

IBC COMMITTEE MINUTES

August 25, 2025
Virtual, 10:00 a.m.

MEMBERS' PRESENT

Primary:

	Name	College
X	**Cassandra (Dawn) Pauling	r/sNA molecules, Biosafety, Animal Containment
X	Selene Nikaido	r/sNA molecules, Plant Expert
	Deb Hudman	Community Representative/Non-Affiliate
	Rachelle Beattie	Community Representative/Non-Affiliate
X	Cori Brown	Laboratory Facility Representative
X	William Kirby	Laboratory Staff Representative
X	Sara Hoffman	Nursing
X	Christine Hood	Community Representative/Non-Affiliate-Local
X	Tiffany Klassen	Community Representative/Non-Affiliate-Local
X	**Kathy Schnakenberg	UCM Research Compliance Officer-Biosafety Adm (ex-officio)
	Tim Crowley	UCM Institutional Official-IO-(ex-officio)

****RCR Training Complete**

MEMBERS ABSENT: Deb Hudman-Rachelle Beattie

MINUTE TAKER: Kathy Schnakenberg

MINUTES

The minutes of 1/27/2025 were approved-**with**/without revision. Motion to approved made by Dawn and second- Selene. Approved with a vote of 6/0.

PROTOCOLS APPROVED FOLLOWING REVISION

[illegible]

Business Items

Topic	Discussion	Action	Vote
New member	Dawn introduced Christine	N/A	
Committee Expansion	Dawn is still working to obtain a committee member from WAFB	N/A	
BSL-2 Lab	Dawn gave an update on the lab progress-looking to remove slats and install a hepa filter	N/A	
Review	Reviewed list of approved protocols	N/A	
Expiration dates	Discussed that all protocol approvals would be for 3 years.	Kathy has updated the expiration dates in the database.	
AOB	PowerPoints for review		

PROTOCOLS REVIEWED BY COMMITTEE

PI Name and Title of Protocol: *Dawn Pauling, Investigating the Prevalence of Trypanosoma cruzi Infecting Missouri Mammals and Vectors in Johnson County, MO.*

Contact Information: pauling@ucmo.edu

Initial Review/ Continuing Review

Summary of Protocol:

Trypanosoma cruzi is a generalist parasite known to infect almost all major mammal taxa present in the Americas. *T. cruzi* is a genetically diverse parasite, with strains being classified into 7 discrete typing units (DTUs), which vary regarding drug susceptibility, primary reservoir species, and disease progression. Areas with active transmission to humans and between wild mammalian species are tied to the distribution of vector species of the hematophagous subfamily of assassin bugs, the Triatominae. In the eastern United States, transmission is primarily through the eastern conenose, *Triatoma sanguisuga*, and secondarily through *Triatoma lecticularia*, two closely related species notable for their generalist feeding habits. The highest *T. cruzi* infection rates are typically seen in insectivorous mammal species that become infected by ingesting infected triatomines and in fossorial species, especially rodents, whose sheltering habits increase their risk of parasitism by infected insects. Johnson County, Missouri, the study area, is notable for its diverse habitat types and abundant edge habitat, conditions known to increase triatomine dispersal rates and subsequent exposure risks in humans. Infections with *T. cruzi* can lead to severe health outcomes in infected humans, with cardiac and gastrointestinal complications being the most common. Gaining a better understanding of sylvatic transmission by identifying potential reservoir species and surveying triatomine infection rates and bloodmeal sources is crucial for guiding future management strategies to reduce spillover risk into humans.

Objective: This study aims to measure *Trypanosoma cruzi* infection rates across a diverse set of mammal species and vectors in Johnson County, Missouri, with a focus on identifying reservoir mammal species and developing a better understanding of the prevalence of *T. cruzi* in the two native kissing bug species *Triatoma sanguisuga* and *T. lecticularia*. DNA will be isolated from the midguts of triatomines and mammalian tissue samples and evaluated for the presence of parasite DNA using PCR. Positive samples will be further analyzed with PCR to identify DTUs present. This study aims to provide valuable insights into infection prevalence, species-specific risks, and the prevalence of different DTUs in an area where Chagas remains an understudied risk to public health. These objectives will be achieved through the following methods:

1. Vectors Surveillance: Vectors will be trapped and collected during peak activity seasons. Midguts will be dissected and analyzed via PCR to detect the presence of *T. cruzi* and to identify host species through bloodmeal analysis.
2. Identification of Mammalian Reservoirs: Tissue samples from donated specimens and euthanized trapped rodents will be used to screen for *T. cruzi* via PCR. Positive samples will be further analyzed to determine the DTU(s) present.

Specific Agent:

Associated risks:

Containment process and levels:

Involvement of r/sNA molecules:

Conflicts of Interest:
PI Biosafety Training: Current
<p>Discussion [for each, indicate if controverted and resolution if controverted] Please submit a copy of your IACUC approval letter with your revisions. Section 5: Project Summary-Provide less background information and expand on the actual research that will be done and how it will be conducted. Section 5: Risk Assessment-Define Volunteers in response #1 and in response #3 include all chemicals (Isoflurane). Section 5: Biological Waste Disposal-Explain how the liquid and solid waste will be autoclaved and how the carcasses will be disposed. Section 6: Animal-Derived Materials-Are the materials known to contain an infectious agent? Here it is marked no but on the registration form it is marked yes, please be consistent through the application. Section 6: Potentially hazardous chemicals...Change response to Yes and complete the next section by listing the chemicals to correspond with the application. Registration Form: Agent or Material Information-uncheck Pathogenic and check Other Potentially Infectious Materials (OPIM). Microorganism: Correct room number to WCM 316, remove volume listed. Is the organism inactivated prior to use? Change response to No, then uncheck Heat & Chemical Answer-Will the agent be concentrated? Answer-Are cultures, stocks, and contaminated... Animal blood, cell lines, and/or tissues-House mouse-correct Musc to Mus and ensure the question on infectious agents is consistent with the rest of the application. OPIM-Move blood and hindgut material from triatomine bugs to here Check 10% bleach to be consistent with the rest of the application Pathogen Risk Assessment: Laboratory Hazards-Update with more recent stats if they are available.</p>
Documentation of Findings
<p>Motion Selene Second Cori <u>Description of Motion:</u> Selene made a motion to approve the application with revisions back to Will Kirby for review.</p> <p>Dawn Pauling recused herself from this protocol review.</p> <p><u>Vote (For, Against, Abstain):</u> Motion Passed/Failed 5-0-1, Total Voting = 5</p>

PROTOCOLS REVIEWED BY COMMITTEE

PI Name and Title of Protocol: *Nick Barts, Examining the presence of human-transmissible disease in raccoon (Procyon lotor) latrines*

Contact Information: barts@ucmo.edu

Initial Review/ Continuing Review

Summary of Protocol:

The proposed work aims to find changes, if any, in the presence of human-transmissible pathogens within raccoon (*Procyon lotor*) latrines across different land cover types. *Baylisascaris procyonis*, *Leptospira interrogans*, and *Giardia intestinalis* cause zoonotic disease as raccoon roundworm, leptospirosis, and giardiasis, respectively. Deaths from all three diseases are rare in developed countries, but their causative agents are present throughout urban and rural landscapes due to the synanthropic nature of their reservoirs. Raccoons are the definitive host and reservoir for *B. procyonis* and a significant reservoir for most environmentally spread diseases due to their high use of latrines. They are also beginning to become a global reservoir as invasive populations spread across Europe and Asia. Changes specific to *B. procyonis* across different land cover types have been previously researched, with conflicting results finding higher, lower, and no change in disease prevalence and egg counts between land cover types. Studies indicating higher prevalence in urban areas cite changes in diet as a possible factor, but no study has compared prevalence to diet within the same sites. This study aims to:

1. Determine if and how raccoon roundworm, leptospirosis, and giardiasis pathogens are affected along an urban to rural transect as determined by impervious surfaces.
2. Compare trends in raccoon roundworm prevalence to raccoon diet and discuss results in relation to previous studies.
3. Compare the cities of Kansas City and St. Louis for changes in disease trends to inform current local management styles.

Specific Agent:

Associated risks:

Containment process and levels:

Involvement of r/sNA molecules:

Conflicts of Interest:

PI Biosafety Training: Current

Discussion [for each, indicate if controverted and resolution if controverted]

If the cost of processing the cultures will prevent this process from occurring, please remove all references to it from the application.

Page 1: Please complete the check boxes at the bottom of the page and top of page two.

Page 4: Check N/A on the 3 boxes following the Name of virus.

Section 5: Project Summary-Provide less background and expand more on the research and how it will be conducted.

Experimental Design: Provide more information on how the hair will be collected and indicate if it is being sent out for analysis and what it is being analyzed for.

Risk Assessment: Include pathogen (fecal material & latrines)

Biological Waste Disposal: Explain that a bench liner will be used as a containment method for all fecal material.

Section 6: Human-Derived Materials-answer N/A

Section 10: List of completion dates for Nick Barts for CITI-EHS-Lab training.

Section 11: Remove all reference to room numbers 311 & 320-only room 316 is available for this research.

Registration Forms-Ensure that all registration forms have only room 316 listed for lab and storage locations throughout the form.

Agent or Material Information-Uncheck Pathogenic and check OPIM-check this on all registration forms.

Microorganism-Baylisascaris procyonis-Does the organism produce a toxin? Change response to No. Correct room numbers and if you are not culturing remove volume at the top of page two.

Safety measures-application refers to the use of safety goggles and face mask-so Safety Goggles and Other should both be checked.

Giardia duodenalis-Check for issues listed above and only check one response on the question-Does the organism produce a toxin?

Remove volume at the top of page two. Change PPE to be consistent with above on page three.

Move the statement on (QATS)-6% hydrogen peroxide, or steamer to the registration form for Baylisascaris procyonis.

Leptospira interrogans-Check for issues listed above - under disinfectant also check 10% bleach.

Unhighlight the word signature.

Pathogen Risk Assessment: Baylisascaris procyonis-Hazard Identification-Expand on hazards specific to humans. Resolve all grammatical errors.

Infectious dose-Clarify minimal exposure for infection.

Susceptibility to disinfection-Remove second line-only need what is specific to the pathogen not lab.

Protective clothing-this should be consistent with PPE marked throughout the application.

Pathogen Risk Assessment: Giardia duodenalis-Physical Inactivation-Change the word moist to moist.

Pathogen Risk Assessment: Leptospira interrogans-Infectious Dose-Remove line on lethal dose for hamsters. Expand the minimum dose for humans.

<p style="text-align: right;">Communicability-Indicate in the last sentence what bites?</p> <p>Who is doing the biting?</p>
<p>Documentation of Findings</p>
<p>Motion Selene Second Cori <u>Description of Motion:</u> Selene made a motion to approve with revisions to the chair</p> <p><u>Vote (For, Against, Abstain):</u> Motion Passed/Failed 6-0-0, Total Voting = 6</p>

Meeting adjourned at ____11:34 a.m._____