



DEPARTMENT OF THE ARMY  
HEADQUARTERS, U.S. ARMY MEDICAL RESEARCH AND MATERIEL COMMAND  
810 SCHREIDER STREET  
FORT DETRICK, MARYLAND 21702-5000

May 3, 2019

(b) (6)

Assistant Vice Chancellor for Research, Office of Research

(b) (6)

Columbia, Missouri 65211

Dear (b) (6)

(b) (6) Director, and (b) (6) Manager, Animal Care and Use Review Office, Office of Research Protections, U.S. Army Medical Research and Materiel Command, conducted a site visit to the University of Missouri on March 28, 2019 to evaluate the animal care and use program and the animal care facilities. Participating individuals and results of the site visit are outlined in the enclosed checklist. Suggestions for improvement are offered in the absence of regulatory or guideline standards. These "best practices" are methods the staff observed to work well within other programs/facilities and are offered for the institute's consideration.

This AAALAC International-Accredited Animal Care and Use Program is compliant with federal Animal Welfare Regulations and the recommendations of the Guide for the Care and Use of Laboratory Animals (Institute for Laboratory Animal Research). The staff were professional and knowledgeable. The strong collegial culture at the institute was impressive.

The Animal Care and Use Review Office recommends continued funding of the supported animal research to appropriate Department of Defense agencies.

The point of contact for this action is the undersigned at (b) (6) or (b) (6)

Sincerely,

(b) (6)

Director, Animal Care and  
Use Review Office

Enclosure  
CC (w/encl):

(b) (6) [REDACTED] Director of Animal Care Quality Assurance  
(b) (6) [REDACTED] University of Missouri  
(b) (6) [REDACTED] University of Missouri  
(b) (6) [REDACTED] University of Missouri  
(b) (6) [REDACTED] IACUC, University of Missouri  
(b) (6) [REDACTED] University of Missouri



## COMPONENT OVERSIGHT OFFICE (COO) VISIT CHECKLIST

Site/Visit Type:	Site Visit	Site Visited:	University of Missouri
Date(s) Of Visit:	28 March 2019	Award and Protocol #:	(b) (4)
Award PI Name:	(b) (6)	Awarded Organization:	University of Missouri Columbia University
Funding Agency:	CDMRP	Species Approved:	Canine
Protocol PI Name:	(b) (6)	Site Visitors:	(b) (6)
Protocol Title:			

## I. Names and titles of personnel present at in- and out-brief:

NAME	TITLE OR DEPARTMENT
(b) (6)	Director of Animal Care Quality Assurance (ACQA)
	Attending Veterinarian
	Protocol PI
	Program Manager

## II. IACUC Membership and Function:

	A	MD	SD	N/A
a. Appropriate constitution (at least 5 required members, or 3 required members if not PHS Assured)	X			
b. Non-affiliated members (NAM) attend meetings regularly	X			
c. Member appointments available and current	X			
d. IACUC member training program in place	X			
e. Appropriate documentation of IACUC training for all members to include alternates		X		
f. Mechanism in place for reporting welfare concerns	X			
g. IACUC function document (SOP/Policy/Instruction)	X			
h. Instructions for reporting concerns prominently displayed throughout the facility	X			
i. Reported concerns were well investigated by the IACUC	X			

<sup>1</sup> A-acceptable

MD- minor deficiencies

SD- significant deficiencies



## COMPONENT OVERSIGHT OFFICE (COO) VISIT CHECKLIST

n. Adverse events, violations, and animal welfare concerns reported to COO and documented in file				X
j. If part-time AV, written program of veterinary care including regularly scheduled visits to the facility				X
<b>INTRAMURAL SITES ONLY</b>				
k. IACUC has at least 1 regular and 1 alternate NAM				X
l. Documentation of approved waivers from COO for any IACUC meeting where a NAM isn't present				X
m. IACUC training records include the 8 hours of required training for all members and alternates				X
<b>Comments:</b> e. Three IACUC members (identified during the visit), have no documented completion of required (b) (4)				

**III: IACUC Minutes and Protocol Review:**

	A	MD	SD	N/A
a. Attendance records maintained either in minutes or elsewhere	X			
b. Quorum present at each meeting	X			
c. Minutes demonstrate IACUC business other than protocol review	X			
d. Documentation in minutes or elsewhere of protocol review details	X			
e. Dissenting opinions included and explained	X			
f. IACUC documents and protocol records maintained for at least 3 years	X			
g. Protocols contain sufficient detail	X			
h. Annual protocol reviews conducted and documented	X			
i. Scientific justification for exceptions to AWARs and the Guide present in applicable protocols	X			
j. COO approval documents included in protocol files	X			
k. Appropriate keywords used for databases searched	X			
<b>INTRAMURAL SITES ONLY</b>				
l. Required database searches for duplication				X
m. Protocol coversheet contains all required signatures				X
n. Protocols written in current DoD standardized format				X
Dates of minutes reviewed: January- December 2018, January 2019				
<b>Comments:</b> Minutes are well written and provide an excellent illustration of IACUC oversight of the entire animal program as well as continuing education presented at meetings on a regular basis.				

<sup>1</sup> A-acceptable

MD- minor deficiencies

SD- significant deficiencies





## COMPONENT OVERSIGHT OFFICE (COO) VISIT CHECKLIST

**IV: Semi-Annual Facility Inspection and Program Review (FIPR):**

	A	MD	SD	N/A
a. FIPRs conducted and reports generated at least every six months	X			
b. At least two members participated in every area of the FIPR	X			
c. Non-affiliated member participation	X			
d. Deficiencies appropriately classified as minor or significant	X			
e. Report includes a reasonable and specific plan for correction of each deficiency with correction deadlines	X			
f. Individual responsible for correction of each deficiency identified	X			
g. Report identifies all locations visited during the facility inspection and areas of the program reviewed	X			
h. Departures from the provisions of the AWARs and the Guide are identified and justified	X			
i. Minority opinions are addressed	X			
j. Reports are signed by majority of IACUC members	X			
k. Documentation indicating reports are forwarded to IO	X			
Dates of FIPR reports reviewed: 6/17, 12/17, 6/18				
<b>Comments:</b> Inclusive clear correction plans were included with reports with detailed descriptions of corrections as well as a clear listing of all AWAR departures.				

**V: General:**

	A	MD	SD	N/A
a. Up-to-date listing of all SOPs, including most recent review date in accordance with SOP	X			
b. Comprehensive Disaster Plan in place that covers animal disposition and prioritization?	X			
c. Disaster Plan identifies essential personnel	X			
d. Disaster Plan part of the institution's overall emergency response program	X			
e. Comprehensive occupational health and safety (OHSP) plan in place	X			
f. All staff members, to include contractors, evaluated as part of the OHSP. If not, procedures are in place to ensure individuals not included in the OHSP have alternative means of evaluation	X			



## COMPONENT OVERSIGHT OFFICE (COO) VISIT CHECKLIST

g. Acceptable Psychological Well-Being Plan for NHPs in place, if applicable				X
h. Acceptable Exercise Plan for Dogs in place, if applicable	X			
i. Environmental Enrichment Plan covers for all species	X			
j. Mechanism in place to assure all protocol personnel have been trained to perform their role	X			
k. Training records match the training requirements of the institution and IACUC	X			
<b>Comments:</b> General: The IACUC must be sure to document all recommendations made to PI or actions taken to address animal welfare concerns within the context of the (b) (4)				

## V. FUNDED ANIMAL WORK:

EXTRAMURAL SITES ONLY	A	MD	SD	N/A
a. Observed animal procedures are being performed as reviewed and approved by ACURO	X			
b. All personnel performing animal procedures approved in the IACUC protocol	X			
c. All changes to the protocol been reviewed and approved by the local IACUC	X			
d. All changes to the protocol been approved by ACURO	X			
<b>Comments:</b>				

## VETERINARIAN REVIEW:

I. PHYSICAL ENVIRONMENT	A	MD	SD	N/A
a. Microenvironment and Macroenvironment	X			
b. Housing	X			
c. Space Recommendations	X			
d. Temperature and Humidity	X			
e. Ventilation	X			
f. Illumination	X			
g. Noise/Vibration	X			
<b>Comments:</b>				

<sup>1</sup> A-acceptable

MD- minor deficiencies

SD- significant deficiencies



## COMPONENT OVERSIGHT OFFICE (COO) VISIT CHECKLIST

II. BEHAVIORAL MANAGEMENT	A	MD	SD	N/A
a. Structural Environment	X			
b. Social Environment	X			
Comments:				

III. HUSBANDRY	A	MD	SD	N/A
a. Food	X			
b. Water	X			
c. Bedding				X
d. Sanitation	X			
e. Waste Disposal	X			
f. Pest Control	X			
g. Emergency, Holiday, and Weekend Care	X			
Comments:				

IV. POPULATION MANAGEMENT	A	MD	SD	N/A
a. Identification and Records	X			
b. Genetics and nomenclature	X			
Comments:				

V. ANIMAL PROCUREMENT AND TRANSPORTATION	A	MD	SD	N/A
a. Quarantine, Stabilization, and Separation	X			
b. Surveillance, Diagnosis, Treatment, and Control of Disease	X			
Comments:				

VI. VETERINARY MEDICAL CARE	A	MD	SD	N/A
a. Preventive Medicine	X			
b. Surgery	X			
c. Facilities for Aseptic Surgery	X			
d. Pain, Analgesia, and Anesthesia	X			
e. Euthanasia	X			
Comments:				

VII. FUNCTIONAL AREAS	A	MD	SD	N/A
a. Corridors	X			
b. Animal Room Doors	X			
c. Exterior Windows	X			
d. Floors	X			

<sup>1</sup> A-acceptable

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## COMPONENT OVERSIGHT OFFICE (COO) VISIT CHECKLIST

e. Drainage	X			
f. Walls	X			
g. Ceilings	X			
h. Heating, Ventilation, and Air Conditioning (HVAC)	X			
i. Power and Lighting	X			
j. Storage Areas	X			
k. Noise Control	X			
l. Facilities for Sanitizing Materials	X			
<b>Comments:</b>				

<sup>1</sup> A-acceptable

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