



Inspection Report

University Of California-Berkeley
119 California Hall
Berkeley, CA 94720

Customer ID: 9191

Certificate: 93-R-0432

Site: 001

UNIVERSITY OF CALIFORNIA, BERKELEY

Type: FOCUSED INSPECTION

Date: 01-AUG-2017

2.38(f)(1) CRITICAL REPEAT

MISCELLANEOUS.

On 6/30/17 it was discovered that two bats had died after being mistakenly left in a transport enclosure the week before, after a routine health check. The facility had already self-reported this incident to USDA, and corrective measures have already been taken to help prevent a recurrence.

While reviewing the meeting minutes of the Institutional Animal Care and Use Committee (IACUC) regarding the bat incident, it was discovered that a ten year old Rhesus macaque monkey, with ID (b) (6), (b) (7)(C) was treated for a serious toe injury on 2/8/17 after escaping from his primary enclosure. Staff reports that during a routine room cleaning procedure, the two banks of enclosures in the room were left in close proximity to each other, so that another macaque was able to reach across and unlatch # (b) (6), (b) (7)(C) door. This latch would have normally been out of reach to the animals. # (b) (6), (b) (7)(C) then climbed on top of the enclosure of another macaque, which severely bit the escaped animal's toe. (b) (6), (b) (7)(C) received prompt appropriate veterinary care, and the toe was amputated. Steps have been taken to retrain employees to prevent a recurrence. (b) (6), (b) (7)(C) has fully recovered from the incident and ambulates normally.

Failure to ensure appropriate handling of animals can result in pain and distress, injury, and/or death. Handling of all animals shall be done as expeditiously and carefully as possible in a manner that protects the animals from harm. The facility must continue to ensure that steps are taken and standard operating procedures are developed and followed in order to minimize the risk of handling incidents such as these.

This was a focused inspection on bats on study at the facility, and one Rhesus macaque monkey.

Prepared By:

SMITH PAMELA, D V M USDA, APHIS, Animal Care

Date:

07-AUG-2017

Title: VETERINARY MEDICAL OFFICER 6036

Received By:

(b) (6), (b) (7)(C)

Date:

07-AUG-2017

Title:
19-03975_000006



Inspection Report

This inspection and exit interview were conducted with the facility representatives.

Inspection occurred on 8/1/17 (Smith & Schnell) and 8/4/17 (continuation of inspection and exit interview - Smith).

Additional Inspectors

Schnell Michael, Veterinary Medical Officer

Prepared By:

SMITH PAMELA, D V M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 6036

Date:

07-AUG-2017

Received By:

(b) (6), (b) (7)(C)

Title:
19-03975_000007

Date:

07-AUG-2017



Cust No	Cert No	Site	Site Name	Inspection
9191	93-R-0432	001	UNIVERSITY OF CALIFORNIA-BERKELEY	01-AUG-17

Count	Species
000001	RHESUS MACAQUE
000350	EGYPTIAN FRUIT BAT
000351	Total



CFR : 2.38(f)(1)

Photographer: P SMITH

Date and Time: 04-AUG-17 3:19 PM

Inspection No: 2016082568679845

Description:

Enclosure fasteners for macaques in room where escape that resulted in injury occurred.

Certificate: 93-R-0432

Legal Name:

**UNIVERSITY OF
CALIFORNIA-BERKELEY**



CFR : 2.38(f)(1)

Photographer: P SMITH

Date and Time: 04-AUG-17 3:25 PM

Inspection No: 2016082568679845

Description:

Affected macaque # (b) (6), (b) (7)(C) right foot where toe was amputated has healed.

Certificate: 93-R-0432

Legal Name:

UNIVERSITY OF
CALIFORNIA-BERKELEY



CFR : 2.38(f)(1)

Photographer: P SMITH

Date and Time: 04-AUG-17 3:25 PM

Inspection No: 2016082568679845

Description:

Affected macaque [REDACTED] - in its enclosure. Amputated digit has healed.

Certificate: 93-R-0432

Legal Name:

**UNIVERSITY OF
CALIFORNIA-BERKELEY**



CFR : 2.38(f)(1)

Photographer: PROVIDED BY FACILITY - COPIED BY P SMITH

Date and Time: 04-AUG-17 -

Inspection No: 2016082568679845

Description:

IACUC Meeting Minutes from 4/12/17 where the bat and NHP incident are discussed.

Certificate: 93-R-0432

Legal Name:

**UNIVERSITY OF
CALIFORNIA-BERKELEY**

MINUTES
Animal Care and Use Committee (ACUC)
April 12, 2017
Office of Research Administration and Compliance
[REDACTED]
[REDACTED] Conference Room [REDACTED]

Voting Members		Present	Absent
(b) (6), (b) (7)(C)	Dept. of Molecular and Cell Biology (b) (6), (b) (7)(C)	✓	
(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C) (b) (6), (b) (7)(C) Office for Laboratory Animal Care (OLAC)	✓	
Dr. 101, Director, Research Subject Protection		✓	
Professor 104, Dept. of Environmental Science, Policy, and Management			✓
Mr. 122, Nonscientist and Nonaffiliated Community Member		✓	
Dr. 202, Campus Veterinarian, OLAC		✓	
Professor 107, Department of Optometry		✓	
Ms. 123, Nonaffiliated Community Member		✓	
Professor 118, Department of Molecular and Cell Biology		✓	
Professor 109, Department of Psychology		✓	
Professor 110, Department of Integrative Biology, Vice Chair		✓	
Professor 116, Department of Integrated Biology			✓
Professor Emeritus 124, Nonscientist Member		✓	
Professor 121, Department of Molecular and Cell Biology		✓	
Professor 113, Department of Nutritional Sciences and Toxicology		✓	
Mr. 115, Graduate Student, Department of Chemistry		✓	
Alternates			
Dr. 203, Campus Veterinarian, OLAC		✓	
Ms. 403, Research Compliance Analyst		✓	
Invited Liaisons and Guests			
Mr. 303, Interim Associate Vice Chancellor for Research		✓	
Ms. 306, Environment, Health & Safety		✓	
Dr. 301, University Health Services, Occupational Health		✓	
Mr. 326, Visiting Veterinarian Student		✓	
Office for Animal Care and Use (OACU) Staff			
Ms. 401, Research Compliance Analyst		✓	
Ms. 402, Research Compliance Analyst		✓	
Ms. 404, Research Compliance Analyst		✓	

d. Annual Continuing Reviews Approved

Principal Investigator	Protocol ID
[REDACTED]	AUP-2015-06-7658
[REDACTED]	AUP-2016-02-8338
[REDACTED]	AUP-2015-10-8080
[REDACTED]	AUP-2015-01-7066**
[REDACTED]	AUP-2016-01-8268
[REDACTED]	AUP-2015-05-7622**
[REDACTED]	AUP-2015-06-7700**

**Includes USDA-covered species

Discussion Items

1. Compliance Incidents

a. Bat Incident

The committee discussed the report of one bat that was found dead on 2/6/2017. Surgery was performed by the PI on 2/5/17 on a colony-born animal. The procedure was performed per protocol and without complications intra- as well as immediately post-operatively. However, the animal was found dead the following morning. The PI immediately notified the clinical veterinarian and submitted a fixed body for examination. The necropsy report indicated that the bat showed signs of pulmonary congestion and edema, but no evidence of aspiration. After discussion, the committee determined that no further action was needed.

b. NHP Incident

The committee discussed the report of a non-human primate (NHP) that escaped its primary enclosure on 2/8/2017 during routine cage change. An animal in an adjacent cage was able to remove the door clip and let the animal out of its home cage. While the escaped NHP was perched on top of an adjacent cage in the room, the animal inside the cage wounded it. The escaped animal was easily coaxed back to its home cage, and subsequently sedated for examination and treatment. The NHP Husbandry Standard Operating Procedure (SOP) was reviewed and updated to indicate two staff will perform NHP cage change and an alternate clip is to be used during cage change. The NHP has fully recovered. After discussion, the committee agreed that appropriate steps have been taken to ensure a similar incident will not happen in the future, and no further action was needed.

c. Mouse Anesthesia Incident

The committee discussed the report of a researcher who left an anesthetized mouse unattended for at least five minutes. No surgical procedure had been started. OLAC veterinary staff monitored the mouse until the researcher returned. The researcher has been retrained. The committee expressed concern since this was the second report of mice left unattended while under anesthesia for this lab despite retraining after the first occurrence. The committee agreed that the Chair would write a letter to the PI indicating that if another similar incident occurs, the committee would consider taking further corrective action, up to and including suspending activities involving anesthesia.

d. Gecko Incident

The committee discussed the report of a gecko that was found loose in room by OLAC staff. During the course of attempting to capture the gecko, an OLAC staff member accidentally dropped a metal floor grate on gecko, instantly killing it. The OLAC Supervisor covered the floor grate to prevent animals from entering area under the grate. Additional weights were placed on the lids of the tanks to prevent geckos from escaping. After discussion, the committee agreed



CFR : 2.38(f)(1)

Photographer: PROVIDED BY FACILITY - COPIED BY P SMITH

Date and Time: 04-AUG-17 -

Inspection No: 2016082568679845

Description:

Medical records showing the serious animal welfare impact including delayed healing following digit amputation resulting from escape on macaque # (b) (6), (b) (7)(C)

Certificate: 93-R-0432

Legal Name:

**UNIVERSITY OF
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INVESTIGATOR [REDACTED] ADDRESS [REDACTED] PHONE [REDACTED]
ANIMAL # [REDACTED] SPECIES NHP BREED M. mulatta COLOR [REDACTED] SEX M AGE [REDACTED]
PAID ☐ ALTERED ☐ BIRTHDATE: 5/13/07 DATE OF ARRIVAL: 6/8/12 PROTOCOL # [REDACTED]

DATE	APP.	B.M.	Tmp.	INITIALS
11/5/17			0830	
S: Sedated for radiographs and bandage change. BAR prior to sedation.				
Ketamine: 43.2mg				
Dexmed: 0.11mg				
Midazolam: 2.7mg				
} 14 SID				
D: Wt = 10.3 Kg BCS = 3/5 Good				
T: 100.8 P: 80 R: 11e				
Integ/MS: Wound site vastly improved. Clean + dry w/ no discharge. Swelling + erythema greatly reduced. Digits still mildly swollen. No evidence of fx on lat + VD rads. Few sutures remain between digits.				
A: 1) Wound - post amputation of D4 on right foot. Rule out: abx resistance to initial therapy.				
2) Otherwise healthy on limited PE.				
P: Collected ~4uLs of blood from left femoral vein for Chem + CBC. Performed lateral + v/D rads of right tarsus. Soaked foot in sterile saline + epsom salt bath. Administered:				
Buprenorphine: 0.03mg/Kg (0.3mg, 1.0mL) IM				
Meloxicam: 0.1mg/Kg (1.0mg, 0.2mL) IM				
Cefazolin: 25mg/Kg (270mg, 1.4mL) IM				
Enrofloxacin: 10mg/Kg (100mg) IV				
Replaced honey bandage. Plan to replace again in 2 days. Rx:				
Continue Cefazolin/cephalexin BID, enrofloxacin SID, meloxicam SID, and buprenorphine/tramadol PRN. Culture still pending. Reversed w/ 0.3mL atipamezole IM. Recovered in home cage.				

University of California, Berkeley - Office of Laboratory Animal Care

Investigator: [redacted] Species/Breed: M. mulatta Sex: M
 Animal #: [redacted] Date of Birth: 5/13/07 Date of Arrival: 6/8/12

date	time		initials
2/13/17	(cont)	<p>A: Previously noted wound to right foot - amp site slow to heal. Rule out patient noncompliance, abx resistance, fx.</p> <p>P: Administered: meloxicam (1.0mg, 0.7ml SQ) buprenorphine (0.3mg, 0.2ml IM) Cefazolin (270mg, 1.4ml IM) Enrofloxacin (100mg, 1.0ml IV)</p> <p>Cleaned wound site w/ Chlorhex + alcohol. Flushed and soaked w/ dilute betadine in sterile saline. Massaged tarsus. Culture collected prior to cleaning to rule out abx resistance. Added enrofloxacin for additional coverage. Plan to maintain in bandage until wound bed granulates more completely. Honey bandage applied to R foot. Plan to change bandage and take radiographs on 2/15/17 to rule out fx.</p> <p>Rx: buprenorphine 0.03mg/kg on 2/13/17 tramadol 3-5mg/kg PO PRN. meloxicam 0.1mg/kg PO SID x 2d. Cephalexin 25mg/kg PO BID enrofloxacin 10mg/kg IM SID</p> <p>Await culture results to determine duration of abx therapy. Amputation site should heal via second intention. Consider adding Epsom soak during bd. changes.</p>	[redacted]
2/13/17	8:00am	QAR. Bandage intact.	
2/14/17	8:30am	<p>Quiet. Bandage intact. Moving in cage normally. Refused PO medication x fruit, treats. Meloxicam 1.0mg IM. Cefazolin 270mg IM. Enrofloxacin 100mg IM. Buprenorphine 0.3mg IM.</p>	
2/14/17	6:45am	QAR. Cephalexin 375mg PO. Tramadol 50mg PO per DVM.	

University of California, Berkeley - Office of Laboratory Animal Care

Investigator: [REDACTED]

Species/Breed: m. mulatta sex: M

Animal #: [REDACTED]

Date of Birth: 5/13/07

Date of Arrival: 6/1/12

date	time		initials
2/8/17	7:30pm	BAR. Cefazolin 270 mg IM, Buprenorphine 0.3 mg IM. Accepting treats readily.	[REDACTED]
2/9/17	8:25A	BAR. Bandage intact. Buprenorphine 0.3mg IM, Cephalexin 375mg PO, Meloxicam 1.1mg PO.	
2/9/17	9:45pm	BAR. Bandage intact. Buprenorphine 0.3 mg IM, cephalexin 375 mg, PO.	
2/10/17	8:30A	BAR. Bandage intact. 375mg cephalexin P.O. Meloxicam 1.1mg P.O. 0.33mg buprenex IM.	
2/10/17	8:15p	BAR. Bandage intact. 375mg cephalexin P.O.	
2/11/17	8AM	BAR. Bandage intact 375mg cephalexin P.O. 1.1mg Meloxicam P.O.	
2/11/17	7:30p	BAR. Bandage intact. 375 mg cephalexin P.O. (w/ Apple)	
2/12/17	8:30am	375mg cephalexin PO, 1.1mg meloxicam PO	
2/12/17	6:30pm	Cephalexin 375 mg PO	
2/13/17	8:30	cephalexin 375mg PO	
2/13/17	11:30am	DVM + AHT able to remove bandage cage side without sedation. Sutures intact. Mild erythema & swelling. Chewing at sutures immediately. Elect to administer buprenorphine (0.3mg, 1.0ml) IM. May require additional analgesia in PM. Continue to monitor.	[REDACTED]
3/13/17	1700	S: Reported for Chewing at Suture Site Elect to sedate for bandage replacement. Ketamine: 43.2mg Dexmedetomidine: 0.11mg Midazolam: 2.7mg O: WT = 10.4 Kg T: 10H P: 128 R: 20. Insg/MS: R tarsus mid-moderately swollen. When on palpation Amputation site appears partially dehiscent. No discharge, tissue edges partially apposed. Some sutures still present.	(Cont.)

University of California, Berkeley - Office of Laboratory Animal Care

Investigator: [REDACTED]

Species/Breed: M. musculus M.

Animal #: [REDACTED]

Date of Birth: 5/13/07

Date of Arrival: 6/8/2012

date	time		initials
2/8/17	(cont.)	Cage. BAR prior to sedation. Ketamine: 41.6mg Dexdomitor: 0.116mg Midazolam: 2.6mg } IM SID.	
		O: T: 100.8 P: 120 R: 16 Wt = 10.8 Kg Integ/MS: Fresh wound to right hind limb, digit 4 partially disarticulated at metacarpal and first phalanx joint.	
		A: 1) Wound to right foot from conspecific during cage change. 2) Otherwise healthy on brief exam.	
		P: Clipped & cleaned wound site. Flushed w/ dilute betadine. Freshened skin edges w/ #10 scalpel blade. Amputated D4 on right foot at metacarpal/phalanx joint. Apposed skin edges between D3 and D5 w/ 3-0 monocril in simple interrupted pattern. Soft foot bandage applied to right foot to keep site clean and dry during initial recovery period. Administered: meloxicam 0.2mg/kg (0.4ml, 2mg) SQ SID and buprenorphine 0.03mg/kg (0.3mg, 1.0ml). Plan to monitor for removal of bandage and then sutures thereafter. Plan to administer buprenorphine IM BID x 2d, meloxicam 0.1mg/kg PO x 5d. SID, and cefazolin or cephalexin 25mg/kg IM or PO (270mg IM or 375mg PO) x 7d. Recovered in home cage.	
2/8/17	2:00p.	Buprenorphine 0.11mg IM	

Investigator [REDACTED] Species/Breed M. mulatta
Animal # [REDACTED] Date of Birth 5/13/2007 Date of Arrival 6/8/2012

date	temp	wt	initials
3/8/16		(Cont)	
		O: T: 101.0 P: 76 R: 20	
		Tongue: wnl CRT: < 2 sec mm = p/m	
		WT = 10.4 Kg BCS = 3/5 (Excellent)	
		Oral: wnl	
		Integ: See alopecia Chart - improved	
		Abd: wnl	
		Thorax: wnl	
		EENT: wnl	
		M/S: muscle mass of L quad remains slightly smaller than R quad.	
		PLN: wnl	
		W/G: (including bimanual): wnl	
		A: 1) Mild alopecia ~ 6%	
		2) Otherwise apparently healthy on PE.	
		P: Collected ~ 1 ml of blood from L femoral vein for Chem + CBC.	
		Administered TB test P eye.	
		Plan to recheck SID x 3d.	
		Clipped, cleaned Cranial implant margins. Plan to increase biscuits in PM to 10 (Currently 8 BID).	
		Reversed in home cage w/ atipamizide 0.3 ml IM SID. Recovered uneventfully.	
3/9/16	0830	TB test check: 0 score wnl.	[REDACTED]
3/10/16	745	TB test check: 0/5 no sign of reaction	[REDACTED]
3/11/16	830	TB test check: 0/5 no sign of reaction	[REDACTED]
2/8/17	0900	S: Sedated for examination after being loose in room during regularly scheduled cage change. Observed toe injury once back in home (cont.)	

University of California, Berkeley - Office of Laboratory Animal Care

Investigator: [REDACTED]

Species/Breed: *M. musculus* sex: M

Animal #: [REDACTED]

Date of Birth: 5/13/07

Date of Arrival: 6/8/12

date	time		initials
2/15/17	7:30 am	Cephalexin 375 mg PO.	[REDACTED]
2/16/17	9:00 am	270mg cefazolin IM, 108mg enrofloxacin IM, 1.1mg meloxicam IM.	
2/16/17	7:00 pm	Cephalexin 375 mg PO	
2/17/17	0900	S: Sedated for recheck and bandage change. BAR prior to sedation. Ketamine: 41.2mg Dexmedetomidine: 0.15mg } IM SID. Midazolam: 2.6mg	
		O: WT = Turgor = und mm: plm CRT: < 2 sec. T = 100.3 P: 108 R: 30 Integ: Wound bed is granulating in well. Remaining sutures removed. Wound site is clean + dry. No discharge. Minimal swelling remains in D3 + D5 of right foot.	
		A: D) Amputation of Right limb, D4. P: Removed bandage + remaining sutures Soaked foot in Epsom salts + sterile saline for ~10 mins. Administered: Enrofloxacin: 100mg IV SID Meloxicam: 1.1mg IM SID. Culture results returned: Discontinue Cephalexin due to resistance. Continue enrofloxacin IV/IM/PO 10mg/kg SID for full 10 days. Administer meloxicam PRN. Replaced honey bandage. Plan to recheck on 2/21/17, unless pt. removed bd. before then.	
2/18/17	8:30 A	BAR. 375mg cephalexin P.O. 1.1mg Meloxicam P.O. 108mg Enrofloxacin IM. bandage intact.	[REDACTED]
2/19/17	8:30 am	1.1mg meloxicam PO; 108mg enrofloxacin IM	
2/20/17	8:00 am	108mg enrofloxacin PO IV [REDACTED]	

University of California, Berkeley - Office of Laboratory Animal Care

Investigator: [REDACTED]

Species/Breed: M. mulatta Sex: M

Animal #: [REDACTED]

Date of Birth: 5/13/77

Date of Arrival: 6/8/12

date	time		initials
2/21/17	0900	<p>S: Sedated for recheck + bandage change. BAR prior to sedation. Bandage intact. Ketamine: 41.2mg Dexmedetomidine: 0.15mg Midazolam: 2.6mg IM SID.</p> <p>O: T: 101.6 P: 104 R: 20 Wt = 10.2 Kg Turgor: Wnl CRT: < 2 sec. mm = plm Integ: Mild Swelling remains in digits on right foot. Granulation nearly complete. No erythema or discharge.</p> <p>A: 1) Amputation, right hindlimb, D4. P: Removed bandage + soaked foot in Epsom salts for 10 minutes. Administered enrofloxacin 10mg/kg IV SID. Replaced honey bandage. Plan to replace or potentially leave unbanded 2/24/17. Continue w/ current abx tx. Reversed w/ atipamezole 0.3ml IM SID. Recovered in home cage.</p>	
2/22/17	830	108mg enrofloxacin IM	
2/23/17	0830	108mg enrofloxacin IM	
2/24/17	0900	<p>S: Sedated for recheck + possible bandage removal BAR prior to sedation. Ketamine: 41.2mg Dexmedetomidine: 0.15mg Midazolam: 2.6mg IM SID</p> <p>O: T: 102.2 P: 108 R: 30 Wt = 10.3 Kg Turgor = wnl CRT: 2 sec. mm = plm Integ: Toe amputation site continues to heal well. Mild irritation on cranial aspect of ankle joint from bandage. D3 on right foot remains slightly swollen.</p> <p>A: 1) Amputation right hindlimb, D4.</p>	(Cont)

University of California, Berkeley - Office of Laboratory Animal Care

Investigator: [redacted] Species/Breed: M. mulatta Sex: M
Animal #: [redacted] Date of Birth: 5/13/2007 Date of Arrival: 6/8/12

date	time		initials
2/24/17	(cont.)	P. Removed previously placed bandage. Soaked right foot in warm saline + Epsom salts for 10 minutes. Applied SSD topically to toe amp site and bandage abrasion on R ankle. Elect to leave bandage off at this time. Healing is almost complete. Continue to monitor through regular daily health checks.	[redacted]
3/13/17	0900	S: Sedated for annual PE. BAR prior to sedation. Fasted overnight. Hx of recent toe amputation. Ketamine: 41.2 mg + 51.5 mg Dexmedetomidine: 0.15mg Midazolam: 2.5mg 14.510	
		O: T: 100.1 P: 112 R: 20 Turgor: wnl CRT: <2secs mm=plm Wt: 10.6Kg BCS: 3/5 Excellent Oral: mild to moderate calculus primarily on incisors. Integ: wnl - only mild patchy alopecia on lateral aspect of quads bilaterally (~4%). Abd/Thorax: wnl ECNT: wnl M/S: wnl - amputation site completely healed on R foot. PLN: wnl UG: (including bimanual) wnl	
		A: 1) Mild alopecia - 4% 2) otherwise healthy on PE.	
		P: Collected ~4mls of blood from L femoral vein for Chem + CBC.	(cont.)