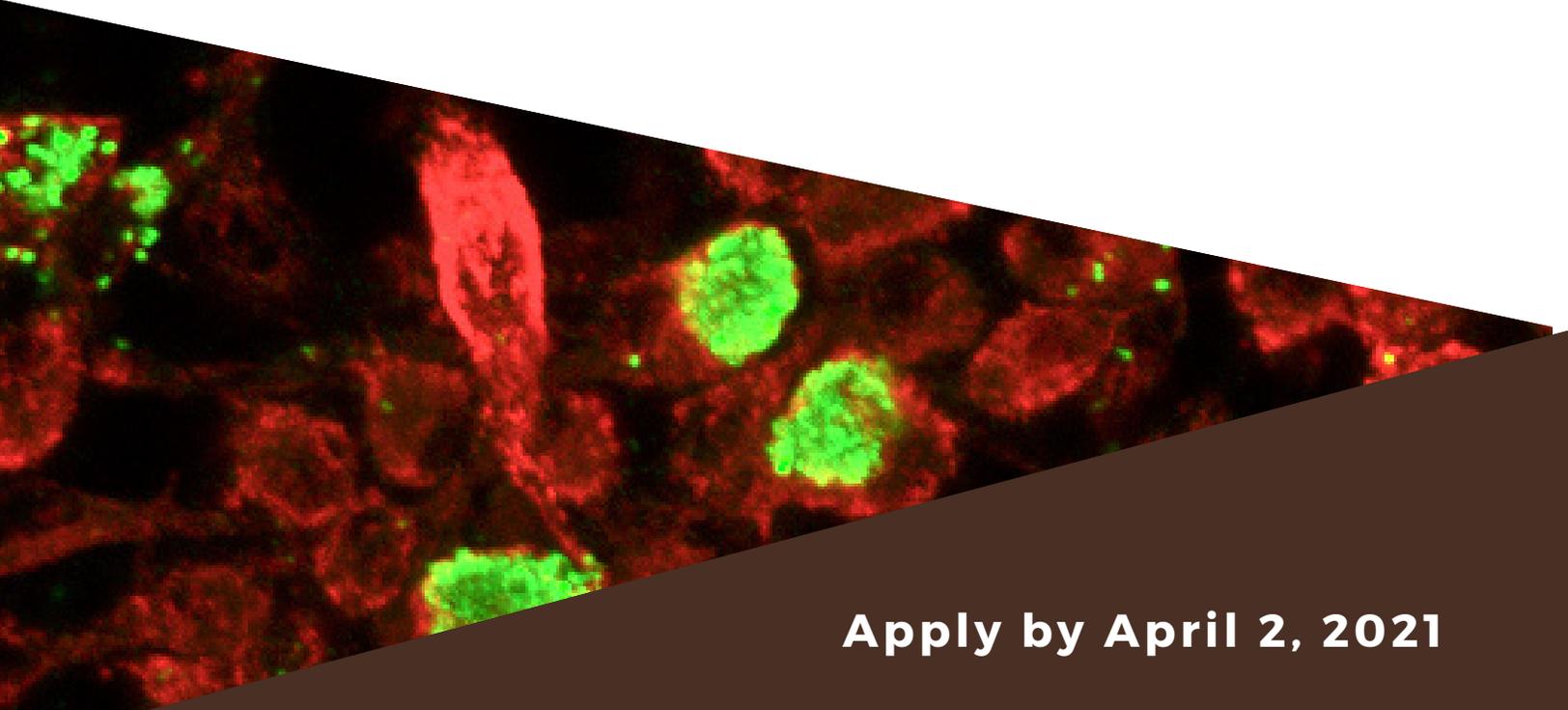
College of Agriculture
and Natural Resources
Veterinary Sciences

Graduate Student Opening

A fully funded Ph.D. graduate research assistantship, starting in Fall of 2021, is available in the Di Russo Case Laboratory in the Department of Veterinary Sciences at the University of Wyoming, Laramie.

We seek a highly motivated Ph.D. student to conduct research on the role of the cell wall in the virulence of *Coxiella burnetii*. The ideal candidate will have a BS and/or M.S. degree in biology, microbiology, cell biology, biochemistry or closely related discipline with a strong interest in bacterial pathogenesis, molecular biology, host-pathogen interactions, and cell-autonomous immunity.

Project Summary: *Coxiella burnetii* is the highly infectious causative agent of Q fever, which can manifest as an acute or debilitating chronic disease. This naturally obligate intracellular bacterium infects alveolar macrophages, replicating within a compartment that resembles a mature phagolysosome. The long-term goal of this project is to describe the molecular mechanism(s) by which the cell wall contributes to the intracellular pathogenesis of *Coxiella*. The role(s) of cell wall components in *Coxiella* pathogenesis will be defined by determining the functions of the candidate cell wall-related virulence genes and defining the effect of cell wall mutants on *C. burnetii*-host interactions. We will use multiple experimental approaches including complementation assays, biochemical, developmental and morphological analyses, and *in vitro* functional assays to define the contribution of these cell wall components to *Coxiella* survival. In parallel, we will investigate the response of macrophages to infection with these interesting cell wall mutants with transcriptional profiling and functional assays.



Apply by April 2, 2021



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For more information, please contact Dr. Elizabeth Di Russo Case, Assistant Professor of Veterinary Sciences at ecase2@uwyo.edu (<http://www.dirussocaselab.org>).

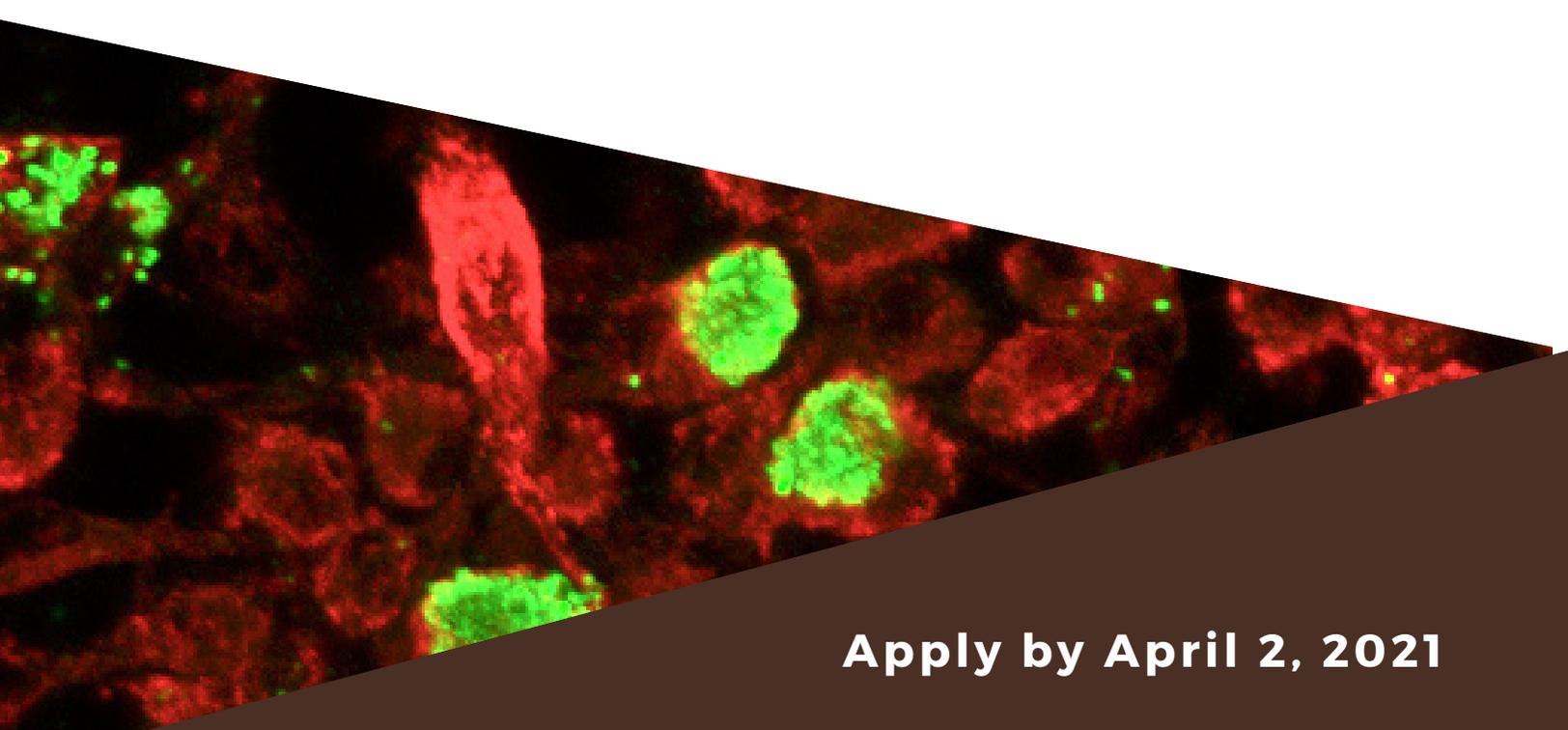
To apply, email Dr. Case with “Coxiella graduate assistantship” as the subject and include the following in a single pdf:

- 1) statement of interest
- 2) complete CV
- 3) unofficial transcripts
- 4) contact information for 3 references

International applicants also need to submit TOEFL or IELTS scores.

Please contact Dr. Case if you have any questions about the position. Applications (emailed pdf) will be reviewed as they arrive and given full consideration if received by April 2, 2021.

The University of Wyoming is an Equal Employment Opportunity/Affirmative Action employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability or protected veteran status or any other characteristic protected by law and University policy. Please see www.uwyo.edu/diversity/fairness.



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