

**RE: New valley fever cases in 131****Sally Thompson-Iritani** <sti2@uw.edu>

Sat 10/12/2019 5:40 PM

**To:** Tess House <th81@uw.edu>; cjmead2 <cjmead2@uw.edu>; aw656 <aw656@uw.edu>; cmali <cmali@uw.edu>**Cc:** Charlotte E. Hotchkiss <chotchk@uw.edu>

Thank you Tess - that is a bummer.

Sally

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**From:** Tess House <th81@uw.edu>**Sent:** Friday, October 11, 2019 7:39 AM**To:** cjmead2 <cjmead2@uw.edu>; aw656 <aw656@uw.edu>; cmali <cmali@uw.edu>**Cc:** Sally Thompson-Iritani <sti2@uw.edu>; Charlotte E. Hotchkiss <chotchk@uw.edu>**Subject:** New valley fever cases in 131

Good morning-

We have two new cases of valley fever in 131. One, unfortunately, is the breeder male A10229 and the other is L09006. She was a past VF case that was closed in 2018 (most recent prior positive titer was March 2017). The male has not been positive in the past, this is his first positive titer. They both have cases opened and treatment added.

There is a running list of VF cases in Teams in the VF group that will be updated as titer results roll in. The document is Valley Fever case list. The top of the document is the list of cases when I was preparing the NSAB update and the more recent additions/subtractions of cases are listed below that.

Dr. H

**RE: 242 exams****Tess House** <th81@uw.edu>

Tue 6/18/2019 7:35 AM

**To:** cjmead2 <cjmead2@uw.edu>; Schante M. Hodges <shodges3@uw.edu>**Cc:** cmali <cmali@uw.edu>; Danielle Parks <dp546@uw.edu>; smintner <smintner@uw.edu>

Prenatals have been added to T10174 effective today.

Thanks!

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**From:** cjmead2 <cjmead2@uw.edu>**Sent:** Tuesday, June 18, 2019 6:51 AM**To:** Tess House <th81@uw.edu>; Schante M. Hodges <shodges3@uw.edu>**Cc:** cmali <cmali@uw.edu>; Danielle Parks <dp546@uw.edu>; smintner <smintner@uw.edu>**Subject:** Re: 242 exams

T10174 will take meds

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**From:** Tess House <th81@uw.edu>**Sent:** Monday, June 17, 2019 3:53:08 PM**To:** Schante M. Hodges; cjmead2**Cc:** cmali; Danielle Parks; smintner**Subject:** 242 exams

Updates from today:

I've added treatments to start tomorrow on ET71 who was pulled to 142 today. I've also increased the NS for R11037 in 242 from SID to BID starting tomorrow. Since IG77 in 242 is on fluconazole, I added prenatals to her treatment plan starting tomorrow.

Body weights were entered on the juveniles that were weighed but not examined today.

I'm adding a follow up weight check for T10118 in 242 and ID14 in 231 in a couple weeks.

Social exemptions put in for ET71, FLO4 (pulled for weight loss from 131 to 142 today), and Z17256 (rectal prolapse from 111 pulled to 104 today).

For T10174 in 242-can we add prenatals? She isn't a VF case, would she come up for vitamins?

That's all I can think of for now.

Thanks,

Dr. H

Theresa (Tess) House, DVM MPH

Supervisory Veterinarian

Washington National Primate Research Center

Arizona Breeding Colony

Office phone 206.685.1842

Mailing address- P.O. Box 20836/Mesa, AZ 85277

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**Re: Friday 142 Case Updates**

cjmead2 &lt;cjmead2@uw.edu&gt;

Sat 5/25/2019 7:22 AM

To: cmali <cmali@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; Danielle Parks <dp546@uw.edu>

Cc: Tess House <th81@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>; Jim Murphy <murphyjm@uw.edu>

Sounds good, I will be updating the schedule

**From:** cmali <cmali@uw.edu>

**Sent:** Friday, May 24, 2019 12:11 PM

**To:** cjmead2; smintner; Schante M. Hodges; Danielle Parks

**Cc:** Tess House; Kelly L. Carbone; Jim Murphy

**Subject:** Friday 142 Case Updates

**Released:**

- K11143/infant: cleared to return to group (242)
- A03139/ET02/infant: cleared to return to group (221)
- M06139/GM35: cleared to return to group (242)

**Monitor:**

- M11094: breasts engorged due to infant weaning. CTM for any signs of inflammation or mastitis
- M06139/GM35: WL case to remain open. Weight scheduled for 6/7

**Cases Closed:**

- K11143 (post surgical monitoring), VF case remains open
- A10181/PdR2 (trauma): need to ID location to move to until shipment to Seattle (232?)
- K01225/DL30 (ob/gyn), post surgical monitoring case remains open due to scabs at the cranial aspect of the incision
- A03139/ET02 (diarrhea)

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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**FW: 5/15 Chemistries****Tess House** <th81@uw.edu>

Thu 5/16/2019 9:28 AM

**To:** cmali <cmali@uw.edu>

Their CBCs on L08144 and Z16287 are in now from Idexx. L08144 had an elevated WBC with an eosinophilia so I'm going to add some Panacur and recheck her in a month. Z16287 had an elevated WBC as well (15.5) and lymphocytosis. Recheck in a month for him as well?

It's interesting that all of our samples going to Idexx have had WBC's in the high 14's, low 15's. It would be nice once we get our CBC machine situation figured out to have a comparison on the same sample between our machine and Idexx.

**From:** Tess House**Sent:** Thursday, May 16, 2019 7:39 AM**To:** Carolyn M. Malinowski <cmali@uw.edu>**Subject:** FW: 5/15 Chemistries

L08144: Current VF case (only abnormality was a hyperglobulinemia)

Z16287: This kid has had a hypocalcemia that has resolved but still has a mild-moderate hypoalbuminemia. It has been improving. Do another check on him in about a month at BW or monitor at fall blood work?

<b>Animal:</b>	Z16287	<b>Age:</b>	2 y 7 m	<b>Project:</b>	ABC Mn Breeding
<b>Sex:</b>	Male	<b>Weight:</b>	2.95 on 5/15/19	<b>Investigator:</b>	Breeding 75 01
<b>Species:</b>	Macaca nemestrina	<b>Location:</b>	AA111A-B-C	<b>IACUC:</b>	4202-02

Serum Chemistry		Sodium (mEq/L)	Potassium (mEq/L)	Magnesium (mEq/L)	Chloride (mEq/L)	Carbon Dioxide	Glucose (mg/dL)	Blood Urea Nitrogen (mg/dL)	Creatinine (mg/dL)	Total Protein (g/dL)	Albumin (g/dL)	Globulin (g/dL)	A:G Ratio	Total Bilirubin (mg/dL)	Calcium (mg/dL)	Phosphate (mg/dL)	Cholesterol (mg/dL)
15/May/19	20190515_14						73	24	0.8	6.3	2.6	3.7	0.7	0.3	7.9	5.6	131
23/Apr/19	20190423_11						43	26	0.6	6.1	2.3	3.8	0.61	0.4	7.6	7.3	170
08/Apr/19	20190408_11						40	23	0.7	4.9	1.7	3.2	0.53	0.4	6.6	4.2	116
15/Oct/18	20181015_15						63	21	0.8	6.4	2	4.4	0.45	0.4	8	3.7	157
11/Sep/17	20170911_09						105	27	0.5	6.9	3.5	3.4	1.03	0.3	8.9	6.8	129

Z19059: Hypoglobulinemia but all other values normal. Going to do a recheck in 1 month. The overall protein level and albumin level were normal. The previous hypoalbuminemia and hypocalcemia have resolved.

**From:** Danielle Parks <dp546@uw.edu>**Sent:** Wednesday, May 15, 2019 2:39 PM**To:** cmali <cmali@uw.edu>; Tess House <th81@uw.edu>**Cc:** cjmead2 <cjmead2@uw.edu>**Subject:** 5/15 Chemistries

Hello,

Chemistry for L08144, Z16287, and Z19059 should be uploaded to Panel Reports by tomorrow morning. CBCs have all been sent out to Idexx.

Danielle Parks  
 Veterinary Specialist I  
 WaNPRC, Arizona Breeding Colony  
 4202 N Higley Rd.  
 Box 20836  
 Mesa, AZ 85215

## Cases closed

Tess House <th81@uw.edu>

Fri 5/10/2019 2:33 PM

To: Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>; Danielle Parks <dp546@uw.edu>

Cc: cmali <cmali@uw.edu>; cjmead2 <cjmead2@uw.edu>

Here are some cases closed today:

- Z16284 closed weight loss case, diarrhea case still open (fecal pending)
- Z16283 closed weight loss case, VF case still open
- Z17157 closed weight loss case
- K10112 closed diarrhea case, VF case still open
- Z16281 closed diarrhea and weight loss cases
- Z16043 closed weight loss case, diarrhea repeat still open
- Z14145 closed diarrhea case

Thank you,  
Dr H

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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**Re: Cases closed**

smintner <smintner@uw.edu>

Fri 5/3/2019 11:04 AM

**To:** Tess House <th81@uwedu>; Schante M. Hodges <shodges3@uwedu>; cmali <cmali@uwedu>; Danielle Parks <dp546@uwedu>; cjmead2 <cjmead2@uw.edu>

Got it!

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**From:** Tess House <th81@uw.edu>

**Sent:** Friday, May 3, 2019 10:47 AM

**To:** smintner; Schante M. Hodges; cmali; Danielle Parks; cjmead2

**Subject:** Cases closed

Good morning-

The following cases have been closed: Z17157 (104), GM35 (142; diarrhea case closed but weight loss case still open), ID14 (142; diarrhea case closed but VF and weight loss cases open).

Thanks,

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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## VF Case Updates

cmali <cmali@uw.edu>

Mon 4/8/2019 12:03 PM

To: cjmead2 <cjmead2@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; Danielle Parks <dp546@uw.edu>

Cc: Tess House <th81@uw.edu>

The following VF cases have been closed:

- T10118 (242)
- M03312 (142)

### Carolyn Malinowski, MS, DVM, CMAR, CPIA

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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**Re: M03312 Thoughts**

cmali &lt;cmali@uw.edu&gt;

Thu 4/4/2019 8:55 AM

**To:** Dean Jeffery <daj12@uw.edu>

ok, she will get a single dose of 1mg/kg Pred today (already given). I d/c the rest of the doses.

I'll keep you posted on her progress... Thank you again for your help with this case!!

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501

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**From:** Dean Jeffery <daj12@uw.edu>**Sent:** Thursday, April 4, 2019 8:47 AM**To:** cmali**Subject:** RE: M03312 Thoughts

Without knowing at all what is going on, I can't say if steroids would mess her up. You just had compelling counter points to all of my points that seemed that a lot of this could be chalked up to pregnancy/abortion. But given what you've said, I'd probably give it a week to see if the antibiotics and supportive care turned her around, especially if the VF tx efficacy could be effective.

DJ

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**From:** cmali [mailto:cmali@uw.edu]**Sent:** Thursday, April 4, 2019 8:14 AM**To:** Dean Jeffery <daj12@uw.edu>**Subject:** Re: M03312 Thoughts

DDDOOOHHH!!! I already started the steroids this morning..... I did a 5 day course at 1 mg/kg, then 5 doses taper at 0.5 mg/kg.... Do you think that will totally mess her up??

The machine was throwing out a lot of errors yesterday for that sample and the techs had to run it twice, which is probably why the creatinine didn't read.

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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**From:** Dean Jeffery <[daj12@uw.edu](mailto:daj12@uw.edu)>

**Sent:** Thursday, April 4, 2019 8:07 AM

**To:** cmali

**Subject:** RE: M03312 Thoughts

Excellent counter points. Given what you've said, I would hold off on the steroids until you had a positive fecal occult blood. But why didn't creatinine get measured?

DJ

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**From:** cmali <[cmali@uw.edu](mailto:cmali@uw.edu)>

**Sent:** Thursday, April 4, 2019 7:01 AM

**To:** Dean Jeffery <[daj12@uw.edu](mailto:daj12@uw.edu)>

**Subject:** Re: M03312 Thoughts

Morning Dean!!

Thank you so much for your EXTENSIVE response!! I REALLY appreciate you taking the time to help me out!! Tess is out of town so I didn't have anyone else to consult with down here. Bloods were taken before fluids were administered. We did get a vaginal swab and a fecal Biofire. I'll have the techs collect a fecal for occult blood (no endoscope here).

We were originally thinking metritis when we pulled her for exam and based on the vaginal discharge but the blood work threw me for a loop... I don't often see BW that messed up, so I very much appreciate your second pair of eyes/brainpower.

I wasn't overly worried about the anemia- we often see that postpartum, and I hadn't considered it could be from chronic DZ, so I will definitely keep that on my radar.

I assumed the glucose was high due to stress (abortion, feeling junky for a few days, plus catching the animal/restraint), although it is a lot higher than we normally see with stressed animals. Diabetes crossed my mind... We didn't get a good urine sample yesterday, and it was free catch. Tess was the one examining the animal (I scribed) and she didn't want to do a cysto at the time for fear of tracking possible infection around the abdomen. I don't think Tess looked anywhere else in the abdomen during her US, other than the uterus

Liver issues crossed my mind, but I would have expected other liver values to be wonky as well...

I was reading that ALP can be pretty elevated around parturition in dams (not specifically monks), but I'm not sure what ALP half life is and if it would still be this elevated 4 days after parturition.

Definitely thought the BUN was pre-renal due to severe dehydration (12% by skin tent). And the bilirubinemia I attributed to possible anorexia/weight loss since the serum wasn't hemolyzed.

The hypoproteinemia I thought was probably related to diarrhea. It's not uncommon to see that in our skinny/sick monks and we can usually correct it with protein supplements added to the nutritional support.

Cholestasis (of pregnancy) was the top of my list. Followed by PLN/PLE. Maybe complicated by metritis?

I'll add a short course of steroids to her TX plan today. We just have to be careful with steroids and VF cause they decrease the efficacy of the fluconazole, although that's the least of this girl's problems right now.... Will plan to repeat PE/Blood in 2 weeks, unless she takes a turn for the worse in the mean time.

Hope you have a decent day!

Best!  
CMM

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501

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**From:** Dean Jeffery <daj12@uw.edu>  
**Sent:** Wednesday, April 3, 2019 6:42 PM  
**To:** cmali  
**Subject:** M03312 Thoughts

So this animal's history shows she's a prolific breeder and also her weight fluctuates quite a bit (BCS 1.5-3/5, wt 5.2kg to 7kg non-pregnant) and she is prone to GI infections and abnormal feces. The purulent vaginal discharge seems unsettling in light of the ADR, dehydration, decreased BCS, and urine colour, and recent still birth. The fact that the uterus felt contracted and firm makes me less suspicious about an endometritis from a retained placenta. And there is no fever, but then again she has been on meloxicam I think and she's also dehydrated, so maybe temp should actually be higher?

I would expect the leukogram to look a lot more wonky with a pyometra but it looks darn normal. The HCT is low, but from anemia of chronic disease, pyelonephritis, GI bleeding, other hemorrhage, or was this sample taken after the IV fluids were bloused... or some other reason such as chronic renal disease and decreasing EPO production? The chem is more concerning. Is that glucose high from postprandial, stress, DM/DKA? I'm not sure why creatinine isn't reading. The BUN could be pre-renal from dehydration, but that seems really high. The low TP with both hypoalbuminemia and hypoglobulinemia is also concerning (PLE, liver failure, hemorrhage?). What has the stool looked like and have you submitted for a occult fecal blood to look for a PLE? This animal has a looooooong history of E coli and bad poops, so maybe she has an underlying IBD type condition that has led to panhypoproteinemia (digested blood would also explain your BUN and anemia nicely). Given that ALKP, bilirubin, and cholesterol are all elevated, you might have some cholestasis/pancreatitis going on? Can you visualize the gall bladder on ultrasound to rule out a biliary mucocele? But bilirubin could also be elevated from RBC destruction or anorexia. And cholesterol could also be elevated with a PLN.

Given the animal's history and the blood work results, it sounds a lot like this is either liver failure (probably secondary to amyloidosis from antigenic stimulation of coccidioidomycosis) or a rip-roaring IBD causing a PLE. I guess I wouldn't take fatal fasting syndrome off the list either. Your bases are covered for infectious causes with 2 antibiotics, and the lack of inflammatory leukogram makes this seem less likely? I would want a liver biopsy (ultrasound guided with tru cut biopsy needle) and a fecal occult blood (assuming there are no means to get endoscopy samples). Treatment wise, I would only add steroid to your plans, as you are treating for VF, and it will help with PLE. I suppose that a urine culture (via cysto) is the other main thing I'd want, to rule out a PLN, possibly from an ascending pyelonephritis/glomerulonephritis from GI and/or aborted fetus. Failing that, I guess a swab of some of that vaginal discharge. If you can get a clean speculum in there and swab as close to the cervix as possible, and you get an E.coli or other GI type bug, it might be a safe assumption that it could've translocated further to the uterus or kidneys.

Sorry for the stream of consciousness thoughts, here's one more: could a IBD/PLE be so severe that the bile ducts become inflamed and you get at least partial cholestasis? I bet they could! Anyhow, I'll think more on it. Bring it up tomorrow, we need better brains on this than mine.

DJ

**Dean Jeffery, DVM**

Senior Clinical Veterinarian

**Washington National Primate Research Center****University of Washington**

Box 357330

Seattle, WA 98195-7330

Office: 206-543-2500

Pager: 206-583-9688



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**RE: cocci results****Tess House** <th81@uw.edu>

Mon 10/7/2019 12:12 PM

**To:** cmali <cmali@uw.edu>

Can you add this info on the new case to the Valley fever case list document in Teams when you have a chance? Thx!

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**From:** cmali <cmali@uw.edu>**Sent:** Monday, October 7, 2019 11:52 AM**To:** cjmead2 <cjmead2@uw.edu>; Tess House <th81@uw.edu>**Subject:** Re: cocci results

No changes to current cocci cases

Z14331: new case, start fluconazole tomorrow.

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Supervisory Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501

**DARE 2 CARE**

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**From:** cjmead2 <cjmead2@uw.edu>**Sent:** Monday, October 7, 2019 6:42 AM**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>**Subject:** cocci results

(112) 9/23 and (231) 9/24 results downloaded into panel reports

**Re: Z17139- seeking input**

cmali &lt;cmali@uw.edu&gt;

Fri 3/29/2019 3:36 PM

**To:** Audrey Baldessari <aeb4@uw.edu>; Robert D. Murnane <rmurnane@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>

**Cc:** Jason D. Laramore <jasonl73@uw.edu>; Charlotte E. Hotchkiss <chotchk@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; Dean Jeffery <daj12@uw.edu>; Keith Vogel <vogelk@uw.edu>; Tess House <th81@uw.edu>

We did do a drawer test bilaterally and it felt the same on both sides. Both Tess and I thought the stifles felt "loose" but it was the first time we had ever done a drawer or tibial thrust on a monkey, let alone a juvenile one....

Caroline is looking into Idexx for the Coombs and ANA tests.

The animal does have a HX of Shigella in May of 2018 and Enrofloxacin in June 2018

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501

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**From:** Audrey Baldessari <aeb4@uw.edu>**Sent:** Friday, March 29, 2019 2:36 PM**To:** Robert D. Murnane; Kathryn A. Guerriero**Cc:** Jason D. Laramore; cmali; Charlotte E. Hotchkiss; Sally Thompson-Iritani; Dean Jeffery; Keith Vogel; Tess House**Subject:** RE: Z17139- seeking input

If you (AZ) still have an account with Antech, they probably do Combs and ANA.

Agree it sound infectious or immune mediated, or possibly drug reaction. In regards to the CCL concern, did you do a drawer test when sedated? And was this animal on quinolones ever (connective tissue / joint issues)?

audrey

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**From:** Robert D. Murnane <[rmurnane@uw.edu](mailto:rmurnane@uw.edu)>  
**Sent:** Friday, March 29, 2019 2:30 PM  
**To:** Kathryn A. Guerriero <[kag18@uw.edu](mailto:kag18@uw.edu)>  
**Cc:** Jason D. Laramore <[jasonl73@uw.edu](mailto:jasonl73@uw.edu)>; cmali <[cmali@uw.edu](mailto:cmali@uw.edu)>; Charlotte E. Hotchkiss <[chotchki@uw.edu](mailto:chotchki@uw.edu)>; Sally Thompson-Iritani <[sti2@uw.edu](mailto:sti2@uw.edu)>; Dean Jeffery <[daj12@uw.edu](mailto:daj12@uw.edu)>; Keith Vogel <[vogelk@uw.edu](mailto:vogelk@uw.edu)>; Tess House <[th81@uw.edu](mailto:th81@uw.edu)>; Audrey Baldessari <[aeb4@uw.edu](mailto:aeb4@uw.edu)>  
**Subject:** Re: Z17139- seeking input

Our lab does not do ANA or Coombes. The hospital that may be able to do that although of course it would not be verified for NHPs. I am looping in Audrey as she may have some comments.

Cheers  
Bob

Sent from my iPhone

On Mar 29, 2019, at 12:56 PM, Kathryn A. Guerriero <[kag18@uw.edu](mailto:kag18@uw.edu)> wrote:

To me, the polyarthritis is screaming either systemic infection or immune-mediated. I agree with Jason's idea to run a Coomb's or ANA. There is section in the NHP blue book on inflammatory arthritis (chpt 13) that may be helpful to review.

In regards to infectious, other causes I would want to rule out are shigella and mycoplasma (which can result in an immune-mediate arthritis in these guys).

Kate

---

**From:** Jason D. Laramore <[jasonl73@uw.edu](mailto:jasonl73@uw.edu)>  
**Sent:** Friday, March 29, 2019 12:39 PM  
**To:** cmali <[cmali@uw.edu](mailto:cmali@uw.edu)>; Charlotte E. Hotchkiss <[chotchki@uw.edu](mailto:chotchki@uw.edu)>; Sally Thompson-Iritani <[sti2@uw.edu](mailto:sti2@uw.edu)>; Dean Jeffery <[daj12@uw.edu](mailto:daj12@uw.edu)>; Kathryn A. Guerriero <[kag18@uw.edu](mailto:kag18@uw.edu)>; Keith Vogel <[vogelk@uw.edu](mailto:vogelk@uw.edu)>; Robert D. Murnane <[rmurnane@uw.edu](mailto:rmurnane@uw.edu)>  
**Cc:** Tess House <[th81@uw.edu](mailto:th81@uw.edu)>  
**Subject:** RE: Z17139- seeking input

Could this be an immune-mediated polyarthropathy? If so, continue tapering steroid regimen for a longer period of time. Coomb's or ANA test? Just "thinking out loud" now. Keep me in the loop. Thanks for reaching out.

Thanks,  
Jason

---

**From:** cmali [<mailto:cmali@uw.edu>]  
**Sent:** Friday, March 29, 2019 12:35 PM  
**To:** Charlotte E. Hotchkiss <[chotchki@uw.edu](mailto:chotchki@uw.edu)>; Sally Thompson-Iritani <[sti2@uw.edu](mailto:sti2@uw.edu)>; Dean Jeffery <[daj12@uw.edu](mailto:daj12@uw.edu)>; Kathryn A. Guerriero <[kag18@uw.edu](mailto:kag18@uw.edu)>; Keith Vogel <[vogelk@uw.edu](mailto:vogelk@uw.edu)>; Jason D. Laramore <[jasonl73@uw.edu](mailto:jasonl73@uw.edu)>; Robert D. Murnane <[rmurnane@uw.edu](mailto:rmurnane@uw.edu)>  
**Cc:** Tess House <[th81@uw.edu](mailto:th81@uw.edu)>  
**Subject:** Z17139- seeking input

Hi Team,

We would like to (re)discuss Z17139 with everyone...

This is the juvenile male that we thought had arthritis about a month ago (previous discussion over stifle xrays). Started on ABX (Clavamox), Fluconazole, and Meloxicam. After no significant improvement, D/C ABX and started Pred based on non-specific inflammation on bilateral joint taps. Now he has red swelling over distal thumb knuckles (started on left a week ago, now bilateral). We suspect he is sucking on/rubbing them or has some kind of soft tissue trauma. We originally suspected a developing abscess when just on the right, but it just bled a lot when I stuck a needle in it, which was strange... He's not grasping well with either hind foot and seems place them a bit gingerly.

He is now weighting/walking on the heel on the right hind. Rickettsia, Erlichia, and Anaplasma negative. Added Gabapentin this week, so far (2 days) and no significant improvement, started pred taper dose. VF titers have been negative. Planned xrays and Borelia PCR in a weekish. Has been on meloxicam since the start. He continues to have ~90% extension on the left leg with muscle wastage bilaterally, more severe on the left leg.

The only other thing we can come up with is a torn ACL (maybe bilaterally) but neither of us feel confident we could ID this on US...

Any thoughts/suggestions besides endpoint?

Thanks,  
Carolyn

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501

<image001.png>

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## 104 Housing changes

cmali <cmali@uw.edu>

Fri 3/29/2019 12:53 PM

To: cjmead2 <cjmead2@uw.edu>

Cc: Tess House <th81@uw.edu>

CJ- thoughts on the following housing changes...

Pair Z16283 and Z16385 (both continuing VF resp cases) and return Z16341 to group (currently social partner for 358)?

### Carolyn Malinowski, MS, DVM, CMAR, CPIA

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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## Closed VF Cases

cmali <cmali@uw.edu>

Thu 3/28/2019 12:43 PM

To: cjmead2 <cjmead2@uw.edu>; smintner <smintner@uw.edu>; Danielle Parks <dp546@uw.edu>; Schante M. Hodges <shodges3@uw.edu>

Cc: Tess House <th81@uw.edu>

the following VF cases have been closed:

- A03139 (231)
- A10193 (231)
- S11069 (231)
- F11079 (232)

### Carolyn Malinowski, MS, DVM, CMAR, CPIA

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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**FW: CBC/chem downloaded****Tess House** <th81@uw.edu>

Thu 3/28/2019 8:49 AM

**To:** cmali <cmali@uw.edu>

I entered Z16283's results (CBC was good, hyperglobulinemia but a VF case and the value is lower than before).

Z16281 has not yet appeared in panels on my end.

---

**From:** cjmead2 <cjmead2@uw.edu>**Sent:** Thursday, March 28, 2019 7:14 AM**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>**Subject:** CBC/chem downloaded

Z16281

Z16283 (pending cocci titer)

## AZ shipment list of potentials

Tess House <th81@uw.edu>

Fri 3/22/2019 12:53 PM

To: Charlotte E. Hotchkiss <chotchk@uw.edu>

Cc: cmali <cmali@uw.edu>; cjmead2 <cjmead2@uw.edu>; Jim Murphy <murphyjm@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>

Hi Charlotte,

A follow up point Carolyn, Caroline, Jim, and I were discussing after the meeting today was which animals could potentially be sent to Seattle to free up some space here in Arizona. We're not sure of what animals you would prefer/need for study and/or breeding up there but here are some groups listed below that would make sense (at least on our end) to ship for you to mull over. I've noted any animal with a currently open valley fever case as a VF after the number for you in case that makes a difference.

171 B/C female group: Z14134, Z14140, Z14308, Z16043

152 female group: Z13337(VF), Z14001(VF), Z14150, Z14323(VF), Z14345, Z14367

162 male group: Z13288, Z14007, Z14020, Z14055, Z14176, Z14289, Z14333(VF), Z15032, Z15258(VF) \*\*\*unless there are certain males here you want to retain for breeding in AZ\*\*\*

Males from the current juvenile groups 111, 121, and 122: Z16284, Z16287, Z16297, Z16300, Z16328, Z16339, Z16353, Z17046, Z17050, Z17053, Z17064, Z17091, Z17094, Z17137(VF), Z17157, Z17160, Z17256, Z16277, Z16324, Z17001, Z17049, Z17063, Z17072, Z17083, Z17085, Z17096, Z17136, Z17159, Z17184, Z15329, Z15331, Z15404, Z16041, Z16304, Z16338, Z16343 \*\*\*unless there are certain males here you want to retain for breeding in AZ\*\*\*

Tess

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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**RE:**

**Tess House** <th81@uw.edu>

Thu 2/28/2019 8:31 AM

**To:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>

**Cc:** Danielle Parks <dp546@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>

A12262's infant is Z19059 (L-Y). Dam has been taken off the pregnancy list.

---

**From:** cjmead2 <cjmead2@uw.edu>

**Sent:** Thursday, February 28, 2019 8:19 AM

**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>

**Cc:** Danielle Parks <dp546@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>

**Subject:**

222:

A12262- new birth grasping and nursing (due 4/19) we should look at dam and infant tomorrow when we do the other dam/infant as well

A12262 new VF case, Hx wt loss, GI

241: GP45 Jennifer heard dry coughing this morning

142: Z14331- dam fluid feces (send PCR), infant dehydrated-will get both out for follow-up exam

Caroline

**(No subject)**

**cjmead2 <cjmead2@uw.edu>**

Fri 2/22/2019 10:19 AM

**To:** Tess House <th81@uwedu>; cmali <cmali@uwedu>

121: Z16283, this is one I saw coughing, (again hard to tell) for its age it should be bigger, so will see when it gets weighed next week and/or pull and get cocci titer then as well. She was weaned from upstairs 242 dam VF. And this is the same one Christie heard as well.

Caroline

**RE: AZ VF Distribution**

Charlotte E. Hotchkiss <[chotchki@uw.edu](mailto:chotchki@uw.edu)>

Wed 2/13/2019 10:32 AM

To: cmali <cmali@uwedu>; Tess House <th81@uwedu>; Jim Murphy <murphyjm@uw.edu>; cjmead2 <cjmead2@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>

**Cc:** Sally Thompson-Iritani <si2@uw.edu>

It looks like there isn't much difference in new cases by location, but there was a big difference in old cases, with a lot more upstairs. Is that because there are more breeding groups with older animals upstairs while there are more juveniles downstairs?

Looking at this, it seems there's no difference in the incidence of new cases between upstairs and downstairs. This could either be because location and amount of outdoor access don't make a difference, or because the limited outdoor access downstairs offsets the higher risk of being lower. I don't know if there's any way to tell which of those is more accurate.

Charlotte

**From:** cmali <cmali@uw.edu>

**Sent:** Tuesday, February 12, 2019 10:13 AM

**To:** Tess House <th81@uw.edu>; Jim Murphy <murphyjm@uw.edu>; cjmead2 <cjmead2@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>

**Cc:** Sally Thompson-Iritani <sti2@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>

**Subject:** AZ VF Distribution

Hi Team,

Here is the data that I pulled together for 2018 VF cases. Please see the attached document and tabs across the bottom.

The difference between new VF cases in the upstairs and downstairs enclosures looks like a big difference on the chart but in reality it is only a difference of 2 animals...

I don't know how useful this data is without doing statistics to see how significant the differences are but here it is.

Best,  
Dr M

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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**RE:****Tess House** <th81@uw.edu>

Fri 2/1/2019 12:17 PM

**To:** cjmead2 <cjmead2@uw.edu>**Cc:** cmali <cmali@uw.edu>

Her blood work is looking really good, no need for further follow up-anemia, hypocalcemia, hypoalbuminemia have all resolved. I'll close her post partum case, just leave the VF case open.

---

**From:** cjmead2 <cjmead2@uw.edu>**Sent:** Friday, February 1, 2019 11:01 AM**To:** Tess House <th81@uw.edu>**Cc:** cmali <cmali@uw.edu>**Subject:**

K11143- cbc/chem downloaded panel reports

**RE: VF positives****cjmead2** <cjmead2@uw.edu>

Fri 10/4/2019 4:07 PM

**To:** Tess House <th81@uw.edu>**Cc:** cmali <cmali@uw.edu>

Yes, it is. I mentioned that before. Also, dams with chronic diarrhea their infants seem to get VF. 358 in 104 dam is VF

My mom had valley fever, I have been immune compromised as a kid growing up with problems, then I got valley fever, lucky me.

---

**From:** Tess House <th81@uw.edu>**Sent:** Friday, October 4, 2019 11:22 AM**To:** cjmead2 <cjmead2@uw.edu>**Cc:** cmali <cmali@uw.edu>**Subject:** VF positives

Hi Caroline-

I did some investigating in workflow and here were the three that were negative, shipped to Seattle, then VF positive:

- Z17094 IgG 1:64, IgM 1:4
- Z16287 (this is the one with the bone lesion) 1:64, 1:16
- Z17049 1:128, 1:4

One thing that I thought was interesting and mentioned to Charlotte is that all three had VF dams (either past VF cases or current). This makes me wonder if the immune system was stressed and suppressed their ability to clear infection but that there also could be a genetic component to susceptibility.

I'll add a note in the VF Teams page with this info and include the dam number as well.

Thanks,  
Dr. H



**Week of February 4th 2019**

cjmead2 &lt;cjmead2@uw.edu&gt;

Thu 1/31/2019 3:51 PM

To: Jim Murphy <murphyjm@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>; Tess House <th81@uw.edu>; cmali <cmali@uw.edu>

Sunday: ATs (separate 241 male into C for sedation Monday)

**Monday February 4th**

241 (CAN NOT have any food in enclosure for sedation)

241: male K-9 removal (male to recover in group six in bay)

Upstairs:

1- group six

1- single trapping run

111: Z17184 BW

**Tuesday February 5th**

112: Z13090: follow-up fecal culture

104: Z17072- follow-up fecal culture

142: Z13319- follow-up fecal culture

142: Z13337- F/U US, cocci titer and chest rads (new VF)

222: Z11338 & J10160 new infant Exam

231: S10185 new infant exam

171: Z14340 BW intro into 171A

Upstairs:

1- 2 squeeze cages

1- 3 metal catch boxes

**Wednesday February 6th**

142: M09202-BW

ATs: 104/111

**Thursday February 7th**

152: Z14134 BW

112: Z13067 new birth exam and if any more born

Downstairs:

1- 1 squeeze cages

1- 1 metal catch box

**Friday February 8th**

103: (4) shipment exams

104: case BWs

142: case BWs

171: Z14340 BW

181: Z12342 infant follow-up BW



**FW: Weekly Veterinary updates****Tess House** <th81@uw.edu>

Sun 1/20/2019 2:51 PM

**To:** Carl L. Trivette II <clt222@uw.edu>; Christopher M. Wozniak <chrisw36@uw.edu>; cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>; Danielle Parks <dp546@uw.edu>; Erika E. Evans <erikae4@uw.edu>; Geoff Lard <glard@uw.edu>; Jennifer A. Falbo <jfalbo1@uw.edu>; Jerry L. Adkins <adkinj@uw.edu>; Jim Murphy <murphyjm@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>; Mack Berg <mackberg@uw.edu>; owenmcc <owenmcc@uw.edu>; Raymond Gonzales <joann63@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>; Simone Diaz <sdiaz4@uw.edu>

**Cc:** Sally Thompson-Iritani <si2@uw.edu>

Good afternoon everyone-

I wanted to give an update on 112. Z14323 was one of the dams listed of interest to NYU for the shipment going out on February 11<sup>th</sup>. She gave birth overnight and it was noted this morning that the infant had two lacerations on the right forearm. Both dam and infant (Z19022, a female) were moved to 142 and I performed an exam on both today. There were no dislocations or fractures of the infant's right arm and she had good range of motion in the arm and is grasping well. The wounds were cleaned and antibiotics and pain relievers were given. Dam and baby are in 142, below ID14, and the infant has been observed grasping and nursing well. The infant appeared otherwise healthy on physical exam.

We have one other dam in this group that is on the NYU list, Z14367, and concerns were expressed to me this morning about her and her infant. I've discussed the situation with Caroline and Sally and we are going to move Z14367 today to 142 in the location below PDr2 to give birth in that room.

The next estimated due date for a birth in 112 is February 6<sup>th</sup> so we will allow overnight indoor/outdoor access for this group tonight. We will be evaluating the group daily and as the situation develops, it will involve ongoing discussions between husbandry, veterinary services, BMS, and Seattle. Please do not hesitate to reach out me via email or the phone if you have questions before we have our staff meeting on Wednesday. I will be in the colony tomorrow to catch up on some things since it is a normal workday for my daycare so-for those of you in tomorrow-I can talk with you then as well if you'd prefer an in-person.

Special thanks to those working today-Schante, Simone, Mack, Carl, and Erika-for your help with everything and Caroline, Kelly, and Jim for being available today to talk over the phone.

Best,  
Dr. House

---

**From:** cmali <cmali@uw.edu>

**Sent:** Thursday, January 17, 2019 6:25 PM

**To:** Tess House <th81@uw.edu>; Danielle Parks <dp546@uw.edu>; Christopher M. Wozniak <chrisw36@uw.edu>; Geoff Lard <glard@uw.edu>; Carl L. Trivette II <clt222@uw.edu>; cjmead2 <cjmead2@uw.edu>; Jim Murphy <murphyjm@uw.edu>; Erika E. Evans <erikae4@uw.edu>; Mack Berg <mackberg@uw.edu>; Raymond Gonzales <joann63@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>; smintner <smintner@uw.edu>; owenmcc <owenmcc@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; Jennifer A. Falbo <jfalbo1@uw.edu>; Simone Diaz <sdiaz4@uw.edu>; Jerry L. Adkins <adkinj@uw.edu>

**Subject:** Re: Weekly Veterinary updates

Hi all,

Quick update and change of plans for 112...

after further discussion with behavior, veterinary, and husbandry personnel we will keep 112 animals inside overnight and let them have outdoor access for as long as possible during the day. This change is a balance between concerns of animals dropping babies from heights and giving the animals more space. This plan may change again depending on clinical outcomes from upcoming births and after review of necropsy records of previous infant deaths to determine risks.

Kelly will update husbandry staff regarding timing of cleaning the outdoor 112 enclosure.

Please let us know if you have any questions or concerns.

Best,  
Dr m

Sent from my iPhone

On Jan 17, 2019, at 1:03 PM, Tess House <[th81@uw.edu](mailto:th81@uw.edu)> wrote:

Hello Team,

Here are the clinical updates for the past week: It's been a busy one!

- Z14141: had a c-section last week Thursday to prevent seizures occurring during the normal birth process. Surgery went well and the incision has been healing well. Gave birth to a healthy baby boy (Z19006, 580g). Dam introductions the next day did not go as well as we had hoped and the infant was put back in the nursery for care. Vet techs has resumed TX for seizure medications.
- Z19005 (dam Z14320) on 1/10. This infant was slated for NYU but was found dead on 1/12 in the enclosure. Histopathology is pending.
- Z14320: fostered Z19006 onto dam on 1/14. Introduction went well and infant remains on dam.
- Z19002 (dam L08020) was pulled on 1/14 into the nursery and is destined for NYU.
- PdR2: on 1/10 this animal was report for a wound on her right thigh. The wound was an upward facing triangular skin flap (~4in sides to triangle). The wound was cleaned and sutured shut. Due to the direction of the skin injuries, blood flow was disrupted to the skin flap, causing it to necrose and shrivel. The wound is being managed as an open wound, allowing for healing by second intention (allowing the body to heal on its own). The bottom half of the skin flap remains in place and is healing.
- Z16358: this animal has pneumonia, likely from a secondary bacterial infection (also has VF). This animal continues to cough despite TX and repeat chest xrays are being taken tomorrow. Changes to the TX plan may occur depending on the results and further consult with Seattle.
- Z17072: pulled from 121 for weight loss. Exam is pending.
- K11143: pulled with infant from 242 on 1/15 for uterine infection. Culture is pending. She is being treated for infection.

Other updates:

- GREAT job on Wednesday with all the site preparations and tours!!! The facility looked AMAZING and many compliments were received about the facility and animals. We REALLY APPRECIATE all the effort and hard work that went into making Wednesday happen!!
- NYU infant ship date is Monday, Feb 11
- 112 enclosure will have indoor/outdoor access day and night (weather permitting) the give the animals more space as we approach the due dates for these naïve dams
- There are 2 more dams in 112 whose infants are slated for NYU. When the dams give birth, they will be pulled with the infants ASAP. All other dams in the enclosure will be allowed to give birth as normal.
- Dr M is out of the office from 1/18 and will be back on 1/24

Please let us know if you have any questions or concerns,

Best,  
Drs H and M

**Re:**

cmali <cmali@uw.edu>

Tue 1/15/2019 7:02 AM

To: cjmead2 <cjmead2@uw.edu>

good catch on the infant!!! I checked the record and didn't write down the sex... remind me to do it at the next exam unless you remember what it was...

Restarted fluconazole for CV61 (thanks for the reminder!) and made a notation in her record!

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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**From:** cjmead2 <cjmead2@uw.edu>

**Sent:** Monday, January 14, 2019 7:42:25 PM

**To:** cmali

**Subject:**

Last week:

New infant exam on Jan 11, from (AA181) Z19001 sex didn't get entered in ARMs

142: CV61 we took off her VF Tx, to get her to eat, did you want her back on?

Caroline

**Re: Weights**

cmali <cmali@uw.edu>

Fri 1/11/2019 12:29 PM

To: cjmead2 <cjmead2@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>

Cc: Tess House <th81@uw.edu>

yes, she has VF. she is the social partner for 358

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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**From:** cjmead2 <cjmead2@uw.edu>

**Sent:** Friday, January 11, 2019 12:24:14 PM

**To:** cmali; smintner; Schante M. Hodges

**Cc:** Tess House

**Subject:** Re: Weights

341, is that other VF.

Sounds good

---

**From:** cmali <cmali@uw.edu>

**Sent:** Friday, January 11, 2019 12:22:49 PM

**To:** cjmead2; smintner; Schante M. Hodges

**Cc:** Tess House

**Subject:** Re: Weights

104: let's keep an eye on Z16341. Her weight dropped about 10%. But there were just major changes to her group this week... I'm adding NS to start tomorrow to help tide her over

Keep Gp26 on the weight monitoring list.

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Friday, January 11, 2019 11:51 AM  
**To:** cmali; smintner  
**Subject:** Re: Weights

Sherri entered weights for 104 and GP26 in 212

---

**From:** cmali <cmali@uw.edu>  
**Sent:** Friday, January 11, 2019 11:44:05 AM  
**To:** smintner  
**Cc:** cjmead2  
**Subject:** Re: Weights

thanks sherri! All weights look good!

### Carolyn Malinowski, MS, DVM, CMAR, CPIA

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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---

**From:** smintner <smintner@uw.edu>  
**Sent:** Friday, January 11, 2019 11:06:38 AM  
**To:** cmali  
**Cc:** cjmead2  
**Subject:** Weights

Weights for 142 are entered. Onto weigh 104

Thanks,  
Sherri





## Weekend Cases to Watch

cmali <cmali@uw.edu>

Fri 1/4/2019 10:37 AM

To: Tess House <th81@uw.edu>; smintner <smintner@uw.edu>

Cc: cjmead2 <cjmead2@uw.edu>; Schante M. Hodges <shodges3@uw.edu>

242:

- ET40: swelling of L eye. Monitor and report to on call vet daily.

104:

- Z16358: pneumonia/VF. Started on ABX today (also on fluconazole, albuterol, pred, fiber bites, probiotics, multivitamin). Placed TB test in L eyelid today. Check daily.

- Z17001 and Z17193: today was day 3 of fluid feces. Started on GI support yesterday (pepto, banatrol, fiber bites, probiotics). Awaiting final fecal culture results. Was trying to keep off ABX but may need if fluid feces continues over weekend.

### **Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center

Arizona Breeding Colony

PO Box 20836

Mesa, AZ 85277

Ph: 206.616.0501

**Re: Case opinions Z16358****cmali** <cmali@uw.edu>

Fri 1/4/2019 7:08 AM

**To:** Kathryn A. Guerriero <kag18@uw.edu>; Dean Jeffery <daj12@uw.edu>; Sally Thompson-Iritani <si2@uw.edu>; Charlotte E. Hotchkiss <chotchk@uw.edu>; Keith Vogel <vogelk@uw.edu>**Cc:** Tess House <th81@uw.edu>

Hi All,

After discussing with Tess, we have decided to forgo the BAL due to the potential human health hazard associated with VF. We will start empiric TX with Clavamox today and also do a TST.

THANK YOU for your advice and recommendations yesterday. It's a good thing to have so many other vets around for when I have brain lapses, like not thinking of secondary bacterial infection and just focusing on VF..... I VERY MUCH APPRECIATE your help!!!

Best,  
Carolyn

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center

Arizona Breeding Colony

PO Box 20836

Mesa, AZ 85277

Ph: 206.616.0501

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**From:** Kathryn A. Guerriero <kag18@uw.edu>**Sent:** Thursday, January 3, 2019 9:13:22 PM**To:** cmali; Dean Jeffery; Sally Thompson-Iritani; Charlotte E. Hotchkiss; Keith Vogel**Cc:** Tess House**Subject:** Re: Case opinions Z16358

Hi Carolyn,

On my drive home tonight I was thinking about this case and was wondering when the last time this animal had a TB test done. I ask because these will have similar presentation on radiographs (and of course a cough) and the VF infection, altering this animal's immune system, has the potential to allow a latent TB infection to flourish. Anyway, it might be worth do a TB test and if you do get a BAL, you may want to consider sending it for TB PCR to rule that out (zoologix will run TB PCR, but you should contact them directly to confirm that they will take a sample from an animal with VF). Another option is to collect blood for TB serology (Intuitive Biosciences in Wisconsin will run this on macaque samples and the test is highly specific for tuberculosis causing mycobacterium). TB would be lower on my list for secondary bacterial infections if this animal has been negative before, but still definitely something that I would want to rule out.

Kate

---

**From:** Kathryn A. Guerriero**Sent:** Thursday, January 3, 2019 12:23:48 PM**To:** cmali; Dean Jeffery; Sally Thompson-Iritani; Charlotte E. Hotchkiss; Keith Vogel

**Cc:** Tess House  
**Subject:** RE: Case opinions Z16358

I'm up for a discussion after rounds. Can we bring up the radiographs on the screen after rounds?

---

**From:** cmali <cmali@uw.edu>  
**Sent:** Thursday, January 3, 2019 12:15 PM  
**To:** Dean Jeffery <daj12@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; Keith Vogel <vogelk@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>  
**Cc:** Tess House <th81@uw.edu>  
**Subject:** Re: Case opinions Z16358

sounds like a plan! Thanks!

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
PO Box 20836  
Mesa, AZ 85277  
Ph: 206.616.0501

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**From:** Dean Jeffery <daj12@uw.edu>  
**Sent:** Thursday, January 3, 2019 12:30:41 PM  
**To:** Sally Thompson-Iritani; cmali; Charlotte E. Hotchkiss; Keith Vogel; Kathryn A. Guerriero  
**Cc:** Tess House  
**Subject:** RE: Case opinions Z16358

I haven't had time to look yet, but I love a good discussion. Once we've covered pertinent weekend stuff, I'll stick around.

DJ

---

**From:** Sally Thompson-Iritani [mailto:sti2@uw.edu]  
**Sent:** Thursday, January 3, 2019 11:22 AM  
**To:** cmali <cmali@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; Keith Vogel <vogelk@uw.edu>; Dean Jeffery <daj12@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>  
**Cc:** Tess House <th81@uw.edu>  
**Subject:** RE: Case opinions Z16358

Should we discuss this at the end of rounds today? That left thoracic cavity is interesting.

Sally

---

**From:** cmali <cmali@uw.edu>  
**Sent:** Thursday, January 3, 2019 9:25 AM  
**To:** Charlotte E. Hotchkiss <chotchki@uw.edu>; Keith Vogel <vogelk@uw.edu>; Dean Jeffery <daj12@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>  
**Cc:** Tess House <th81@uw.edu>  
**Subject:** Case opinions Z16358

Hi All,

I would like some help with a case... ~2 yo M pigtail with indoor/outdoor access in a juvenile enclosure (weaned within last 6m). New Valley Fever Case, on TX with Fluconazole and Albuterol (for 1.5m) for cough. Moved into indoor hospital group cage when diagnosed. Cough not resolving. Repeat xrays yesterday are worse than previous ones (about a month ago). Started on pred about 5 days ago (before xrays). Heard coughing again today.

Please look at xrays, particularly the VD view.

Z:\Arizona\Vet Services\2019\Radiographs\Z16358

Plan to finish pred, continue albuterol and Fluconazole and repeat xrays 10D after pred ends .

Any thoughts or suggestions?

THANK YOU!!!

Carolyn

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center

Arizona Breeding Colony

PO Box 20836

Mesa, AZ 85277

Ph: 206.616.0501

## Completed Weights for 9/18/2019

Simone Diaz <sdi4@uw.edu>

Wed 9/18/2019 2:12 PM

To: cmali <cmali@uw.edu>; Tess House <th81@uw.edu>; cjmead2 <cjmead2@uw.edu>

Cc: Kelly L. Carbone <kellyc29@uw.edu>

Hi All,

Erika and myself completed weights for room AA122. The majority of the group had positive weight gains, there were a few that had decreases in their weights. Z16004, Z16005, and Z16281 all had decreases in their weights, the first two had significant drops and the third had a minor. All three animals are valley fever animals of concerns and all three animals are in the "C" cage in AA122. There was one prolapse, Z16348, but she was able to correct it and was released back into the group. Upon observation, they had formed feces, they are just straggly looking.

If there are any questions, feel free to reach out!

Thank you,  
Simone

**AT veterinary orientation****Tess House <th81@uw.edu>**

Mon 8/5/2019 7:00 AM

**To:** Kelly L. Carbone <kellyc29@uw.edu>**Cc:** cmali <cmali@uw.edu>

Hi Kelly,

I wanted to check in with you to see when a good time would be for the veterinary orientation and valley fever training for Angelica, Kelley, and Enya. Are there some upcoming days that would work well for their schedules to have this done?

Let me know what is easiest for them and for you-  
Dr. H.

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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## Vet orientation for ATs

Tess House <th81@uw.edu>

Mon 8/5/2019 7:34 AM

**To:** cmali <cmali@uw.edu>; Enya Gomez-Piercy <enyagp@uw.edu>; abalt12 <abalt12@uw.edu>; kelleyg <kelleyg@uw.edu>

Veterinary services orientation and Valley Fever orientation



**NSAB****Tess House** <th81@uw.edu>

Thu 12/19/2019 11:56 AM

**To:** cmali <cmali@uw.edu>**Cc:** Jim Murphy <murphyjm@uw.edu>; aw656 <aw656@uw.edu>

Hi Dr. M-

At the Oversight committee meeting today, Sally was discussing the NSAB meeting (Jan 14<sup>th</sup>) and what updates we'll need to give. I did communicate that veterinary staff will be doing end of quarantine exams on that day (it's in the morning 8-12 Seattle time). Sally said they will want updates on the new building as well as Valley Fever since there were so many cases in the animals shipped to Seattle in July.

If we have time to meet tomorrow (otherwise after your trip home), we should sit down and talk about this.

Dr. H

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

**RE: Virtual grand rounds****Tess House** <th81@uw.edu>

Mon 6/17/2019 8:03 AM

**To:** Charlotte E. Hotchkiss <chotchki@uw.edu>**Cc:** Keith Vogel <vogelk@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>; Dean Jeffery <daj12@uw.edu>; Robert D. Murnane <rmurnane@uw.edu>; Audrey Baldessari <aeb4@uw.edu>; cmali <cmali@uw.edu>

Hi Charlotte,

The only changes I have are updates to the treatment slide for the Arizona numbers since those are outdated now. I just checked our treatment sheet this morning and we currently have 40 (out of 304 animals) on fluconazole (13% of the colony). Of the 40, 24 animals (7.8% of the colony) are currently seropositive. This leaves 16 (5.2% of the colony) seronegative but still on fluconazole since we treat for one year of negative titers.

Tess

---

**From:** Charlotte E. Hotchkiss <chotchki@uw.edu>**Sent:** Sunday, June 16, 2019 6:52 PM**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>**Cc:** Keith Vogel <vogelk@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>; Dean Jeffery <daj12@uw.edu>; Robert D. Murnane <rmurnane@uw.edu>; Audrey Baldessari <aeb4@uw.edu>**Subject:** Virtual grand rounds

Here's what I have so far for the virtual grand rounds on Thursday. Comments welcome.  
Charlotte

Charlotte E. Hotchkiss, DVM, MS, PhD, DACLAM  
Washington National Primate Research Center  
University of Washington  
Box 357330  
Seattle, WA 98195-7330  
Office phone: 206-685-2881  
Cell phone: 206-496-4471  
Pager: 206-540-6615  
[chotchki@uw.edu](mailto:chotchki@uw.edu)  
Work hours 8-5 M-F

**RE: Z14141**

Charlotte E. Hotchkiss <chotchki@uw.edu>

Thu 6/13/2019 10:47 AM

**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>

Thanks! I hope to start working on this tomorrow. I'm starting a meeting marathon at 11....  
Charlotte

---

**From:** Tess House <th81@uw.edu>

**Sent:** Thursday, June 13, 2019 9:03 AM

**To:** Charlotte E. Hotchkiss <chotchki@uw.edu>; cmali <cmali@uw.edu>

**Subject:** RE: Z14141

Hi Charlotte,

Here's the PP from the presentation I gave in January for the BCMC meeting. It includes Bob and Audrey's data on the necropsies from AZ over the years.

Anything else you need, let me know! A GI bug hit my daughter so I'm home today while Adam studies for his COMLEX exam on Monday but I'm checking emails when she's distracted with toys.

Tess

---

**From:** Charlotte E. Hotchkiss <chotchki@uw.edu>

**Sent:** Thursday, June 13, 2019 7:58 AM

**To:** cmali <cmali@uw.edu>

**Cc:** Tess House <th81@uw.edu>

**Subject:** RE: Z14141

Thanks!

Do you by any chance have:

Any data on the cocci vaccine study that Lee and Jeremy did?

Any old presentations by Lee or Cathy on Valley Fever? (Tess – did you do one? I have a memory of one, but I don't think you did it for a working group so I'm not sure what I'm remembering.) Lee did one in January 2016 – I hope that's long enough ago to get away with.

I promise to give credit where it is due, but I don't have time to reinvent the wheel.

Thanks!

Charlotte

---

**From:** cmali <cmali@uw.edu>

**Sent:** Wednesday, June 12, 2019 1:55 PM

**To:** Charlotte E. Hotchkiss <chotchki@uw.edu>

**Cc:** Tess House <th81@uw.edu>

**Subject:** Z14141

Hi Charlotte,

Please see the path report for Z14141 (attached).

Tess wrote a VERY thorough case history.

Bob may be able to provide you with some histo pics...

Let us know what we can help with!

Best,  
Carolyn

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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**From:** Robert D. Murnane <[rmurnane@uw.edu](mailto:rmurnane@uw.edu)>

**Sent:** Thursday, May 9, 2019 12:19 PM

**To:** Audrey Baldessari; Keith Vogel; Charlotte E. Hotchkiss; Kathryn A. Guerriero; Dean Jeffery; Jason D. Laramore; Tess House; cmali

**Subject:** 19-041 and 042 (Z19068 and Z14141)

Hi all:

Please find attached final reports on the above 2 cases. Interestingly, Z14141 was cerebral Valley Fever, and both animals were from the same dam who also was diagnosed clinically with Valley Fever.

Please contact me with any questions, comments or concerns.

Cheers  
Bob

## AAALAC site visit summary and other items

Sally Thompson-Iritani <sti2@uw.edu>

Sat 6/1/2019 8:59 PM

To: u\_wanprc\_az <u\_wanprc\_az@uw.edu>

Cc: Michael J. Mustari <mmustar@uw.edu>; Jane W. Elliott <elliott@uw.edu>; Gail R Ellingson <gellings@uw.edu>; Mark L. Clarke <mlclarke@uw.edu>; Vanessa Quiroz Hotz <vmqh@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; Rita U. Bellanca <rbell@uw.edu>

Hi Arizona Breeding Colony - a quick note on a few topics -

**AAALAC site visit:** I wanted to thank all of you for the extraordinary job you did preparing for and hosting the AAALAC site visit yesterday. The visitors were very complimentary and had the following commendations for the great work that you do.

Commendations:

- Dedication of staff - as exemplified by the animal body condition, well socialized animals, good coats
- Innovation with a unique facility - existing facility and new building
- Professional judgement and proactive approach to Valley Fever - mitigate clinically challenging issue
- Satellite but not isolated - good integration between Seattle and Arizona
- Dedication to social housing in clinical situations
- Positive reinforcement training

AAALAC will be visiting Seattle this next week and do the formal exit briefing on Friday for the University of Washington Animal Care and Use Program - you are all invited to zoom in and listen on Friday if you want and there will be formal communication after the final briefing.

I also wanted to send a few other quick updates regarding on-going items.

**New Building:** The building is progressing thanks to the work of the team in Arizona and Gail and Marty in Seattle. There have been delays and I want to assure everyone that we are dedicated and committed to doing this right so a few delays will benefit the long term goal of having a supreme structure in place to provide an optimal environment for the animals.

**Staffing:** I want to thank all of you for your continued dedication and commitment to the facility. I know that turnover and injuries can take a toll on the staff and morale and everyone at the center appreciates your hard work and the extra effort that you have put in. There are several positions being filled as quickly as possible with the right people to continue the strong care program in place. You will also see that we will be advertising for a Behavior Management person to hire for the Arizona facility. With the upcoming shipment of animals from NIRC it will be very important that we have a person dedicated to BMS and group dynamics of the colony to oversee introductions and breeding group management.

**Performance Development Plans:** It is that time of year again and hopefully you have seen in the Weekly updates that PDP forms are available and your supervisors should be scheduling time to sit down with you and do your performance reviews before the end of June. Jane Elliott and I will be on site at ABC June 25-26<sup>th</sup> if you have any final questions or comments regarding the process. Please feel free to reach out to either one of us if you need help with your forms.

Thank you again for maintaining such a strong program and your continued care and support for the animals, your colleagues and the facility in Arizona. We are lucky to have all of you as part of our team!

**Sally Thompson-Iritani, DVM/PhD, CPIA**

*~ Certified Compassion Fatigue and Human-Animal Bond Practitioner ~*

**Director, Animal Welfare & Research Support | Associate Director, WaNPRC**

206.661.6294 /sti2@uw.edu

Websites: [WaNPRC](#) / [NPRC](#)

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**Thank you to the NIH Office of Research Infrastructure Programs grant P51 OD010425 for supporting WaNPRC.**

**\*Please help us continue to support your research by citing our grant number in publications.\***

*"We all really have the same intent...good communication is going to be one of the things that will bring us together. Intent, though, is a human virtue, not a virtue of the computer" Carol Newton, 1975*

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**Re: Weights/case updates****cjmead2** <cjmead2@uw.edu>

Sat 5/25/2019 7:22 AM

**To:** Tess House <th81@uw.edu>; Danielle Parks <dp546@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>**Cc:** cmali <cmali@uw.edu>

Sounds good, 221 we don't sedate for ultrasounds, since no male in that group. So, we can schedule Z12029 for a BW.

---

**From:** Tess House <th81@uw.edu>**Sent:** Friday, May 24, 2019 1:51 PM**To:** Danielle Parks; Schante M. Hodges; smintner; cjmead2**Cc:** cmali**Subject:** Weights/case updates

Good afternoon Team-

Just a few updates following up on the weight checks in 104, 212, and 221:

104: Z17196- weight is up and weight loss case has been closed. Cleared to return to group.

Z16358-respiratory case is closed, valley fever case open. We will see how this one looks on exam next week and the titer level. Pending these, may be cleared to return to social group with partner.

212: L03310 (ET63)-body weight is up today. Will see what weight is at during the quarterly ultrasounds and if stable or up, will close weight loss case.

221: Z12029-body weight is up today. Will see what weight is at during the quarterly ultrasounds and potentially close case then.

Thank you and have a good weekend!

Dr. H

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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**RE: 19-041 and 042 (Z19068 and Z14141)****Dean Jeffery <daj12@uw.edu>**

Thu 5/9/2019 4:38 PM

**To:** Robert D. Murnane <rmurnane@uw.edu>; Audrey Baldessari <aeb4@uw.edu>; Keith Vogel <vogelk@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>; Jason D. Laramore <jasonl73@uw.edu>; Tess House <th81@uw.edu>; cmali <cmali@uw.edu>

Awesome history Arizona and cool report Bob! I'd definitely be watching for CNS disease (i.e. meningitis) in any future neck pain animals (great job detecting that!).

DJ

---

**From:** Robert D. Murnane <rmurnane@uw.edu>**Sent:** Thursday, May 9, 2019 12:20 PM

**To:** Audrey Baldessari <aeb4@uw.edu>; Keith Vogel <vogelk@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>; Dean Jeffery <daj12@uw.edu>; Jason D. Laramore <jasonl73@uw.edu>; Tess House <th81@uw.edu>; cmali <cmali@uw.edu>

**Subject:** 19-041 and 042 (Z19068 and Z14141)

Hi all:

Please find attached final reports on the above 2 cases. Interestingly, Z14141 was cerebral Valley Fever, and both animals were from the same dam who also was diagnosed clinically with Valley Fever.

Please contact me with any questions, comments or concerns.

Cheers

Bob



**Re: Stool Softeners****Tess House** <th81@uw.edu>

Tue 5/7/2019 5:09 PM

**To:** Keith Vogel <vogelk@uw.edu>; Dean Jeffery <daj12@uw.edu>; cmali <cmali@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>; Jason D. Laramore <jasonl73@uw.edu>**Cc:** Charlotte E. Hotchkiss <chotchki@uw.edu>

He has normal stools. He was a valley fever case but he just hit one year of negative titer status so we are ending his fluconazole today.

Tess

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

**From:** Keith Vogel <vogelk@uw.edu>**Date:** 5/7/19 4:27 PM (GMT-07:00)**To:** Dean Jeffery <daj12@uw.edu>, cmali <cmali@uw.edu>, "Kathryn A. Guerriero" <kag18@uw.edu>, "Jason D. Laramore" <jasonl73@uw.edu>**Cc:** "Charlotte E. Hotchkiss" <chotchki@uw.edu>, Tess House <th81@uw.edu>**Subject:** RE: Stool Softeners

Is he constipated, normal stools or firm hard stools? I don't remember if you said.

Keith

---

**From:** Dean Jeffery <daj12@uw.edu>**Sent:** Tuesday, May 7, 2019 4:15 PM**To:** cmali <cmali@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>; Jason D. Laramore <jasonl73@uw.edu>**Cc:** Charlotte E. Hotchkiss <chotchki@uw.edu>; Tess House <th81@uw.edu>; Keith Vogel <vogelk@uw.edu>**Subject:** RE: Stool Softeners

Lactulose would be another potential cathartic to add to your list. It can be titrated to effect. But don't start too high a dose, or the subsequent diarrhea may just make him strain worse! I have not used lactulose in monkeys but would just take a human dose and scale it down.

DJ

---

**From:** cmali <cmali@uw.edu>**Sent:** Tuesday, May 7, 2019 4:01 PM**To:** Dean Jeffery <daj12@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>; Jason D. Laramore <jasonl73@uw.edu>**Cc:** Charlotte E. Hotchkiss <chotchki@uw.edu>; Tess House <th81@uw.edu>**Subject:** Stool Softeners

Hi Seattle Team!

We have a young male down here in AZ (~4 years old), who has been having recurrent rectal prolapses. We've already placed a purse string on two separate occasions and have been

We're considering the following:

- [illegible]

2/2

## Valley fever cases from 162/142/104

Tess House <th81@uw.edu>

Tue 5/7/2019 3:23 PM

**To:** Schante M. Hodges <shodges3@uwedu>; smintner <smintner@uwedu>; Danielle Parks <dp546@uwedu>; cmali <cmali@uwedu>

**Cc:** cjmead2 <cjmead2@uw.edu>

Hi team-

Z15258 in 162 has had one full year of negative cocci titers so I have closed his valley fever case. All other valley fever cases from 162/142/104 that had cocci titers done on 4/22 or 4/23 are either improving (Z16341, Z16283) or not yet to one full year of negative titers (Z14333).

Sherri and Danielle-please cross off his treatment for tomorrow if you have already printed off the treatment sheets.

Thank you!  
Dr. H

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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**Re: Z17265****Tess House** <th81@uw.edu>

Wed 4/24/2019 9:08 AM

**To:** Charlotte E. Hotchkiss <chotchki@uw.edu>**Cc:** cmali <cmali@uw.edu>

She is not a valley fever case. We drew blood from her yesterday to run a cocci titer. I should get those results in the next week or two.

We did previous rads of her head and neck to check the sinuses and they appeared normal (good symmetry) from what we could see, however, I also am not a specialist when it comes to rads.

She is BAR today and very active. I was not able to see any nasal discharge because that group is moving around quite a bit in the cage. I did catch a look at her hand and it did not look like it was wet from wiping her face.

**Tess**

---

**From:** Charlotte E. Hotchkiss <chotchki@uw.edu>**Sent:** Wednesday, April 24, 2019 8:56 AM**To:** Tess House**Cc:** cmali**Subject:** RE: Z17265

Yes, this one is a genetic oops. Z02173 (Charlie) is her sire, and also the sire of her dam J10160. We don't want to breed her, but she might work for a study if we get her healthy. Does she have Valley Fever?

On the VD it looks to me like there's something odd to the right of the heart, but rads are not my specialty.

Given the history, I wonder if she has something weird anatomically in her sinuses? But we don't have any way to tell that down there. Up here, Joel has actually been able to get a decent image with a nasal scope, but still not all the way up.

If we do want to go ahead with a TTW (which is probably a good idea), we need to make sure we know what to do with it. Even up here when we did one there was a lot of confusion - the hospital lab didn't want to take it, and we didn't have any good way to spin it down so Audrey could make slides to look at.

We can talk more when I get there.  
Charlotte

---

**From:** Tess House <th81@uw.edu>**Sent:** Tuesday, April 23, 2019 3:33 PM**To:** Charlotte E. Hotchkiss <chotchki@uw.edu>**Cc:** cmali <cmali@uw.edu>**Subject:** Z17265

Hi Charlotte,

Would you be able to run a genetic analysis on this animal? It looks like the sire has left ABC so I cannot tell on the xcel you sent with colony genetics earlier. The sire is Z02173 and the dam is J10160.

I performed a semi-annual exam on Z17265 today and she had clear nasal discharge from her left nostril and increased lung sounds (bilateral, cranial and caudal) but no crackles. Her temp was 102.8. Her

weight has been trending up/she appears to be growing well and she is clinically normal (good activity, no noted coughing). No other abnormalities were on the physical exam. Rads from today are attached. She's slightly rotated on the vd view and I had a better image but unfortunately our machine crashed on us and the image was lost. (Why it had to crash on us for 2 out of 3 sets of rads today is a mystery.)

She has been a previous case of left nasal discharge/nasal regurgitation and it was closed in August. At that time there was clear discharge from the left nostril but no abnormalities were noted on auscultation and there was a mild area of consolidation on the right middle lobe. We have done nasal swabs on her in the past (in April of last year was 2+ Enterococcus, 4+ Klebsiella, 4+ normal nasopharyngeal flora) and I did collect another swab on her today. I cannot palpate or appreciate any structural changes.

I'm not sure if I should go ahead and treat her with the changes I was hearing today or if we should consider doing a TTW on Thursday when you're here (it's been a couple years since I've done one on a dog and I'm nervous to do this on a little 1.9 kg juvenile by myself) or if we should just monitor. Caroline said she is inbred but I don't know the degree to which she's inbred. I also am uncertain what the likelihood is of this being something structural that I can't visualize that she might outgrow.

Any thoughts on this are greatly appreciated. I hate to give you one more thing to do before you travel but also wanted to mention it asap in case we want to sedate her Thursday morning and get another look.

Thanks,  
Tess

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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**RE: Soil samples****Gail R Ellingson** <gellings@uw.edu>

Tue 4/23/2019 9:09 AM

**To:** Tess House <th81@uw.edu>**Cc:** cmali <cmali@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>

Tess,

Yes, this is the perfect week for this, I meet at the Community on Thursday so we have time to talk before then.

Gail

---

**From:** Tess House <th81@uw.edu>**Sent:** Monday, April 22, 2019 1:23 PM**To:** Gail R Ellingson <gellings@uw.edu>**Cc:** cmali <cmali@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>**Subject:** Soil samples

Hi Gail,

I was at a conference on valley fever recently and a researcher and professor at NAU in Flagstaff is interested in collaborating with us. Her name is Bridget Barker and she is interested in obtaining soil samples from a few sites around the facility for her research. I know you have excellent connections with the Community here, would you be able to inquire if this would be something she could do? If you prefer, I would be happy to talk with you more about this when you are here this week.

Best,

Tess

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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**RE: cocci results****Tess House** <th81@uw.edu>

Mon 4/22/2019 7:22 AM

**To:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>

No new cases from the cocci titers from either dates.

The two current valley fever cases from 4/8 exams are either stable (Z17137; no change in titer values compared to last time) or improved (Z17135; negative for the first time, last titer was IgG 1:2 and IgM negative).

Dr. M-I'll leave the sheet for 4/8/19 on your desk with my notes on it for you.

---

**From:** cjmead2 <cjmead2@uw.edu>**Sent:** Monday, April 22, 2019 7:03 AM**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>**Subject:** cocci results

111/121: 4/8 and 4/9 cocci results downloaded into panel reports

**RE: Z07023****Charlotte E. Hotchkiss** <chotchki@uw.edu>

Mon 4/15/2019 7:58 AM

**To:** Kathryn A. Guerriero <kag18@uw.edu>; Robert D. Murnane <rmurnane@uw.edu>; Jinhee P Thom <jinheep@uw.edu>; Audrey Baldessari <aeb4@uw.edu>; Keith Vogel <vogelk@uw.edu>; Jason D. Laramore <jasonl73@uw.edu>; Dean Jeffery <daj12@uw.edu>; Tess House <th81@uw.edu>; cmali <cmali@uw.edu>; Matt Hamlin <zen42@uw.edu>

Yes. Forgot to add that. Titers for both were still positive in March, and he was still on fluconazole.  
Charlotte

---

**From:** Kathryn A. Guerriero <kag18@uw.edu>**Sent:** Monday, April 15, 2019 7:52 AM

**To:** Charlotte E. Hotchkiss <chotchki@uw.edu>; Robert D. Murnane <rmurnane@uw.edu>; Jinhee P Thom <jinheep@uw.edu>; Audrey Baldessari <aeb4@uw.edu>; Keith Vogel <vogelk@uw.edu>; Jason D. Laramore <jasonl73@uw.edu>; Dean Jeffery <daj12@uw.edu>; Tess House <th81@uw.edu>; cmali <cmali@uw.edu>; Matt Hamlin <zen42@uw.edu>

**Subject:** RE: Z07023

Didn't this animal also have a history of Valley Fever and Chagas (antibody positive)? I remember him from last summer with his chronically, but mild, elevated kidney values.

Kate

---

**From:** Charlotte E. Hotchkiss <chotchki@uw.edu>**Sent:** Monday, April 15, 2019 7:48 AM

**To:** Robert D. Murnane <rmurnane@uw.edu>; Jinhee P Thom <jinheep@uw.edu>; Audrey Baldessari <aeb4@uw.edu>; Keith Vogel <vogelk@uw.edu>; Jason D. Laramore <jasonl73@uw.edu>; Dean Jeffery <daj12@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>; Tess House <th81@uw.edu>; cmali <cmali@uw.edu>; Matt Hamlin <zen42@uw.edu>

**Subject:** RE: Z07023

To provide some background on this animal, Z07023 was noted to have an inguinal hernia in 2016 with ulcerated skin lesions. Lee did a hemi-castration and hernia repair down in Arizona 1/11/16. He also noted a large liver in May 2016. Since 2017 he has had a slight elevation in BUN and sometimes creatinine, so maybe the surgery caused an insult to the ureter.

His most recent semi-annual physical was on 3/22/19, and his BUN was mildly elevated, but less than it had been previously so it did not raise any flags. The rest of the physical exam and the CBC were normal.

We will schedule his partner for an exam.  
Charlotte

---

**From:** Robert D. Murnane <rmurnane@uw.edu>**Sent:** Saturday, April 13, 2019 6:18 PM

**To:** Jinhee P Thom <jinheep@uw.edu>; Audrey Baldessari <aeb4@uw.edu>; Keith Vogel <vogelk@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; Jason D. Laramore <jasonl73@uw.edu>; Dean Jeffery <daj12@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>; Tess House <th81@uw.edu>; cmali <cmali@uw.edu>; Matt Hamlin <zen42@uw.edu>

**Subject:** Z07023



Hi all:

The above animal was just necropsied, and had a severe, likely subacute to perhaps chronic nephritis that I suspect was bacterial (culture pending). There also was a hepatopathy that may be amyloidosis but also possibly infectious. Otherwise pretty normal findings (focal chronic pneumonia).

Cultures of kidney, liver, bladder (moderate possible puss in lumen) and the abnormal lung submitted for aerobic microbiology. I will rush histo however we have to send it out because Mac is in Europe! (yes we actually need 2 histotechnologists but fat chance of that).

PLEASE KEEP A CLOSE EYE ON THIS ANIMALS PARTNER due to the possibility of a contagious disease.

Histo should be out about the end of next week...

Feel free to send this info to other appropriate personnel.

See me if any questions.

Bob

---

**From:** Jinhee P Thom <[jinheep@uw.edu](mailto:jinheep@uw.edu)>  
**Sent:** Saturday, April 13, 2019 4:08 PM  
**To:** Robert D. Murnane <[rmurnane@uw.edu](mailto:rmurnane@uw.edu)>  
**Subject:** Fw: Z07023 in W216

Bob, I'm on vacation but could you let me know what you find? This guy was a very sweet breeder male. I'm in shock right now.

Thanks!  
Jinhee

---

**From:** Keith Vogel <[vogelk@uw.edu](mailto:vogelk@uw.edu)>  
**Sent:** Saturday, April 13, 2019 1:37:43 PM  
**To:** Matt Hamlin; WaNPRC Clinical Seattle  
**Cc:** WaNPRC Husbandry Western; WaNPRC BMS  
**Subject:** Re: Z07023 in W216

Update on Z07023. I was monitoring his recovery which appeared to be a lot slower than I would expect. I started to check on him every 15 minutes and roll him over. Good heart rate, normal respirations and very pink until my last check at 11:45 when I found him deceased. Bob Murnane is coming in to perform a necropsy,

Keith

---

**From:** Wanprc\_clinical\_seattle <[wanprc\\_clinical\\_seattle-bounces@mailman11.u.washington.edu](mailto:wanprc_clinical_seattle-bounces@mailman11.u.washington.edu)> on behalf of Keith Vogel <[vogelk@uw.edu](mailto:vogelk@uw.edu)>  
**Sent:** Saturday, April 13, 2019 12:24:31 PM  
**To:** Matt Hamlin; WaNPRC Clinical Seattle  
**Cc:** WaNPRC Husbandry Western; WaNPRC BMS  
**Subject:** Re: [Wanprc\_clinical\_seattle] Z07023 in W216

Hello,

Strange case. He is not bloated appeared to be slightly shocky and painful. Fairly firm stool and mild dehydration. I sedated him and definitely not bloated. Respiratory rate and effort normal but vocalized when Matt and I picked him up from the cage after sedation. The only unusual PE finding was his left kidney was very firm and enlarged, which has not ever been noted before (Matt's my witness). I gave fluids SQ, started on meloxicam and enrofloxacin. Grabbed a CBC and chemistry before starting treatment and attempted to get a urine sample (no luck on the urine even though successful catheterization as shown by a few drops of urine. Now here is the strange part after having him out for over an hour on one dose of ketamine he was acting and sleeping quietly when we rechecked the kidney and it was now 30 to 50% of its original volume. Working differential is a kidney stone or sludge blocking the ureter.

Keith

---

**From:** Wanprc\_clinical\_seattle <[wanprc\\_clinical\\_seattle-bounces@mailman11.u.washington.edu](mailto:wanprc_clinical_seattle-bounces@mailman11.u.washington.edu)> on behalf of Matt Hamlin <[zen42@uw.edu](mailto:zen42@uw.edu)>  
**Sent:** Saturday, April 13, 2019 9:15:50 AM  
**To:** WaNPRC Clinical Seattle  
**Cc:** WaNPRC Husbandry Western; WaNPRC BMS  
**Subject:** [Wanprc\_clinical\_seattle] Z07023 in W216

Hello all! When I came into the vivarium at about 8:40 AM today AT2 Justin Davis informed me that Ernest had found Z07023 {W216, E2} lethargic and moving very slowly this morning when he fed the room at about 7:20. I went into W216 first thing and found him hunched forward with his lower paws grasping the guillotine door of his group 5 Seattle cage. He was unresponsive to me touching his feet. His eyes are open but he does not seem to be tracking movement. He is closed off from his breeding partner for the time being. I spoke with Ernest and Vince and it looks like this animal may have had a seizure or other neurological event of some sort. They report that he was slow at 7:20 then lying completely down 15 minutes later, at which point Vince paged Keith, who is coming in to evaluate.-Matt

**RE: Vet Services Overview AZ****Tess House** <th81@uw.edu>

Fri 3/29/2019 7:10 AM

**To:** Dennis Raines <rained@uw.edu>**Cc:** cmali <cmali@uw.edu>

Hi Dennis,

Sorry for the delay on this, am working on going through old e-mails and realized I did not reply to this. We do have a veterinary orientation with all new staff that includes this information as well as the differences between sedation vs. anesthesia and the differences between an animal emergency and an urgency. This was a powerpoint that Charlotte created and I have just updated when we've had staff changes (since there is a slide that lists who all the veterinary technicians are.

I also have started doing an introduction to valley fever presentation with all staff and included that in my most recent orientation with Israel, Christie, Owen, and Noah this week. This presentation was in response to a discussion I was having with Melinda about instances of staff that moved to Arizona and were not familiar with this disease. Since it affects people and animals (but is not directly contagious) Melinda and I thought it would be good to have a brief overview for everyone just so they are aware of this disease that is endemic to Arizona.

Both of these powerpoints are kept on the Z drive currently and I have shared with Dr. M where they are located so either one of us can do these orientations for staff in the future. In general, I think it might be good to stay with this format rather than converting to an online format because I typically find that the staff will have some excellent questions come up and we have some great discussions.

If there are any other questions you have, let me know.

Best,  
Tess

---

**From:** Dennis Raines <rained@uw.edu>**Sent:** Friday, January 11, 2019 11:22 AM**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>**Subject:** Vet Services Overview AZ

Hi Tess+ Carolyn,

In Seattle we have a Vet services overview that's only for new people, it's Seattle centric, but covers "people who work with animals are trained in recognizing signs of illness" so basically all ATs + Vet Techs. After talking with Charlotte, we should have an AZ equivalent for staff there.

<https://goo.gl/forms/0wmjMSoGjxYidPuG2>

In Seattle it's an online module (above) then an in-person session with Dean. Feel free to come up with what works for your staff there. If it's online, I can help assemble it into a training module for you and add it as a requirement. If you want to go with an in-person training, I can put it as a requirement for all new people and you can train as needed when they start. This will probably need to be retroactively added to all of the current staff, as we didn't really have an equivalent prior.

Let me know if you have any questions, or if I can help out.

Dennis Raines  
Training and Orientation Coordinator  
Washington National Primate Research Center

Center Programs, Administration and Operations  
Office I-309 - 206.685.9979  
M-W, F 8:00 AM - 4:00 PM  
Thurs Telecommute

### 3/29 Observations 232

Danielle Parks <dp546@uw.edu>

Fri 3/29/2019 2:15 PM

To: cmali <cmali@uwedu>; Tess House <th81@uwedu>

Cc: cjmead2 <cjmead2@uw.edu>

Hello,

K10112 in 232 is on day 3 of fluid feces. She has an infant on her so we are not able to weigh her. She is on Tx for valley fever and is easy to treat. Please let me know if we should start her on anything else.

Thank you and HAPPY FRIDAY!,

Danielle Parks

Veterinary Specialist I

WaNPRC, Arizona Breeding Colony

4202 N Higley Rd.

Box 20836

Mesa, AZ 85215

## AZ shipment list of potentials

Tess House <th81@uw.edu>

Fri 3/22/2019 12:53 PM

To: Charlotte E. Hotchkiss <chotchk@uw.edu>

Cc: cmali <cmali@uw.edu>; cjmead2 <cjmead2@uw.edu>; Jim Murphy <murphyjm@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>

Hi Charlotte,

A follow up point Carolyn, Caroline, Jim, and I were discussing after the meeting today was which animals could potentially be sent to Seattle to free up some space here in Arizona. We're not sure of what animals you would prefer/need for study and/or breeding up there but here are some groups listed below that would make sense (at least on our end) to ship for you to mull over. I've noted any animal with a currently open valley fever case as a VF after the number for you in case that makes a difference.

171 B/C female group: Z14134, Z14140, Z14308, Z16043

152 female group: Z13337(VF), Z14001(VF), Z14150, Z14323(VF), Z14345, Z14367

162 male group: Z13288, Z14007, Z14020, Z14055, Z14176, Z14289, Z14333(VF), Z15032, Z15258(VF) \*\*\*unless there are certain males here you want to retain for breeding in AZ\*\*\*

Males from the current juvenile groups 111, 121, and 122: Z16284, Z16287, Z16297, Z16300, Z16328, Z16339, Z16353, Z17046, Z17050, Z17053, Z17064, Z17091, Z17094, Z17137(VF), Z17157, Z17160, Z17256, Z16277, Z16324, Z17001, Z17049, Z17063, Z17072, Z17083, Z17085, Z17096, Z17136, Z17159, Z17184, Z15329, Z15331, Z15404, Z16041, Z16304, Z16338, Z16343 \*\*\*unless there are certain males here you want to retain for breeding in AZ\*\*\*

Tess

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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**Re:****cmali** <cmali@uw.edu>

Thu 3/21/2019 2:33 PM

**To:** cjmead2 <cjmead2@uw.edu>; Tess House <th81@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>; Danielle Parks <dp546@uw.edu>**GM35 Valley Fever case closed after 11 months of negative titers!! Fluconazole has been discontinued****Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501

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**From:** cjmead2 <cjmead2@uw.edu>**Sent:** Thursday, March 21, 2019 1:12 PM**To:** Tess House; cmali**Subject:**

M06139 cocci titer download into panel reports

## Observation 3/20

Danielle Parks <dp546@uw.edu>

Wed 3/20/2019 8:15 AM

To: Tess House <th81@uw.edu>; cmali <cmali@uw.edu>

Cc: cjmead2 <cjmead2@uw.edu>

Good Morning!

Jennifer wrote on upstairs observation sheet that R10113 in 221 was coughing.

This animal is on treatment for valley fever and will be examined for semi-annual health checks on 4/1/2019. An x-ray is scheduled for her also.

Thanks,

Danielle Parks

Veterinary Specialist I

WaNPRC, Arizona Breeding Colony

4202 N Higley Rd.

Box 20836

Mesa, AZ 85215



**RE: Valley fever by room report**

Tess House &lt;th81@uw.edu&gt;

Mon 3/18/2019 9:58 AM

**To:** Michael H Shim <mikeshim@uw.edu>**Cc:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>

Thanks Mike! This is great. We appreciate all your help on this!

Tess

---

**From:** Michael H Shim <mikeshim@uw.edu>**Sent:** Monday, March 18, 2019 9:26 AM**To:** Tess House <th81@uw.edu>**Cc:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>**Subject:** RE: Valley fever by room reportSorry Tess, I was filtering the other way.  
Should be good now.

Thank you,

Michael Shim | mikeshim@uw.edu  
206.543.0116 | 206.823.4140 (Mobile)

---

**From:** Tess House [mailto:th81@uw.edu]**Sent:** Monday, March 18, 2019 9:16 AM**To:** Michael H Shim <mikeshim@uw.edu>**Cc:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>**Subject:** RE: Valley fever by room report

Hi Mike,

Yes, something like this is a great start! I'm noticing that quite a few of the adults are having values from 2014 and 2015 listed but not more recent results. Is there a way to change this report so it is the most recently observed cocci titers?

For example, I'm looking at AA232 right now and A03194 on this report is as follows:

A03194	MN	F	AA232A-B-C	12/16/14	IgG Titer Result	negative (-)
	MN	F	AA232A-B-C	10/7/14	IgG Titer Result	negative (-)
	MN	F	AA232A-B-C	6/17/14	IgG Titer Result	positive (+)
	MN	F	AA232A-B-C	6/12/13	IgG Titer Result	negative (-)
	MN	F	AA232A-B-C	11/18/34	IgG Titer Result	negative (-)

Yet when I pull up this animal's panels report and look at the cocci tab, I find these more recent cocci titers:

3/5/19		negative (-)	<1:1	negative (-)	<1:1
9/11/18		negative (-)	<1:1	negative (-)	<1:1
6/27/18		negative (-)	<1:1	negative (-)	<1:1
3/20/18		positive (+)	1:2	negative (-)	<1:1
9/18/17		positive (+)	1:4	negative (-)	<1:1
9/13/16		negative (-)	<1:1	negative (-)	<1:1
3/15/16	VIFE Automated Import on 29- JUN-16	negative (-)			

<b>3/15/16</b>		negative (-)	<1:1	negative (-)	<1:1
<b>9/14/15</b>	VIFE Automated Import on 21- SEP-15	negative (-)			
<b>7/7/15</b>		negative (-)	<1:1	negative (-)	<1:1

Tess

---

**From:** Michael H Shim <mikeshim@uw.edu>  
**Sent:** Friday, March 15, 2019 4:57 PM  
**To:** Tess House <th81@uw.edu>  
**Cc:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>  
**Subject:** RE: Valley fever by room report

Hi Tess,  
 We can start with something like this and modify as you wish.  
 It's in the ARMS – Arizona folder.

Thank you,

Michael Shim | mikeshim@uw.edu  
 206.543.0116 | 206.823.4140 (Mobile)

---

**From:** Tess House [mailto:th81@uw.edu]  
**Sent:** Friday, March 15, 2019 1:07 PM  
**To:** Michael H Shim <mikeshim@uw.edu>  
**Cc:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>  
**Subject:** Valley fever by room report

Hi Mike,

Is there any way we can set up a report to check cocci titers by room? As we're going through the colony for semi-annual exams and get our results back, it would be nice to be able to look at a group rather than typing in an individual animal number and checking. I don't know if we could have something similar to the weight form (ABC) report where it lists the last five values for the animals in a specific room?

This isn't mission critical but would be nice to have when you have the time available.

Best,  
 Tess

Theresa (Tess) House, DVM MPH  
 Supervisory Veterinarian  
 Washington National Primate Research Center  
 Arizona Breeding Colony  
 Office phone 206.685.1842  
 Mailing address- P.O. Box 20836/Mesa, AZ 85277

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## New staff orientation powerpoints

Tess House <th81@uw.edu>

Mon 3/18/2019 8:33 AM

To: cmali <cmali@uw.edu>

Here are where to find the two powerpoints to go over with new staff:

Z:\Arizona\BMS & Vet Orientation

This folder contains the powerpoint that Charlotte created called Veterinary Orientation to the WaNPRC-AZ

Z:\Arizona\Vet Services\Miscellaneous

This folder contains the powerpoint that I created for the staff this fall regarding Valley Fever called Valley Fever ABC Intro presentation. Melinda had suggested that we do this with each staff member as well.

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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## Valley Fever Updates

Tess House <th81@uw.edu>

Thu 3/7/2019 9:49 AM

To: Charlotte E. Hotchkiss <chotchk@uw.edu>; Sally Thompson-Iritani <si2@uw.edu>; cmali <cmali@uw.edu>;  
cjmead2 <cjmead2@uw.edu>

Good morning-

I've added the updates word document for today to the Valley Fever Teams page.

Thank you!

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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## 142 cases

Tess House <th81@uw.edu>

Fri 3/1/2019 5:25 PM

To: cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>

Case updates for this room:

DH46 diarrhea case was closed.

PDr2's case for trauma is still open-let me know if you want the meloxicam restarted/if the techs noted any scratching or discomfort over the next few days. It ended today.

HK97's trauma case was closed.

FLO4's trauma case was closed, weight loss case remains open (weight up but barely).

ID14 diarrhea case closed, valley fever case remains open.

Thanks!

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian-Arizona Breeding Colony  
Washington National Primate Research Center  
e-mail: [th81@uw.edu](mailto:th81@uw.edu)  
office: 206-685-1842

## New staff orientation

Tess House <th81@uw.edu>

Wed 11/20/2019 10:22 AM

To: cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>

Hi ladies,

I've reached out to Kelly about the latest ATs and when to do an orientation with them but have not yet gotten prospective dates from her. In the event that I'm not able to do this in December (and moving forward) here are the locations of the two powerpoints to review with all new staff.

Veterinary Orientation PP

Z:\Arizona\BMS & Vet Orientation (Select the Veterinary Orientation to the WaNPRC-AZ PP)

Valley Fever PP (This was something I started doing after discussing with Melinda the occ health risk/awareness of staff to VF, esp. when we have people move here from non-endemic states)

Z:\Arizona\Vet Services\Miscellaneous (Select the Valley Fever ABC Intro Presentation)

There is also a sedation powerpoint for training AT's in the same folder as the Vet orientation PP.

Any questions, let me know!

Dr. H

## Completed Weights for 2/27/2019

Simone Diaz <sdi4@uw.edu>

Wed 2/27/2019 10:28 AM

To: Tess House <th81@uw.edu>; cmali <cmali@uw.edu>; Caroline Mead <cjmead2@wanprc.org>

Cc: Kelly L. Carbone <kellyc29@uw.edu>

Hi All,

Christie and I completed body weights for rooms AA121 and AA122.

For room AA121, Z16283 was an animal of concern, as well as an animal that needed blood work. This animal had a weight decrease and was brought to VS, who then pulled it from the group. Z17196 was also an animal of concern; this animal had a very slight decrease and was shown to VS, who decided to leave in the group and follow up in two weeks when the group is weighed again. Everyone else had good weights, however there were three prolapses. Z17085, Z17138, and Z17170, all had prolapses and were placed into the "C" cage. All three animals self corrected their prolapses and were introduced back into their group. Z17158 was removed from room AA104, weighed, and introduced back into the group as well.

For room AA122, there were two animals of concern, Z16004 and Z16005, due to their valley fever. Z16004, had a weight decrease and was brought to VS attention, who decided to leave in the group until they are weighed again in two weeks. Z16005 had a positive weight gain and was left in the group. All other animals had good weights, however, Z16076, had a slight decrease in its weight, so I brought this animal to VS attention so we can monitor its weight in two weeks when they get reweighed.

If there are any questions, feel free to reach out.

Thank you,  
Simone

**RE: Case/Sample Advice****Robert D. Murnane** <rmurnane@uw.edu>

Fri 2/22/2019 12:25 PM

**To:** cmali <cmali@uw.edu>; rgrant <rgrant@uw.edu>**Cc:** cjmead2 <cjmead2@uw.edu>; Tess House <th81@uw.edu>; Audrey Baldessari <aeb4@uw.edu>

Hi all:

Another option is to make smears at ABC and then send them to Audrey for analysis. If it is Valley Fever, it is likely to show up in a smear...

Cheers

Bob

---

**From:** cmali <cmali@uw.edu>**Sent:** Friday, February 22, 2019 11:22 AM**To:** rgrant <rgrant@uw.edu>**Cc:** cjmead2 <cjmead2@uw.edu>; Tess House <th81@uw.edu>; Audrey Baldessari <aeb4@uw.edu>; Robert D. Murnane <rmurnane@uw.edu>**Subject:** Case/Sample Advice

Hi Richard,

We have an animal that we did a joint tap in last week (see attached report) for non-weight bearing lameness in a hind limb. Unfortunately we were not able to get enough fluid for culture and sensitivity. The animal was put on treatment with NSAIDS and Antibiotics (Baytril) and is not getting better, and in fact, may be getting worse...

The original sample was sent to IDEXX and they were contacted regarding further sample submission (see email chain below). One of our differentials is localized coccidiomycosis. Also on the list is a septic joint and immune mediated arthritis. In order to rule this out, the referring pathologist suggested we do a PCR for cocci but stated that they were unable to do this at IDEXX. She also suggested testing for rickettsial diseases.

Is this something that your lab can do? If so, please let us know what samples you would like submitted, how they should be submitted, and where they should be sent to (via FEDEX?).

Any advice on the case is appreciated.

Best,  
Carolyn

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501

**Dare 2 Care...** | explore [UW's Compassion Fatigue Program](#)





**From:** Tess House <th81@uw.edu>  
**Sent:** Friday, February 22, 2019 10:38 AM  
**To:** cjmead2; cmali  
**Subject:** FW: IDEXX Results (Final): (Cit)WANPRC (Pt)Z17139 (Ord)02/14/2019

I just got off the phone with Dr. Jay and she is recommending the following:

- 1) Try to submit both slides/smears and fluid from the stifle-if it's enough to do C and S we can check that, otherwise she will look at the slides and compare it to the previous ones
- 2) Tap the opposite knee as well and submit slides on that knee
- 3) Do a cocci PCR test in case this is cocci but too localized or too early for the titer to go up (we may want to just send out a cocci titer on him to protatek anyways, she didn't know cost and availability of the PCR test for cocci-Caroline can you check the Idexx book you have to see if they have it or if we need to look elsewhere?)

She did comment that in some cases of CCL tears, she has seen neutrophilic inflammation like this but we still discussed the possibility of immune-mediated, localized valley fever, and bacterial infection not responding to therapy. She also threw out the idea of tickborne illness.

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Thursday, February 14, 2019 11:11 AM  
**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>  
**Subject:** IDEXX Results (Final): (Clt)WANPRC (Pt)Z17139 (Ord)02/14/2019

**Re: Completed Weights for 2/20/2019**

cjmead2 <cjmead2@uw.edu>

Wed 2/20/2019 11:22 AM

**To:** cmali <cmali@uwedu>; Tess House <th81@uwedu>

Z17135 and Z17137 are our valley fever Tx

Z17064 looks really good

Z16287, looks hydrated, just put in on 12/12 had campy, we can either pull or weigh again on Monday

(The body weight in Feb 6 entered wrong should be 2.87kg

**From:** cmali <cmali@uw.edu>

**Sent:** Wednesday, February 20, 2019 10:56:25 AM

**To:** Simone Diaz; Tess House; Caroline Mead

**Cc:** Kelly Carbone

**Subject:** Re: Completed Weights for 2/20/2019

Thanks Simone!

Caroline: please take a look at Z16287 and Z17064 for hydration and general condition. These guys are pretty close to 10% weight loss. If you have any concerns, please pull and schedule for sedated PE/CBC/CHM/Cocci as the schedule allows over the next 2 days.

Z17135 and Z17137 both look great and are release from weight monitoring.

Thanks team!!!

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



## Dare 2 Care... | explore [UW's Compassion Fatigue Program](#)

**From:** Simone Diaz <simone.diaz@wanprc.org>

**Sent:** Wednesday, February 20, 2019 10:48 AM

**To:** Tess House; cmali; Caroline Mead

**Cc:** Kelly Carbone

**Subject:** Completed Weights for 2/20/2019

Hi All,

Christie and myself completed weights for room AA111.

Everybody's weights were good, minus a few animals.

VS had concerns about animals Z17135 and Z17137; Z17135 had a slight weight decrease and Z17137 has a positive weight increase but had a prolapse. Both animals were placed in the "C" cage, Z17137 appeared to self-correct its prolapse.

We had two animals, Z16287 and Z17064, that had slight weight decrease, nothing over 10% of their body weights but I wanted to make note of them for future weights. Both of these animals were also placed in the "C" cage just in case VS wanted to see them or pull them.

If anyone has any questions, feel free to reach out.

Thanks,  
Simone

## RE: Thoughts on Coccidiomycosis Case

Tess House <th81@uw.edu>

Thu 2/7/2019 1:15 PM

**To:** Kathryn A. Guerriero <kag18@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; Dean Jeffery <daj12@uw.edu>; Keith Vogel <vogelk@uw.edu>; Jason D. Laramore <jasonl73@uw.edu>  
**Cc:** cmali <cmali@uw.edu>

Catching up on e-mail now-I agree with Kate that it usually doesn't provide much additional information, however, sometimes it's nice to have the baseline rads in the event of them later on progressing to clinical symptoms like coughing. If we have a new valley fever case that doesn't have respiratory symptoms and normal auscultation when we pulled for the cocci titer we will usually do rads the next time we sedate an animal for a follow up.

Valley fever cases I dealt with in dogs I always tried to get chest and extremity rads on but getting rads on them was easier...unless they went full Chihuahua on me.

Tess

---

**From:** Kathryn A. Guerriero <kag18@uw.edu>  
**Sent:** Thursday, February 7, 2019 12:47 PM  
**To:** Charlotte E. Hotchkiss <chotchki@uw.edu>; Dean Jeffery <daj12@uw.edu>; Keith Vogel <vogelk@uw.edu>; Jason D. Laramore <jasonl73@uw.edu>  
**Cc:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>  
**Subject:** RE: Thoughts on Coccidiomycosis Case

My 2 cents: if she sounds fine and no clinical signs, radiograph probably won't give you that much more useful informations, however the curious George in me says to go for radiographs (although I would wait for the planned sedation for TB testing since it isn't urgent – no need to sedate her an extra time).

Kate

---

**From:** Charlotte E. Hotchkiss <chotchki@uw.edu>  
**Sent:** Thursday, February 7, 2019 8:47 AM  
**To:** Dean Jeffery <daj12@uw.edu>; Keith Vogel <vogelk@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>; Jason D. Laramore <jasonl73@uw.edu>  
**Cc:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>  
**Subject:** RE: Thoughts on Coccidiomycosis Case

I don't recall her ever showing clinical signs of Valley Fever, so my plan with her was just to keep treating until we could get the titer to go negative. (I'm also not great at interpreting chest rads.) But I will defer to the Arizona vets because they have a lot more experience with cocci.  
Charlotte

---

**From:** Dean Jeffery <daj12@uw.edu>  
**Sent:** Wednesday, February 6, 2019 5:36 PM  
**To:** Charlotte E. Hotchkiss <chotchki@uw.edu>; Keith Vogel <vogelk@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>; Jason D. Laramore <jasonl73@uw.edu>  
**Cc:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>  
**Subject:** Thoughts on Coccidiomycosis Case

Hi Clinicians,

This can be discussed at our next clinical rounds, but M10123 (coccidiomycosis) had a semi-annual exam yesterday. No abnormalities noted but a mild decrease in weight (0.5kg over 1 week, so likely mostly due to box weight vs fasted) and BCS (I called her a 2/5, so this could be totally just subjective). Anyhow, she has a mild eosinophilia (0.92, down from 2.71 in Aug/18) and I was thinking this could be related to ongoing coccidiomycoses. Our dose is currently 100mg fluconazole which should be high enough based on literature I saw. So I'm wondering if I should bother with thoracic rads in an animal with

normal auscultation and no clinical signs, or just repeat bloodwork near the end of Mar to see if we should keep the fluconazole going beyond that point. If people have opinions, we can talk at clinical rounds but I wonder if any of you have seen eosinophilia persist even after a case was considered cured?

Thanks,

DJ

**Re: Cocci in macaques**

cmali &lt;cmali@uw.edu&gt;

Wed 1/23/2019 9:34 AM

**To:** Tess House <th81@uw.edu>

Sounds good!!

Sent from my iPhone

On Jan 23, 2019, at 8:31 AM, Tess House &lt;th81@uw.edu&gt; wrote:

I got this email as a result of the BCMC meeting last week-Luis was a diagnostic lab vet from Southwestern that was sitting next to me at the meeting on Wednesday. I replied back already to Bridget to see what the dates were in February and maybe the three of us can get together? I'm going to shoot a heads up to Sally and Charlotte as well.

---

**From:** Bridget Marie Barker [<mailto:Bridget.Barker@nau.edu>]**Sent:** Tuesday, January 22, 2019 2:48 PM**To:** Tess House <th81@uw.edu>**Subject:** Cocci in macaques

Dear Tess,

I got your contact info from Jason Ladner- collaborator with Luis Giavedoni. I was at a Gordon conference last week and missed the visit, but Jason mentioned to me that you might be interested in collaboration?

I am working with John Altin at TGen on some novel approaches to understanding MHCI and II interactions with Cocci peptides, and it seems like a great idea to find a way to use the naturally infected primates as a source of blood/tcells?

I'll be down in Phoenix weekend after next for my bday, and again in late Feb for a meeting with some folks at ASU. Maybe we can find a time to chat- even if briefly?

Best,

Bridget

--

Bridget Marie Barker, Ph.D.  
Assistant Professor  
Associate Director NAU ABSL3  
Pathogen and Microbiome Institute  
Northern Arizona University  
PO Box 4073  
Flagstaff AZ 86011  
928-523-6074  
[bridget.barker@nau.edu](mailto:bridget.barker@nau.edu)

<https://www.valley-fever.com>

<https://tinyurl.com/yctcrynr>

**RE: Preparation of an R01 grant to study Valley Fever****Robert D. Murnane** <rmurnane@uw.edu>

Mon 1/14/2019 11:47 AM

**To:** Deborah L Fuller <fullerdh@uw.edu>; Robin J Luteyn <rluteyn@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; Audrey Baldessari <aeb4@uw.edu>; Michael J Gale <mgale@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; Tess House <th81@uw.edu>; cmali <cmali@uw.edu>  
**Cc:** Courtney A. Miller <cmiller6@uw.edu>

Hi all:

I found the animal that had a culture, and the result was *Coccidioides immitus* (which goes to show my memory is not what it used to be!). The case number was 16-009 animal A09106.

Cheers  
Bob

---

**From:** Deborah L Fuller <fullerdh@uw.edu>**Sent:** Friday, January 11, 2019 2:51 PM**To:** Robin J Luteyn <rluteyn@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; Robert D. Murnane <rmurnane@uw.edu>; Audrey Baldessari <aeb4@uw.edu>; Michael J Gale <mgale@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; Tess House <th81@uw.edu>; cmali <cmali@uw.edu>**Cc:** Courtney A. Miller <cmiller6@uw.edu>**Subject:** Re: Preparation of an R01 grant to study Valley Fever

Great. Ill join you there.I'm at a seminar so will be about 5 min late.

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

**From:** Robin J Luteyn <rluteyn@uw.edu>**Date:** 1/11/19 14:49 (GMT-08:00)**To:** Deborah L Fuller <fullerdh@uw.edu>, Sally Thompson-Iritani <sti2@uw.edu>, "Robert D. Murnane" <rmurnane@uw.edu>, Audrey Baldessari <aeb4@uw.edu>, Michael J Gale <mgale@uw.edu>, "Charlotte E. Hotchkiss" <chotchki@uw.edu>, Tess House <th81@uw.edu>, cmali <cmali@uw.edu>**Cc:** "Courtney A. Miller" <cmiller6@uw.edu>**Subject:** Re: Preparation of an R01 grant to study Valley Fever

Hi Dr. Fuller,

The meeting will be held in WaNPRC's I-Wing 3rd floor conference room.

Best,  
Robin

-----  
Robin Luteyn  
DPR & CPRO, WaNPRC  
University of Washington



[rluteyn@uw.edu](mailto:rluteyn@uw.edu)

1 (206) 685-7159

---

**From:** Deborah L Fuller <[fullerdh@uw.edu](mailto:fullerdh@uw.edu)>

**Sent:** Friday, January 11, 2019 2:45 PM

**To:** Robin J Luteyn; Sally Thompson-Iritani; Robert D. Murnane; Audrey Baldessari; Michael J Gale; Charlotte E. Hotchkiss; Tess House; cmali

**Subject:** Re: Preparation of an R01 grant to study Valley Fever

I'm on campus and can come to the meeting room. Is there a room people are meeting in or is it all being done by TC?

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: Robin J Luteyn <[rluteyn@uw.edu](mailto:rluteyn@uw.edu)>

Date: 12/27/18 11:59 (GMT-08:00)

To: Deborah L Fuller <[fullerdh@uw.edu](mailto:fullerdh@uw.edu)>, Sally Thompson-Iritani <[sti2@uw.edu](mailto:sti2@uw.edu)>, "Robert D. Murnane" <[rmurnane@uw.edu](mailto:rmurnane@uw.edu)>, Audrey Baldessari <[aeb4@uw.edu](mailto:aeb4@uw.edu)>, Michael J Gale <[mgale@uw.edu](mailto:mgale@uw.edu)>, "Charlotte E. Hotchkiss" <[chotchki@uw.edu](mailto:chotchki@uw.edu)>, Tess House <[th81@uw.edu](mailto:th81@uw.edu)>, cmali <[cmali@uw.edu](mailto:cmali@uw.edu)>

Cc: Deb Diamond <[ddiamond@uw.edu](mailto:ddiamond@uw.edu)>, "Michael J. Mustari" <[mmustar@uw.edu](mailto:mmustar@uw.edu)>, "Jane W. Elliott" <[ellioj@uw.edu](mailto:ellioj@uw.edu)>, "Kathryn A. Guerriero" <[kag18@uw.edu](mailto:kag18@uw.edu)>, Keith Vogel <[vogelk@uw.edu](mailto:vogelk@uw.edu)>, Dean Jeffery <[daj12@uw.edu](mailto:daj12@uw.edu)>

Subject: Preparation of an R01 grant to study Valley Fever

Hello,

I sent an outlook calendar invite, but to cover my bases, here is the confirmation email with the pertinent meeting information.

Best,

Robin

## **R01 grant to study Valley Fever**

Fri, Jan 11, 2019 3:00 PM - 4:00 PM PST

**Please join my meeting from your computer, tablet or smartphone.**

<https://global.gotomeeting.com/join/786452605>

**You can also dial in using your phone.**

United States: +1 (872) 240-3412

**Access Code:** 

First GoToMeeting? Let's do a quick system check:

<https://link.gotomeeting.com/system-check>

---

To Host the Meeting click:<https://www.gotomeeting.com/>

Logon:[wanprc@uw.edu](mailto:wanprc@uw.edu) (1<sup>st</sup>) -- (alternate:[cproao@uw.edu](mailto:cproao@uw.edu) (2<sup>nd</sup>) or [prprim8@uw.edu](mailto:prprim8@uw.edu) (3rd))

Password: 

**Re: Valley Fever Soil Collection****Bridget Marie Barker** <Bridget.Barker@nau.edu>

Tue 11/19/2019 6:24 AM

**To:** cmali <cmali@uw.edu>**Cc:** Daniel Raymond Kollath - Google <drk87@nau.edu>; Tess House <th81@uw.edu>

I agree! This should be good to send on - we'll work on setting up the training and getting Dan's OCC health check completed.

Thanks again for a great visit!

Sent from my iPhone. Please excuse brevity and typos!

On Nov 19, 2019, at 06:04, cmali <cmali@uw.edu> wrote:

Dan-

This look great! Thanks for putting it together so quickly!

Please let us know what we can do to help from our end!

Keep us posted on progress.

Best,  
Carolyn

**Carolyn Malinowski, MS, DVM, CMAR, CPIA,  
DACLAM**

Supervisory Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501

<Outlook-  
j3yfc3xw.png>  
<http://sites.uw.edu/d2c>

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**From:** Daniel Kollath <drk87@nau.edu>**Sent:** Monday, November 18, 2019 5:06 PM

**To:** Bridget Marie Barker <Bridget.barker@nau.edu>; Tess House <th81@uw.edu>; cmali <cmali@uw.edu>

**Subject:** Valley Fever Soil Collection

Hello All,

It was a great meeting today and I am looking forward to working with you all in the future. I think it is going to be really awesome. Per the request of the community and Quannah Dallas I have written a brief proposal to sample at the facility. I wanted to see what you all thought before I sent it. I have attached below. Thanks so much!

--

Dan Kollath M.S.  
PhD. Student  
Pathogen and Microbiome Institute  
Northern Arizona University

**Re: Case opinions Z16358****cmali** <cmali@uw.edu>

Fri 1/4/2019 7:08 AM

**To:** Kathryn A. Guerriero <kag18@uw.edu>; Dean Jeffery <daj12@uw.edu>; Sally Thompson-Iritani <si2@uw.edu>; Charlotte E. Hotchkiss <chotchk@uw.edu>; Keith Vogel <vogelk@uw.edu>**Cc:** Tess House <th81@uw.edu>

Hi All,

After discussing with Tess, we have decided to forgo the BAL due to the potential human health hazard associated with VF. We will start empiric TX with Clavamox today and also do a TST.

THANK YOU for your advice and recommendations yesterday. It's a good thing to have so many other vets around for when I have brain lapses, like not thinking of secondary bacterial infection and just focusing on VF..... I VERY MUCH APPRECIATE your help!!!

Best,  
Carolyn

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center

Arizona Breeding Colony

PO Box 20836

Mesa, AZ 85277

Ph: 206.616.0501

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**From:** Kathryn A. Guerriero <kag18@uw.edu>**Sent:** Thursday, January 3, 2019 9:13:22 PM**To:** cmali; Dean Jeffery; Sally Thompson-Iritani; Charlotte E. Hotchkiss; Keith Vogel**Cc:** Tess House**Subject:** Re: Case opinions Z16358

Hi Carolyn,

On my drive home tonight I was thinking about this case and was wondering when the last time this animal had a TB test done. I ask because these will have similar presentation on radiographs (and of course a cough) and the VF infection, altering this animal's immune system, has the potential to allow a latent TB infection to flourish. Anyway, it might be worth do a TB test and if you do get a BAL, you may want to consider sending it for TB PCR to rule that out (zoologix will run TB PCR, but you should contact them directly to confirm that they will take a sample from an animal with VF). Another option is to collect blood for TB serology (Intuitive Biosciences in Wisconsin will run this on macaque samples and the test is highly specific for tuberculosis causing mycobacterium). TB would be lower on my list for secondary bacterial infections if this animal has been negative before, but still definitely something that I would want to rule out.

Kate

---

**From:** Kathryn A. Guerriero**Sent:** Thursday, January 3, 2019 12:23:48 PM**To:** cmali; Dean Jeffery; Sally Thompson-Iritani; Charlotte E. Hotchkiss; Keith Vogel

**Cc:** Tess House  
**Subject:** RE: Case opinions Z16358

I'm up for a discussion after rounds. Can we bring up the radiographs on the screen after rounds?

---

**From:** cmali <cmali@uw.edu>  
**Sent:** Thursday, January 3, 2019 12:15 PM  
**To:** Dean Jeffery <daj12@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; Keith Vogel <vogelk@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>  
**Cc:** Tess House <th81@uw.edu>  
**Subject:** Re: Case opinions Z16358

sounds like a plan! Thanks!

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
PO Box 20836  
Mesa, AZ 85277  
Ph: 206.616.0501

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**From:** Dean Jeffery <daj12@uw.edu>  
**Sent:** Thursday, January 3, 2019 12:30:41 PM  
**To:** Sally Thompson-Iritani; cmali; Charlotte E. Hotchkiss; Keith Vogel; Kathryn A. Guerriero  
**Cc:** Tess House  
**Subject:** RE: Case opinions Z16358

I haven't had time to look yet, but I love a good discussion. Once we've covered pertinent weekend stuff, I'll stick around.

DJ

---

**From:** Sally Thompson-Iritani [mailto:sti2@uw.edu]  
**Sent:** Thursday, January 3, 2019 11:22 AM  
**To:** cmali <cmali@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; Keith Vogel <vogelk@uw.edu>; Dean Jeffery <daj12@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>  
**Cc:** Tess House <th81@uw.edu>  
**Subject:** RE: Case opinions Z16358

Should we discuss this at the end of rounds today? That left thoracic cavity is interesting.

Sally

---

**From:** cmali <cmali@uw.edu>  
**Sent:** Thursday, January 3, 2019 9:25 AM  
**To:** Charlotte E. Hotchkiss <chotchki@uw.edu>; Keith Vogel <vogelk@uw.edu>; Dean Jeffery <daj12@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; Kathryn A. Guerriero <kag18@uw.edu>  
**Cc:** Tess House <th81@uw.edu>  
**Subject:** Case opinions Z16358

Hi All,

I would like some help with a case... ~2 yo M pigtail with indoor/outdoor access in a juvenile enclosure (weaned within last 6m). New Valley Fever Case, on TX with Fluconazole and Albuterol (for 1.5m) for cough. Moved into indoor hospital group cage when diagnosed. Cough not resolving. Repeat xrays yesterday are worse than previous ones (about a month ago). Started on pred about 5 days ago (before xrays). Heard coughing again today.

Please look at xrays, particularly the VD view.

Z:\Arizona\Vet Services\2019\Radiographs\Z16358

Plan to finish pred, continue albuterol and Fluconazole and repeat xrays 10D after pred ends .

Any thoughts or suggestions?

THANK YOU!!!

Carolyn

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian

Washington National Primate Research Center

Arizona Breeding Colony

PO Box 20836

Mesa, AZ 85277

Ph: 206.616.0501

## Preparation of an R01 grant to study Valley Fever

rluteyn@uw.edu <rluteyn@uw.edu>

on behalf of

WaNPRC.3rd Floor Campus Conference <R\_RM.WaNPRC.0001@uw.edu>

Thu 1/3/2019 12:00 PM

**To:** Deborah L Fuller <fullerdh@uw.edu>; Sally Thompson-Iritani <si2@uw.edu>; Robert D. Murnane <rmurnane@uw.edu>; Audrey Baldessari <aeb4@uw.edu>; Michael J Gale <mgale@uw.edu>; Charlotte E. Hotchkiss <chotchkiss@uw.edu>; Tess House <th81@uw.edu>; Courtney A. Miller </o=WaNPRC/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=56fe20b0bb0c4d708eb3bab7da8c6199-Courtney A. Mille>; cmali <cmali@uw.edu>; rgrant <rgrant@uw.edu>

**Cc:** Michael J. Mustari <mmustar@uw.edu>; Jane W. Elliott <ellioj@uw.edu>; Kathryn A. Gueriero <kag18@uw.edu>; Keith Vogel <vogelk@uw.edu>; Dean Jeffery <daj12@uw.edu>; Jackie V. Berhorst <jdao@uw.edu>

Here is the Link for the Valley Fever Grant: [https://grants.nih.gov/grants/guide/pa-files/PA-19-082.html#\\_Section\\_I.\\_Funding](https://grants.nih.gov/grants/guide/pa-files/PA-19-082.html#_Section_I._Funding)

## R01 grant to study Valley Fever

Fri, Jan 11, 2019 3:00 PM - 4:00 PM PST

**Please join my meeting from your computer, tablet or smartphone.**

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**Access Code:** [REDACTED]

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<https://link.gotomeeting.com/system-check>

---

**To Host the Meeting click:** <https://www.gotomeeting.com/>

**Ligon:** [wanprc@uw.edu](mailto:wanprc@uw.edu) (1<sup>st</sup>) -- (alternate: [cproao@uw.edu](mailto:cproao@uw.edu) (2<sup>nd</sup>) or [dprprim8@uw.edu](mailto:dprprim8@uw.edu) (3<sup>rd</sup>))

**Password:** [REDACTED]



## ABC Valley fever cases

Tess House <th81@uw.edu>

Tue 12/24/2019 11:47 AM

**To:** Sally Thompson-Iritani <sti2@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; cjmead2 <cjmead2@uw.edu>; aw656 <aw656@uw.edu>; cmali <cmali@uw.edu>

**Cc:** Jessica Toscano <jesst393@uw.edu>

 1 attachments (14 KB)

Valley Fever updated list 12.24.19.docx;

Hi All-

I've updated our list of current cases and broken it down to titer negative and titer positive. I've also color coded those that came up positive at the fall semi-annual exams. I'm going to go back and also color code the spring cases so we can have that number as well so that should show up in Teams later today.

This document was uploaded to Teams but I've attached it for those not yet a part of the group or if you have any difficulties with it.

Thanks!

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

## Valley Fever updated list (12/24/19)

Current census 483 animals. 44 (9%) are on fluconazole treatment and 33 (7%) have cocci titer positive status.

### **Animals on treatment and titer negative:**

- A12264
- Z17135
- Z16005
- L03132
- Z12342
- Z14027
- A12262
- A12269
- Z11338
- F08132
- R10156

### **Animals on treatment and titer positive:**

- Z19006
- Z16358
- Z16342
- Z13067
- Z13292
- Z17142
- Z17150
- Z17161
- Z16053
- Z16203
- Z16283
- Z16341
- A10229
- L01151
- L09006
- Z14331
- K06271
- K10112
- Z13082
- L06156
- L10152
- R11037
- Z14130
- R10113

- S10114
- K07291
- K11143
- L02276
- L05311
- M11051
- R09036
- K06192
- Z12028

**Cases in red were newly diagnosed Fall 2019**

**RE: Valley Fever case stats for ABC****Sally Thompson-Iritani** <sti2@uw.edu>

Tue 12/24/2019 12:37 PM

**To:** Tess House <th81@uw.edu>; Jim Murphy <murphyjm@uw.edu>**Cc:** cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; cjmead2 <cjmead2@uw.edu>; Jessica Toscano <jesst393@uw.edu>

Thank you so much Tess - this is incredibly helpful!

Sally

---

**From:** Tess House <th81@uw.edu>**Sent:** Tuesday, December 24, 2019 10:42 AM**To:** Jim Murphy <murphyjm@uw.edu>**Cc:** cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; cjmead2 <cjmead2@uw.edu>; Jessica Toscano <jesst393@uw.edu>**Subject:** Valley Fever case stats for ABC

Hi Jim,

I just checked our numbers for the NSAB update in January and they are as follows:

- 483 animals currently in Arizona
- 44 animals (9% of colony) on fluconazole treatment
- 33 of these animals (7% of colony) is currently cocci titer positive
- 12 new cases this fall during semi-annual exams. This trend follows what has been noted in human valley fever cases this year and the summer weather/monsoon pattern is suspected to play a role (very dry summer followed by a burst of intense rain at the end of the summer).

Hopefully these numbers will stay stable (except for a change in our census) by the time the NSAB meets.

Any questions, let me know!

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

**RE: Cocci in humans****Sally Thompson-Iritani** <sti2@uw.edu>

Thu 12/19/2019 4:10 PM

**To:** Tess House <th81@uw.edu>**Cc:** Charlotte E. Hotchkiss <chotchki@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>

Thank you Tess!

Sally

---

**From:** Tess House <th81@uw.edu>**Sent:** Thursday, December 19, 2019 10:46 AM**To:** Sally Thompson-Iritani <sti2@uw.edu>**Cc:** Charlotte E. Hotchkiss <chotchki@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>**Subject:** Cocci in humans

Hi Sally,

I'm not seeing much on the publication side yet for data from 2019 and it sounded from the discussions with Dr. Barker that they were still gathering data at Arizona Health Services. They are suspecting that our milder summer (not mild in terms of temperature but mild in terms of rain) this year is a contributing factor. Usually the data is something AHS will try to present on at the April Cocci Study Group meeting. The meeting in 2020 will be in Tucson so it will be very interesting to hear about the unusual cases they've had on the human side.

<https://www.kold.com/2019/09/03/experts-are-seeing-an-increase-valley-fever-cases-reported-arizona-why/>

One of the more recent publications that came out was the CDC's study on air filters but this was all data from the 2015 and 2016 seasons. This was something that Dr. Barker and her grad student discussed with Carolyn and I at ABC in addition to soil samples.

<https://www.ncbi.nlm.nih.gov/pubmed/31506673>

Tess

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

## Cocci titer results from last week

Tess House <th81@uw.edu>

Mon 12/16/2019 8:56 AM

To: cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>; cjmead2 <cjmead2@uw.edu>

Hi Team,

I checked all our cocci titer results follow ups:

Z16203 stable

Z16053 IgM is improved (now negative), IgG went up slightly

Z16342 improved

Z16068 (pulled for weight loss)-negative

L03132 (EI33) now negative (but not to one year of negative titers)

Z17161 stable

Z17142 stable

Z17150 IgM and IgG have both gone up **\*recheck again in 1 month\***

L01151 IgM and IgG have both gone up **\*recheck again in 1 month\***

L09006 improved

A10229 improved

I'll add recheck reminders in the clinical calendar for Z17150 and L01151. For both of these cases I probably wouldn't have rechecked them if just the IgG went up since they are new cases but since the IgM has gone up on both I think we should follow up on these. Wouldn't be a bad idea to check chest rads on them either-I'll leave that up to you both.

Dr. H

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

**EI33 in 162 (L03132)****Tess House <th81@uw.edu>**

Thu 12/12/2019 12:22 PM

**To:** Schante M. Hodges <shodges3@uwedu>; smintner <smintner@uwedu>; cjmead2 <cjmead2@uw.edu>; Danielle Parks <dp546@uwedu>**Cc:** cmali <cmali@uwedu>; aw656 <aw656@uw.edu>

Hi Team,

We pulled this girl today (was down for cocci recheck) to 142 because she was down 18% from her last body weight. She was slightly dehydrated and given fluids, vitamin B complex, Cerenia, and Onsior (old wounds on back and left hip) and we pulled samples for cbc/chem/cocci. Her heart and lungs sounded normal. We will start her on NS, probiotics, and meloxicam (ultrasound was negative) tomorrow and please let us know about her fecal output tomorrow morning. If it is abnormal, we can send a swab to Idexx.

Thanks!

Dr. H

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

**(No subject)**

**cjmead2 <cjmead2@uw.edu>**

Wed 12/11/2019 1:56 PM

**To:** Tess House <th81@uwedu>; cmali <cmali@uwedu>; aw656 <aw656@uw.edu>

**Cc:** Jessica Toscano <jesst393@uw.edu>; Schante M. Hodges <shodges3@uwedu>; smintner <smintner@uwedu>; Kelly L. Carbone <kellyc29@uw.edu>

**Thursday December 12th**

104: Z19020, Z19059, Z19069, and Z19052-cage group introduction

162: El33 cocci titer-sedate and GR76 BW

Nursery cage change out

B Bldg:

Male introductions

302: (fast) GL14 follow-up chem and recheck extraction sites (318AB)

302: (fast) DM05 recheck extraction sites (321AB)

302: (fast) EM08 recheck extraction sites (317AB)



**Re: RE:**

cmali <cmali@uw.edu>

Wed 12/11/2019 10:52 AM

**To:** Jessica Toscano <jesst393@uw.edu>; Tess House <th81@uw.edu>; cjmead2 <cjmead2@uw.edu>; aw656 <aw656@uw.edu>

**Cc:** Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>; Rita U Bellanca <rbell@uw.edu>  
social exemptions have been removed

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Supervisory Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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---

**From:** Jessica Toscano <jesst393@uw.edu>

**Sent:** Wednesday, December 11, 2019 10:11 AM

**To:** Tess House <th81@uw.edu>; cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>

**Cc:** Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>; Rita U Bellanca <rbell@uw.edu>

**Subject:** RE:

Hi Group,

B Bldg:

302: Z17317 intro back 311AB

302: A07104 intro back 312CD

Both animals were returned their respective groups without incident.

Thanks,

Jessica

---

**From:** Tess House <th81@uw.edu>

**Sent:** Tuesday, December 10, 2019 3:41 PM

**To:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>  
**Cc:** Jessica Toscano <jesst393@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>  
**Subject:** RE:

Great, thank you so much! I'm still learning Jess' meeting schedule/availability.

---

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Tuesday, December 10, 2019 3:23 PM  
**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>  
**Cc:** Jessica Toscano <jesst393@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>  
**Subject:** RE:

Correct, I have been coordinating with Jessica when we have moves.

---

**From:** Tess House <th81@uw.edu>  
**Sent:** Tuesday, December 10, 2019 3:05 PM  
**To:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>  
**Cc:** Jessica Toscano <jesst393@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>  
**Subject:** RE:

Yes, we are still good to do those introductions tomorrow. Can you please coordinate this with Jess?

For the 122 group, are you thinking right after treatments are done (8:30-9) or a little later? Would you like me to come down to help with it (and you can just call me when you're ready)?

Dr. H

---

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Tuesday, December 10, 2019 3:03 PM  
**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>  
**Cc:** Jessica Toscano <jesst393@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>  
**Subject:**

**Wednesday December 11th**

Are we still good to intro these tow back?

B Bldg:

302: Z17317 intro back 311AB

302: A07104 intro back 312CD

**Vet Staff: BWs 122**

122: Z17086 right hand rads and Z16203 cocci titer and chest rads

122: Z16053 and Z16342 cocci titer

**RE: this morning****Tess House** <th81@uw.edu>

Fri 12/6/2019 3:54 PM

**To:** smintner <smintner@uw.edu>; cjmead2 <cjmead2@uw.edu>; Danielle Parks <dp546@uw.edu>; cmali <cmali@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; aw656 <aw656@uw.edu>

Thanks Sherri,

104 is very stable on the whole.

The only 2 animals in 121 I think should get a follow up next week are Z17248 and Z17327. Caroline- please add this to the clinical calendar on whatever day would work best.

Z14066 will get a follow up weight on the clinical calendar in 3 weeks. She dipped down slightly.

Dr. H

---

**From:** smintner <smintner@uw.edu>**Sent:** Friday, December 6, 2019 1:40 PM**To:** cjmead2 <cjmead2@uw.edu>; Tess House <th81@uw.edu>; Danielle Parks <dp546@uw.edu>; cmali <cmali@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; aw656 <aw656@uw.edu>**Subject:** this morning

Hello

All weights for 104 and 121, case weights for 142, and Z14066 (171) have been done and entered.

Blood was drawn for cocci titers on Z17142, Z17150, and Z16161.

Also Z18178 from 104 was introduced into 121 without incident. Social exemption can be removed.

Thanks,  
Sherri

**(No subject)**

**cjmead2 <cjmead2@uw.edu>**

Thu 12/5/2019 9:41 PM

**To:** Danielle Parks <dp546@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>

**Cc:** Tess House <th81@uw.edu>; aw656 <aw656@uw.edu>; cmali <cmali@uw.edu>; Jessica Toscano <jesst393@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>

**Friday December 6th**

104: case BWs (all BWs, non-case as well)

142: case BWs

171: BWs Z14066 & Z14320 (already moved to 142 for trauma)

Vet Staff: BWs 121

121: cocci titers: Z17142, Z17150, Z16161

104: Z18178 intro into 121

B Bldg.: 302 case BWs

**Week of December 9th**

cjmead2 &lt;cjmead2@uw.edu&gt;

Thu 12/5/2019 8:46 PM

To: Kelly L. Carbone <kellyc29@uw.edu>; Jim Murphy <murphyjm@uw.edu>; cmali <cmali@uw.edu>; Tess House <th81@uw.edu>; aw656 <aw656@uw.edu>; Jessica Toscano <jesst393@uw.edu>

**Monday December 9<sup>th</sup> (DP, SH, CJM)**

104: group house if we have connecting cages at top (or move Z18043, and Z17175 is returning to group) Z19020 and Z19059 pair w/Z19069 and Z19052- (they are same size as Z18199 in 152) so they get ready for 152 since couple more will move out

142: T10118/T10174 follow-up fecal check if cleared to return to 232

212(6)/131(7) Quarterly Ultrasounds

131:

GR30/ L09006 recheck chem

Male/L09006/DJ72 cocci titers

Male/DJ72 chest rads

ATs separate 131 male into "C", dams lock inside A

Male will be sedated with dams as well

Start time 8AM (fast) groups 212/131

Items needed:

Jerry ramp, 2 squeeze cages, 4 recovery cages, single trapping run, catch boxes

Start upstairs 1<sup>st</sup> (single trapping run, 2 squeeze cages, 2 recovery cages, couple white boxes)

Downstairs 2nd (single trapping run, 2 squeeze cages, 2 recovery cages, couple white boxes)

241: separate male into "C"

**Tuesday December 10<sup>th</sup> (DP, SH, CJM)**

231(10)/241(9) Quarterly Ultrasounds

ATs separate both males outside, dams lock inside (241male hopefully separated and can put in group six temporarily)

Start time 8AM (fast) groups 231/241

231:

Recheck chem-S11069 and A10193

241: 2 old enough to wean to 121

Items needed:

Jerry ramp, 2 squeeze cages, 5 recovery cages, group six

**Wednesday December 11th (SH, SM, CJM)**

B Bldg:

302: Z17317 intro back 311AB

302: A07104 intro back 312CD

Vet Staff: BWs 122

122: Z17086 right hand rads and Z16203 cocci titer and chest rads

122: Z16053 and Z16342 cocci titer

**Thursday December 12th (SH, SM, CJM)**

162: EI33 cocci titer-sedate and GR76 BW

B Bldg: males will intro back to groups as well this day

302: (fast) GL14 follow-up chem and recheck extraction sites (318AB)

302: (fast) DM05 recheck extraction sites (321AB)

302: (fast) EM08 recheck extraction sites (317AB)

**Friday December 13th (SM, SH, DP)**

104: case BWs

142: case BWs

104: (fast) Z18043 rads w/o cast

B Bldg.: 302 case BWs



**RE: 121**

Kelly L. Carbone <kellyc29@uw.edu>

Wed 12/4/2019 2:41 PM

**To:** cjmead2 <cjmead2@uw.edu>; Tess House <th81@uw.edu>

**Cc:** cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>

Thank you it is much appreciated!!

Kelly

---

**From:** cjmead2 <cjmead2@uw.edu>

**Sent:** Wednesday, December 4, 2019 1:33 PM

**To:** Tess House <th81@uw.edu>

**Cc:** cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>

**Subject:** RE: 121

Thank you!!

---

**From:** Tess House <th81@uw.edu>

**Sent:** Wednesday, December 4, 2019 1:31 PM

**To:** cjmead2 <cjmead2@uw.edu>

**Cc:** cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>

**Subject:** RE: 121

That sounds good to Dr. M and I!

---

**From:** cjmead2 <cjmead2@uw.edu>

**Sent:** Wednesday, December 4, 2019 1:29 PM

**To:** cmali <cmali@uw.edu>; Tess House <th81@uw.edu>; aw656 <aw656@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>

**Subject:** 121

I was going to have Vet staff weigh 121 on Friday, since all three are here. This will help the ATs out, since they are short staffed and a lot to do.

Is this feasible, since three have cocci titers follow-ups.

Thanks,  
Caroline



**RE: Wed A Bldg AM Obs****cjmead2** <cjmead2@uw.edu>

Wed 12/4/2019 11:37 AM

**To:** cmali <cmali@uw.edu>**Cc:** Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>; Tess House <th81@uw.edu>

She received them

---

**From:** cmali <cmali@uw.edu>**Sent:** Wednesday, December 4, 2019 11:36 AM**To:** cjmead2 <cjmead2@uw.edu>**Cc:** Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>; Tess House <th81@uw.edu>**Subject:** Re: Wed A Bldg AM Obs

Z14331 changed to 2 tabs Metro PO BID (100mg total)

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Supervisory Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501

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---

**From:** cmali <cmali@uw.edu>**Sent:** Wednesday, December 4, 2019 8:56 AM**To:** cjmead2 <cjmead2@uw.edu>; Tess House <th81@uw.edu>; aw656 <aw656@uw.edu>; Jessica Toscano <jesst393@uw.edu>**Cc:** Danielle Parks <dp546@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>**Subject:** Re: Wed A Bldg AM Obs

Z14331: please add 0.5ml Metronidazole PO BID. Opened repeat diarrhea case

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Supervisory Veterinarian

Washington National Primate Research Center/University of Washington  
Arizona Breeding Colony  
PO Box 20836, Mesa, AZ 85277  
Ph: 206.616.0501



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---

**From:** cjmead2 <[cjmead2@uw.edu](mailto:cjmead2@uw.edu)>

**Sent:** Wednesday, December 4, 2019 7:25 AM

**To:** cmali <[cmali@uw.edu](mailto:cmali@uw.edu)>; Tess House <[th81@uw.edu](mailto:th81@uw.edu)>; aw656 <[aw656@uw.edu](mailto:aw656@uw.edu)>; Jessica Toscano <[jesst393@uw.edu](mailto:jesst393@uw.edu)>

**Cc:** Danielle Parks <[dp546@uw.edu](mailto:dp546@uw.edu)>; Schante M. Hodges <[shodges3@uw.edu](mailto:shodges3@uw.edu)>; smintner <[smintner@uw.edu](mailto:smintner@uw.edu)>

**Subject:** Wed A Bldg AM Obs

152: ATs mentioned Z17195 pointer finger wound, observed animal, it is suckling on left hand D1, making finger red (If you want to watch group Jessica today)

142:

Z14331 Day 3 fluid feces

142: T10118/T10174 day- today formed feces

121: Z17150- heard dry coughing (has a follow-up cocci titer this week)

Caroline

**Re: Valley Fever Soil Collection****Daniel Kollath** <drk87@nau.edu>

Tue 11/19/2019 3:08 PM

**To:** Tess House <th81@uw.edu>**Cc:** Bridget Marie Barker <Bridget.barker@nau.edu>; cmali <cmali@uw.edu>

Great idea I will add that!

On Tue, Nov 19, 2019 at 9:59 AM Tess House &lt;th81@uw.edu&gt; wrote:

Hi Dan,

It was so great meeting you yesterday! I really like what you've put together on this. My only thought would be if you wanted to also collect air samples and adding in that component as well. Otherwise, looks fantastic!

Best,

Tess

**From:** Daniel Kollath <drk87@nau.edu>**Sent:** Monday, November 18, 2019 5:06 PM**To:** Bridget Marie Barker <Bridget.barker@nau.edu>; Tess House <th81@uw.edu>; cmali <cmali@uw.edu>**Subject:** Valley Fever Soil Collection

Hello All,

It was a great meeting today and I am looking forward to working with you all in the future. I think it is going to be really awesome. Per the request of the community and Quannah Dallas I have written a brief proposal to sample at the facility. I wanted to see what you all thought before I sent it. I have attached below. Thanks so much!

--

Dan Kollath M.S.

PhD. Student

Pathogen and Microbiome Institute

Northern Arizona University

--

Dan Kollath M.S.  
PhD. Student  
Pathogen and Microbiome Institute  
Northern Arizona University

**RE: Z19039 Necropsy Report****Tess House** <th81@uw.edu>

Mon 12/2/2019 11:12 AM

**To:** aw656 <aw656@uw.edu>; cmali <cmali@uw.edu>

I'd just mention any findings on the cbc/chem and that the cocci titer was negative in the history portion. Otherwise looks good!

---

**From:** aw656 <aw656@uw.edu>**Sent:** Monday, December 2, 2019 10:59 AM**To:** cmali <cmali@uw.edu>; Tess House <th81@uw.edu>**Subject:** Z19039 Necropsy Report

Hey Docs,

I have attached the necropsy report for Z19039. Please let me know if there is additional information that needs to be included. Dr. M- please let me know if there is anything additional that you want included in the animal's history that you feel will benefit interpretation of the tissues. Thanks!

-A

**Z19039**

**Schante M. Hodges** <shodges3@uw.edu>

Wed 11/27/2019 1:22 PM

**To:** cmali <cmali@uwedu>; Tess House <th81@uwedu>; aw656 <aw656@uw.edu>

**Cc:** cjmead2 <cjmead2@uw.edu>; smintner <smintner@uwedu>

Hello,

Bloodwork that was done today has been transferred. The CBC is showing in panels reports, but the chemistry isn't yet. It will be by EOD. Cocci titer and fecal swab sent out as well.

Thanks,

Schante and Sherri

**Week of December 2nd****cjmead2 <cjmead2@uw.edu>**

Wed 11/27/2019 12:58 PM

**To:** Kelly L. Carbone <kellyc29@uw.edu>; Jim Murphy <murphyjm@uw.edu>; cmali <cmali@uw.edu>; Tess House <th81@uw.edu>; aw656 <aw656@uw.edu>**Monday December 2nd (SH DP CJM)**

142: T10118/T10174 flu fecal swab-mixed feces

B Bldg:

302: Z14244-check w/Vets first before return to group 317CD

317C-D- sedate for f/u pregnancy check Z14352

320C: A09109 (fast) sedate for eye exam, then can return to group if cleared by Vet (319AB)

302: Z13247 intro back to 319AB

302: Z12353- (fast) suture removal, check if cleared to return Wednesday (319AB)

302: F02420 intro into 319CD

Items needed B Bldg:

Group six (chains), jerry ramp, 2 squeeze cages, 5 white catch boxes

**Tuesday December 3rd (SH DP CJM)**

142: FL04- pending fecal and BW, clearance return to 131

142: Z14331/infant pending fecal/BW and clearance to return to 112, check with Vets first

222(10)/232(9) Quarterly Ultrasounds

ATs separate both males outside, dams lock inside

Start time 8AM (fast) groups 222/232

Items needed:

Jerry ramp, 2 squeeze cages, 5 recovery cages

**Wednesday December 4th (SH SM CJM)**

ATs: BWs 121 (subject to change w/ATs schedule)

121: cocci titers: Z17142, Z17150, Z16161

104: Z18178 cleared to intro into 121

**Thursday December 5<sup>th</sup> (SM SH CJM, Dr H off)**

142: M09202 (fast) exam/BW

111: f/u BW Z17250

152: Vet Tech BWs

104: Z17175 f/u chem intro back 152? pending fecal and BW clearance?

**Friday December 6th (SM DP SH CJM, Dr M off)**

104: case BWs (all BWs, non-case as well)

142: case BWs

171: BWs Z14066 & Z14320

B Bldg.: 302 case BWs



**RE: Z19039****Tess House** <th81@uw.edu>

Tue 11/26/2019 2:24 PM

**To:** aw656 <aw656@uw.edu>**Cc:** cmali <cmali@uw.edu>

I think for fecal swabs that go to Idexx-yes-but not any Biofires or swabs to Seattle. There may be a delay in getting our results from Idexx because of the holidays.

---

**From:** aw656 <aw656@uw.edu>**Sent:** Tuesday, November 26, 2019 2:12 PM**To:** Tess House <th81@uw.edu>**Subject:** RE: Z19039

Dr. H.- Will they ship fecal samples the day before a holiday? I am curious for future cases. Thanks!

-A

---

**From:** Tess House <th81@uw.edu>**Sent:** Tuesday, November 26, 2019 2:07 PM**To:** Danielle Parks <dp546@uw.edu>; cjmead2 <cjmead2@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>**Cc:** cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>**Subject:** RE: Z19039

Let's send out a fecal swab on her tomorrow. Thanks for the update Danielle!

---

**From:** Danielle Parks <dp546@uw.edu>**Sent:** Tuesday, November 26, 2019 2:05 PM**To:** Tess House <th81@uw.edu>; cjmead2 <cjmead2@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>**Cc:** cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>**Subject:** Re: Z19039

Fecal output in PM was fluid- only a small amount of fecal output.

Danielle

---

**From:** Tess House <th81@uw.edu>**Sent:** Tuesday, November 26, 2019 10:12 AM**To:** cjmead2 <cjmead2@uw.edu>; Danielle Parks <dp546@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>**Cc:** cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>**Subject:** Z19039

Hi Team,

We're pulling Z19039 for weight loss from 112 to 104 and will sedate for an exam tomorrow and cocci titer. I've started her on NS BID. Please empty her pan in case we want to grab a swab tomorrow morning.

I've also added Meloxicam for the dam (Z13067) 0.59 mL PO SID starting today.

Thank you!  
Dr. H

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

**FW: Reminder for 63rd Annual Coccidioidomycosis Study Group**

Tess House &lt;th81@uw.edu&gt;

Fri 11/15/2019 2:26 PM

**To:** cmali <cmali@uwedu> 1 attachments (60 KB)

54568691425-902363187-registration.pdf;

This is the meeting I went to the last two years. This is the meeting where I met Bridget Barker, the researcher and professor at NAU that is visiting on Monday.

---

**From:** Coccidioidomycosis Study Group <noreply@eventbrite.com>**Sent:** Wednesday, April 3, 2019 1:01 PM**To:** Tess House <th81@uw.edu>**Subject:** Reminder for 63rd Annual Coccidioidomycosis Study Group**eventbrite**[Find events](#) [My Tickets](#)

## 63rd Annual Coccidioidomycosis Study Group is Friday at 1:00 PM

Organized by [Coccidioidomycosis Study Group](#)

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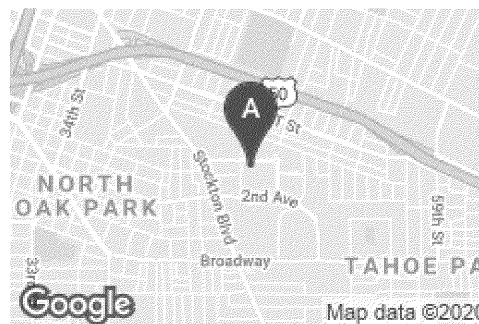
## About this event



Friday, April 5, 2019 at 1:00 PM - Saturday, April 6, 2019 at 5:00 PM (PDT)



University of California at Davis Medical Center  
UC Davis Health - Education Building  
4610 X Street  
Sacramento, CA 95817



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# 63rd Annual Coccidioidomycosis Study Group



**General Registration \$100.00**

University of California at Davis Medical Center, UC Davis Health - Education Building, 4610 X Street, Sacramento, CA 95817

Friday, April 5, 2019 at 1:00 PM - Saturday, April 6, 2019 at 5:00 PM (PDT)

PayPal Completed

Order Information

Order #902363187. Ordered by Theresa House on February 20, 2019 9:01 AM

Name

Theresa (Tess) House



9023631871126156741001

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**Dr. Bridget Barker visit****Tess House <th81@uw.edu>**

Thu 11/14/2019 2:40 PM

**To:** cmali <cmali@uwedu>; cjmead2 <cjmead2@uw.edu>; aw656 <aw656@uw.edu>

Hi Team,

Dr. Barker, a researcher at NAU in Flagstaff, will be visiting us on Monday afternoon. She will have a PhD student with her that will only have an outdoor tour of the site, Dr. Barker is cleared by occ health to go into the vivarium. I'm not sure what exact time they will arrive, but they will be here Monday. I met Dr. Barker at the Cocci Study Group meeting and she's really nice and knows a lot of people in the Cocci community.

Thanks,  
Dr. H

**(No subject)**

cjmead2 &lt;cjmead2@uw.edu&gt;

Wed 11/13/2019 12:59 PM

**To:** Schante M. Hodges <shodges3@uwedu>; smintner <smintner@uwedu>; Danielle Parks <dp546@uwedu>**Cc:** Kelly L. Carbone <kellyc29@uw.edu>; cmali <cmali@uwedu>; Tess House <th81@uwedu>; aw656 <aw656@uw.edu>**Thursday November 14th**

Ship tissue to Seattle

103: Z19006 rads &amp; follow-up cocci titer

B Bldg:

AB302: Z14298 (fast) suture removal

AB302-GL14 (male) **fast** upper K-9s extractions, Sx Rm, transport golf cart, in single trapping run (cover)

9AM contact Chris -fork lift and strap down

Move 162 (males) up in "Cs" with moves and block off "B"

**All animas moved must get BWs**

162: males moves

Males	Z14007-(171) #1		Z14055-(162) #2
-------	-----------------	--	-----------------

162C: Move over to 171 just A, B blocked off

162C	Z14320
162C	Z14066

Leave group locked inside to move (need all catch boxes and cart)

Moves:

Loc	Dam new breeder Grp 162
221	A10094
221	L06233
221	L06254
221	L10136
221	R10151
181	L03132
181	Z11327
221	Z12029
142	L10095

Nursery cage change out

**Re: J01126****cmali** <cmali@uw.edu>

Sun 11/10/2019 3:01 PM

**To:** Schante M. Hodges <shodges3@uw.edu>; Danielle Parks <dp546@uw.edu>**Cc:** aw656 <aw656@uw.edu>; cjmead2 <cjmead2@uw.edu>; smintner <smintner@uw.edu>

Added 1/2 bottle ensure PO BID to TX plan starting tomorrow

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Supervisory Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501

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**From:** smintner <smintner@uw.edu>**Sent:** Sunday, November 10, 2019 2:30 PM**To:** cmali <cmali@uw.edu>; cjmead2 <cjmead2@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; Danielle Parks <dp546@uw.edu>**Subject:** Re: J01126

Her sample is double bagged and on top of the other blood samples in the fridge.

Thanks,  
Sherri

---

**From:** cmali <cmali@uw.edu>**Sent:** Saturday, November 9, 2019 1:52 PM**To:** cjmead2 <cjmead2@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>; Danielle Parks <dp546@uw.edu>**Subject:** J01126Please submit for cocci tighter on Tuesday. Please let me know the biscuit count each day for her.  
Thank you

Sent from my iPhone





**Week of November 11th**

cjmead2 &lt;cjmead2@uw.edu&gt;

Thu 11/7/2019 2:04 PM

To: Kelly L. Carbone <kellyc29@uw.edu>; Jim Murphy <murphyjm@uw.edu>; cmali <cmali@uw.edu>; Tess House <th81@uw.edu>; aw656 <aw656@uw.edu>

**Monday November 11th (DP, SH)**

Holiday

Dr M on-call, Dr Fuller ½ day

104: Z16283 (fast) suture removal

103: Z19178 suture removal

104: Z18043- (fast) rads

**Tuesday November 12<sup>th</sup> (DP, SH, CJM)**

B Bldg:

Separate 317AB EM80 for TB exam Tuesday or Wednesday, if possible (group six)

Separate 312CD K04362 into single cage in 302

B Bldg: Caroline

Group 6's or baboon cages Kelly to check for new male breeder arrivals

302 Cage-set for K04362

Shipment 3 arrival (86)

**Wednesday November 13<sup>th</sup> (SH, SM, CJM)**

142: Z14331 follow-up fecal swab

104: Z16281 pending fecal/clearance intro back 122

104: Z17175 (fast) F/U chem

152: Z17253 (fast) F/U chem

104: Z16283 intro back to 122

B Bldg:

312CD K04362 into single cage (fast) Sx Rm

Catch box, golf cart transport

ATs-121 BWs

Items needed downstairs: Jerry ramp/2 squeeze cages, 2 white catch boxes

**Thursday November 14th (SH, SM, CJM)**

103: Z19006 rads &amp; follow-up cocci titer

B Bldg:

AB302-GL14 (male) **fast** upper K-9s extractions, Sx Rm, transport golf cart, in single trapping run (cover)

Move 162 (males) up in "Cs" with moves and block off "B"

162: males moves

Males	Z14007-(171) #1		Z14055-(162) #2
-------	-----------------	--	-----------------

162C: Move over to 171A/B

162C	Z14320
162C	Z14066

Leave group locked inside to move (need all catch boxes and cart)

Moves:

Loc	Dam new breeder Grp 162
221	A10094
221	L06233
221	L06254
221	L10136
221	R10151
181	L03132
181	Z11327
221	Z12029
142	L10095

Nursery cage change out

**Friday November 15th (SH, SM, DP in late morning, CJM-will see how week goes if I take off)**

104: case BWs

142: case BWs

212: Z14130 BW

B Bldg.: 302 case BWs

Leave group locked inside to move (need all catch boxes and cart)

Moves

Loc	Dam new breeder Grp 171
162C	Z14320
162C	Z14066
112	A10228
112	A10038
112	Z13082
112	L06215
112	M11094
112	K06271
112	K10112

**RE: Z16342****Tess House** <th81@uw.edu>

Wed 11/13/2019 12:46 PM

**To:** cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>; cjmead2 <cjmead2@uw.edu>**Cc:** Danielle Parks <dp546@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>

The social exemption has been added for this animal.

Thanks,  
Dr. H

---

**From:** Schante M. Hodges <shodges3@uw.edu>**Sent:** Tuesday, November 12, 2019 2:47 PM**To:** cmali <cmali@uw.edu>; Tess House <th81@uw.edu>; aw656 <aw656@uw.edu>**Cc:** cjmead2 <cjmead2@uw.edu>; Danielle Parks <dp546@uw.edu>; smintner <smintner@uw.edu>**Subject:** Z16342

Hello everyone,

This animal is a new valley fever case in 122. Danielle and I were discussing, and we've both had a difficult time treating her in the group. With approval from Dr. M, we are going to pull her to 104 to get her used to coming up for treatment. Once we do, I will move her in ARMS but she will need a social exemption added.

Thanks,

Schante Hodges  
Veterinary Specialist I  
WaNPRC, Arizona Breeding Colony  
4202 N Higley Rd.  
Box 20836  
Mesa, Az 85215  
[Shodges3@uw.edu](mailto:Shodges3@uw.edu)

**Week of November 11th**

cjmead2 &lt;cjmead2@uw.edu&gt;

Wed 11/6/2019 9:06 PM

To: cmali &lt;cmali@uw.edu&gt;; Tess House &lt;th81@uw.edu&gt;; aw656 &lt;aw656@uw.edu&gt;

Cc: Kelly L. Carbone &lt;kellyc29@uw.edu&gt;

**Monday November 11th (DP, SH)**

Holiday

Dr M on-call, Dr Fuller ½ day

**Tuesday November 12<sup>th</sup> (DP, SH, CJM)**

104: Z16283 (fast) suture removal, schedule for Friday 11/8? already, if done is she cleared to return to 122

103: Z19178 suture removal

104: Z18043- (fast) rads

B Bldg:

Separate 317AB EM80 for TB exam Wednesday, if possible

Separate 312CD K04362 into single cage

B Bldg:

Group 6

Cage-set for K04362

Shipment 3 arrival (86)

**Wednesday November 13<sup>th</sup> (SH, SM, CJM)**

142: Z14331 follow-up fecal swab

104: Z16281 pending fecal/clearance intro back 122

104: Z17175 (fast) F/U chem

152: Z17253 (fast) F/U chem

B Bldg:

312CD K04362 into single cage (fast) Sx

Catch box

ATs-121 BWs

Items needed downstairs: Jerry ramp/2 squeeze cages, 2 white catch boxes

**Thursday November 14th (SH, SM, CJM)**

103: Z19006 rads &amp; follow-up cocci titer

B Bldg:

AB302-GL14 (male) fast upper K-9s extractions

Move 162 (males) up in "Cs" with moves and block off "B"

Leave group locked inside to move (need all catch boxes and cart)

Moves:

Loc	Dam new breeder Grp 162
221	A10094
221	L06233
221	L06254
221	L10136

221	R10151
181	L03132
181	Z11327
221	Z12029
142	L10095

Nursery cage change out

**Friday November 15th (SH, SM, DP in late morning, CJM-will see how week goes if I take off)**

104: case BWs

142: case BWs

212: Z14130 BW

B Bldg.: 302 case BWs

Leave group locked inside to move (need all catch boxes and cart)

Moves

Loc	Dam new breeder Grp 171
162C	Z14320
162C	Z14066
112	A10228
112	A10038
112	Z13082
112	L06215
112	M11094
112	K06271
112	K10112

**Re: Cocci Results**

cmali <cmali@uw.edu>

Mon 11/4/2019 10:37 AM

To: cjmead2 <cjmead2@uw.edu>; Tess House <th81@uw.edu>; aw656 <aw656@uw.edu>

Reviewed- no changes to anyone's status.

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Supervisory Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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**From:** cjmead2 <cjmead2@uw.edu>

**Sent:** Monday, November 4, 2019 6:08 AM

**To:** cmali <cmali@uw.edu>; Tess House <th81@uw.edu>; aw656 <aw656@uw.edu>

**Subject:** Cocci Results

10/28 and 10/29 cocci downloaded into panel reports

**Re: L01151- New VF Case, GIVE 100mg Fluconazole TODAY****Danielle Parks** <dp546@uw.edu>

Fri 11/1/2019 4:03 PM

**To:** cmali <cmali@uw.edu>

I did this! Forgot to send the email before I left.

---

**From:** cmali <cmali@uw.edu>**Sent:** Friday, November 1, 2019 2:50:24 PM**To:** Danielle Parks <dp546@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>**Cc:** cjmead2 <cjmead2@uw.edu>; Tess House <th81@uw.edu>; aw656 <aw656@uw.edu>**Subject:** L01151- New VF Case, GIVE 100mg Fluconazole TODAY**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Supervisory Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501

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**From:** cjmead2 <cjmead2@uw.edu>**Sent:** Friday, November 1, 2019 2:40 PM**To:** cmali <cmali@uw.edu>; Tess House <th81@uw.edu>**Subject:** Cocci Results

L01151 IgG 1:2 and IgM neg

Z14331 IgG 1:16 IgM 1:2



## Cocci Results

**cjmead2** <cjmead2@uw.edu>

Fri 11/1/2019 2:40 PM

**To:** cmali <cmali@uwedu>; Tess House <th81@uwedu>

L01151 IgG 1:2 and IgM neg

Z14331 IgG 1:16 IgM 1:2

**RE: Cocci Results****Sally Thompson-Iritani** <sti2@uw.edu>

Mon 10/28/2019 6:30 PM

**To:** Tess House <th81@uw.edu>; cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>**Cc:** Charlotte E. Hotchkiss <chotchki@uw.edu>

Sorry to hear this - thank you for taking good care of them.

Sally

---

**From:** Tess House <th81@uw.edu>**Sent:** Monday, October 28, 2019 11:02 AM**To:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>**Cc:** Charlotte E. Hotchkiss <chotchki@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>**Subject:** RE: Cocci Results

We have three new cases from the 10/15 exams: Z16053, Z16203, Z16342. All current cases in this group are either not yet to one year of negative titers or are stable.

I have updated the Valley Fever Teams case list document to include the endpoint (Z17170) from last week and our current nursery case Z19006 as well as the three listed above.

Dr. H

---

**From:** cjmead2 <cjmead2@uw.edu>**Sent:** Monday, October 28, 2019 6:36 AM**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>**Subject:** Cocci Results

TB Exams dates cocci 10/14 and 10/15 downloaded into panel reports.  
Z19006 cocci titer IgM 1:2 and IgG 1: 32

Thanks,  
Caroline

## 122 follow up cbc/chem

Tess House <th81@uw.edu>

Mon 10/28/2019 11:19 AM

To: cjmead2 <cjmead2@uw.edu>

Cc: cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>

Hi Caroline,

Now that I have all the blood work results back on 122 with the cocci titer info, there are two animals I think we should do follow up blood work on. They are added to the clinical calendar for next month:

- Z16086 (elevated neutrophils, monocytes, eosinophils)
- Z17062 (elevated neutrophils, decreased albumin and calcium)

Thanks!

Dr. H

**Week of October 28th****cjmead2 <cjmead2@uw.edu>**

Thu 10/24/2019 1:01 PM

**To:** Kelly L. Carbone <kellyc29@uw.edu>; Jim Murphy <murphyjm@uw.edu>; cmali <cmali@uw.edu>; Tess House <th81@uw.edu>; aw656 <aw656@uw.edu>

**Monday October 28th (SM, SH, CJM)**

10 TB Exams and 4 chest tattoos- (Start time 7AM)  
162: (2) male sedations lock inside by 630am (fast)  
142: Z15079 (fast) TB Exam & rads  
142: T10118 (fast) U/S  
104: Z19020, Z19059, Z19052, Z19069, Z16358-rads, Z17053 and Z18116 (fast) TB Exam

Downstairs:

1 recovery cage 162A  
3 white catch boxes

**Tuesday October 29th (SM, SH, CJM)**

(92) New Arrivals AB Building Kelly is checking on 3 group six to have breeder males separated

11 TB Exams and 3 chest tattoos (Start time 630AM)  
ATs jump 152 out and put in 141 cages- they will recovery in 152 (fast)

Downstairs:

3 white catch boxes  
3 recovery cages 152A

**Wednesday October 30th (SM, CJM)**

142: Z14331 (fast) F/U cocci titer/ Exam and infant ear tattoo & chest tattoo  
142: Z14340 infant Exam (fast)  
142: Z16076 (fast) suture removal  
142: T10118 & T140174 clearance to return to 232?  
104: fecal swabs clearance to return to groups 116 (152), 158 (121), 196 (121)

104: Z16004 cleared to return to 122  
ATs-122 BWs

downstairs:

jerry ramp  
2 squeeze cages  
2 white catch boxes

**Thursday October 31st (SM, CJM)**

222: HK97- new birth exam  
241: GR11 New birth exam  
241: GP45 follow-up CBC

upstairs:

2 squeeze cages  
3 metal catch boxes

**Friday November 1st (SM, SH)**

221: R10113 & CV61 BWs  
112: M11094, Z14257, Z13082 Follow-up BWs  
104: Z15386 (fast) suture removal?  
104: case BWs  
142: case BWs

All catch boxes available

**FW: Cocci tests and grant application****Tess House** <th81@uw.edu>

Tue 10/22/2019 10:59 AM

**To:** cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>

I'm not sure where grant talks were with Bob (I know it's been a while but I feel like the last time there was a discussion it fell on a day I was out sick?) and Charlotte at al but just wanted to forward you this. I let Richard know I'm leaving and that the two of you will be the point people for discussions of future grants/projects/etc.

---

**From:** rgrant <rgrant@uw.edu>**Sent:** Thursday, October 17, 2019 9:28 AM**To:** Tess House <th81@uw.edu>**Subject:** Cocci tests and grant application

Hi Tess

I wanted to follow up on our previous discussion about cocci serology testing and the grants you have considered submitting. I would like our lab to be involved if you think there is a place for us, even if it's just serology of other detection methods. We could possibly generate some preliminary results by doing some PCR on tissues. We have worked out a method for t cruzi detection in tissues by PCR and I'm sure we could do the same for cocci if you thought that could add to the strength of a grant application. Of course we can also run standard or custom antibody and antigen detection too.

-Richard

**RE: Cocci Results****Tess House** <th81@uw.edu>

Sun 10/20/2019 12:35 PM

**To:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>

No new cases in the 10/8 (241) group.

Two animals (12028 and K06192) were current cases and both have had a slight reduction in their IgG levels, no change to IgM levels.

Thank you!

---

**From:** cjmead2 <cjmead2@uw.edu>**Sent:** Saturday, October 19, 2019 12:22 PM**To:** cmali <cmali@uw.edu>; Tess House <th81@uw.edu>; aw656 <aw656@uw.edu>**Subject:** Cocci Results

Semi-annuals: 10/7 and 10/8 in panel reports.

Caroline

**RE: Cocci results****Tess House** <th81@uw.edu>

Sun 10/20/2019 12:24 PM

**To:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>

Z16303, Z16068, and Z16281 are all negative.

A valley fever case was opened today on Z17170 and fluconazole started. There is a 1-1.5 cm soft, fluctuant swelling on the top of the head today.

---

**From:** cjmead2 <cjmead2@uw.edu>**Sent:** Saturday, October 19, 2019 1:29 PM**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>**Subject:** Cocci results

We got cocci titer result back on Z17170 IgM- negative and IgG 1:64

I will let Dr Fuller update about, soft lump on head.

Z16303, Z16068 and Z16281 cocci result downloaded into panel reports

Caroline



**Saturday 11/2****Schante M. Hodges <shodges3@uw.edu>**

Sat 11/2/2019 3:36 PM

**To:** cmali <cmali@uw.edu>; Tess House <th81@uw.edu>; aw656 <aw656@uw.edu>**Cc:** cjmead2 <cjmead2@uw.edu>; smintner <smintner@uw.edu>; Danielle Parks <dp546@uw.edu>**AA Building:**

Z19069 (Betsy) - Mild bloat, fecal output normal, and taking meds well.

DJ72 - Audible breathing observed, but not showing signs of labored breathing, wheezing heard after buprenorphine injection, taking meds well.

Z17150 - AT's wrote down on obs for coughing (new valley fever case in 121)

**AB Building:**

During AM obs I observed a swollen mass on upper right cheek. Notified on-call vet. Rads taken - they are on the z-drive and entered into workflow. On-call vet drained abscess and swab sent to Idexx. She is now in AB302, TX added, will continue to monitor for discharge and swelling.

That's all for today.

Schante Hodges  
Veterinary Specialist I  
WaNPRC, Arizona Breeding Colony  
4202 N Higley Rd.  
Box 20836  
Mesa, Az 85215  
Shodges3@uw.edu

**Re:**

cmali <cmali@uw.edu>

Wed 10/16/2019 7:09 AM

To: cjmead2 <cjmead2@uw.edu>; Tess House <th81@uw.edu>

follow up rads scheduled for 10/24. I will pop down this am to see if I can get a listen to his chest.

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Supervisory Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501

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**From:** cjmead2 <cjmead2@uw.edu>

**Sent:** Tuesday, October 15, 2019 5:33 PM

**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>

**Subject:**

Z19006- AT (Simone) heard her coughing all day in room. I went in there heard coughing- she told Schante and Sherri nobody mentioned it to me? I didn't seeing anything on calander unless Im missing it for follow-up rads, I know we did a cocci titer, dam was seizure cocci titer, if you want any blood repeats? Let me know. Erika just said to me heard her wheezing.

Caroline

## 131 cocci results

**cjmead2** <cjmead2@uw.edu>

Thu 10/10/2019 1:39 PM

**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>

Results are downloaded into panel reports

CJM

**RE: VF updates from 231 Semi-annual exams****Sally Thompson-Iritani** <sti2@uw.edu>

Tue 10/8/2019 5:31 PM

**To:** Tess House <th81@uw.edu>; cjmead2 <cjmead2@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>; Danielle Parks <dp546@uw.edu>**Cc:** cmali <cmali@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>

That's great news!

Sally

---

**From:** Tess House <th81@uw.edu>**Sent:** Monday, October 7, 2019 11:27 AM**To:** cjmead2 <cjmead2@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>; Danielle Parks <dp546@uw.edu>**Cc:** cmali <cmali@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>**Subject:** VF updates from 231 Semi-annual exams

Hi Team,

I just checked the cocci titer results on 231 and we have three animals that have reached a full year of negative cocci titers! We will be discontinuing oral fluconazole on ID14, ET57, and S10185 effective tomorrow.

Thank you,  
Dr. H

**RE: cocci results****Tess House** <th81@uw.edu>

Mon 10/7/2019 12:12 PM

**To:** cmali <cmali@uw.edu>

Can you add this info on the new case to the Valley fever case list document in Teams when you have a chance? Thx!

---

**From:** cmali <cmali@uw.edu>**Sent:** Monday, October 7, 2019 11:52 AM**To:** cjmead2 <cjmead2@uw.edu>; Tess House <th81@uw.edu>**Subject:** Re: cocci results

No changes to current cocci cases

Z14331: new case, start fluconazole tomorrow.

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Supervisory Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501

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**From:** cjmead2 <cjmead2@uw.edu>**Sent:** Monday, October 7, 2019 6:42 AM**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>**Subject:** cocci results

(112) 9/23 and (231) 9/24 results downloaded into panel reports

**Re: Cocci Results**

cmali <cmali@uw.edu>

Tue 10/1/2019 6:01 AM

To: cjmead2 <cjmead2@uw.edu>; Tess House <th81@uw.edu>

Checked 242- no changes to any cases, no new cases. Records updated in Workflow.

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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**From:** cjmead2 <cjmead2@uw.edu>

**Sent:** Monday, September 30, 2019 6:59 AM

**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>

**Subject:** Cocci Results

AA242 & AA222

Cocci Results downloaded into panel reports

**Re: Cocci Results**

cmali <cmali@uw.edu>

Mon 9/23/2019 6:59 AM

To: cjmead2 <cjmead2@uw.edu>; Tess House <th81@uw.edu>

Thanks! no changes to VF status for anyone

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Senior Veterinarian

Washington National Primate Research Center/University of Washington

Arizona Breeding Colony

PO Box 20836, Mesa, AZ 85277

Ph: 206.616.0501



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---

**From:** cjmead2 <cjmead2@uw.edu>

**Sent:** Sunday, September 22, 2019 8:04 AM

**To:** cmali <cmali@uw.edu>; Tess House <th81@uw.edu>

**Subject:** Cocci Results

9-9-2019 (232) aka 242 TB Exams downloaded into panel reports

CJM

**RE: AA221 9-10-2019 cocci results****Tess House** <th81@uw.edu>

Fri 9/20/2019 7:51 AM

**To:** cjmead2 <cjmead2@uw.edu>**Cc:** cmali <cmali@uw.edu>

Thank you for verifying! I've added a note in her record with the cocci titer information.

---

**From:** cjmead2 <cjmead2@uw.edu>**Sent:** Wednesday, September 18, 2019 3:55 PM**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>**Subject:** RE: AA221 9-10-2019 cocci results

R10113 and Z18217 reversed infant negative.

---

**From:** cjmead2**Sent:** Wednesday, September 18, 2019 1:59 PM**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>**Subject:** AA221 9-10-2019 cocci results

Results are downloaded into panel reports

CJM



**Re: New VF case**

smintner <smintner@uw.edu>

Sat 9/14/2019 3:15 PM

**To:** Tess House <th81@uw.edu>; Schante M. Hodges <shodges3@uw.edu>

**Cc:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>

Thanks for the update.

Got her!

Thanks, Sherri

---

**From:** Tess House <th81@uw.edu>

**Sent:** Friday, September 13, 2019 2:32 PM

**To:** smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>

**Cc:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>

**Subject:** New VF case

Hi Team-

We got the cocci titers back and L03132 (EI33) was a positive on her titer. She will be starting oral fluconazole (100 mg SID) tomorrow.

Thanks!

**RE: Cocci Titer Results****Tess House** <th81@uw.edu>

Fri 9/13/2019 2:04 PM

**To:** cjmead2 <cjmead2@uw.edu>; cmali <cmali@uw.edu>**Cc:** Charlotte E. Hotchkiss <chotchk@uw.edu>

Thank you Caroline for letting me know.

We have one new case (L03132) who was positive a few years ago. Her IgG was a low positive but she was negative this spring. I've opened a case on her and she will begin treatment again tomorrow with a recheck scheduled.

L06156, R11037, and L10152 are stable.

F08132 and Z12342 were negative but not yet to a year of negative titers, hopefully we can close their cases next spring.

Thank you!  
Dr. H

---

**From:** cjmead2 <cjmead2@uw.edu>**Sent:** Friday, September 13, 2019 10:56 AM**To:** Tess House <th81@uw.edu>; cmali <cmali@uw.edu>**Subject:** Cocci Titer Results

TB Exams on 9/3 cocci results downloaded into panel reports

CJM

## DNA Samples- Semi Annuals

**cjmead2** <cjmead2@uw.edu>

Thu 9/12/2019 2:22 PM

**To:** Danielle Parks <dp546@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; smintner <smintner@uw.edu>

**Cc:** Kelly L. Carbone <kellyc29@uw.edu>; Christopher M. Wozniak <chrisw36@uw.edu>

New type of DNA testing using SNPs. This is to replace the testing we did at UC Davis. So, moving forward with all the rest of our semi-annuals, we will be collecting these additional samples. I will need the light lavender tubes 1-2mL (2 tubes adults, 1 tube juveniles), and then once Kelly receives them she will have her check list and then they will be moved to freezer.

I added these to the bloodwork sheets for labeling. Let's make sure we have extra labels printed for Kelly for redraws and missing labels.

Juveniles under 2.5kg lean- (Example: 1 light lavender-DNA, 1 dark lavender virology and CBC- no black top and 1 serum separator chem/cocci titer)

Once we finish all the dark lavender w/black. We strictly will only be using the light landers for CBC and/or DNA

Chris DO NOT move samples in freezer for maintenance, check with me first, since I have them laying in a specific order.

Thanks,  
Let me know if any questions.

Caroline

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Tuesday, December 24, 2019 11:25 AM  
**To:** Kelly L. Carbone; Jim Murphy; Jessica Toscano; Tess House; cmali; aw656  
**Subject:** Updated Pregnancy Sheet  
**Attachments:** AZ Current Pregnancies 12-24-19.xls

Updated Pregnancy- two for follow-up dates next week to be determined. That's it till next Exams

Thanks,  
Caroline

Dam Information			Potential Sire	Pregnancy Information	
Dam (links to Breeding Summary)	Alias	Current Location (links to Move Hx)		Conception Date	Due Date
<a href="#">Z09114</a>	A9W022	<a href="#">AB317A-B</a>	M03185	20/Jun/19	December 26th to January 26th
<a href="#">A12268</a>	B090607	<a href="#">AA231A-B-C</a>	F01108	04/Jul/19	23/Dec/19
<a href="#">Z14040</a>		<a href="#">AB318C-D</a>	Z08084	18/Jul/19	06/Jan/20
<a href="#">M06139</a>	GM35	<a href="#">AA232A-B-C</a>	L02276	26/Jul/19	14/Jan/20
<a href="#">Z12072</a>		<a href="#">AA241A-B-C</a>	K04170	26/Jul/19	14/Jan/20
<a href="#">Z12182</a>	A12W011	<a href="#">AB321A-B</a>	K01241	03/Aug/19	22/Jan/20
<a href="#">Z12412</a>	09	<a href="#">AB319C-D</a>	F02420	03/Aug/19	22/Jan/20
<a href="#">Z11098</a>	A11W023	<a href="#">AB317A-B</a>	M03185	10/Aug/19	29/Jan/20
<a href="#">A03194</a>	ET57	<a href="#">AA231A-B-C</a>	F01108	11/Aug/19	30/Jan/20
<a href="#">Z11392</a>	A11W087	<a href="#">AB319C-D</a>		14/Aug/19	02/Feb/20
<a href="#">Z12353</a>	371	<a href="#">AB319A-B</a>	F02420	14/Aug/19	02/Feb/20
<a href="#">Z14244</a>	A14W026	<a href="#">AB302-I1</a>	Z12214	23/Aug/19	11/Feb/20
<a href="#">R10195</a>		<a href="#">AA241A-B-C</a>	K04170	02/Sep/19	21/Feb/20
<a href="#">Z13156</a>	D-J	<a href="#">AB319C-D</a>	F02420	09/Sep/19	28/Feb/20
<a href="#">Z14374</a>	A14W052	<a href="#">AB309A-B</a>	Z12214	10/Sep/19	29/Feb/20
<a href="#">Z12333</a>	359	<a href="#">AB318C-D</a>	Z08084	12/Sep/19	02/Mar/20
<a href="#">Z14358</a>	A14W049	<a href="#">AB309A-B</a>	Z12214	18/Sep/19	08/Mar/20
<a href="#">Z14352</a>	A14W045	<a href="#">AB302-C2</a>	Z12214	19/Sep/19	09/Mar/20
<a href="#">Z13245</a>	D-Z	<a href="#">AB319C-D</a>	F02420	22/Sep/19	12/Mar/20
<a href="#">Z13304</a>	A13W031	<a href="#">AB321A-B</a>	K01241	02/Oct/19	22/Mar/20
<a href="#">L10152</a>		<a href="#">AA181A-B-C</a>	F01108	12/Oct/19	01/Apr/20
<a href="#">L11128</a>		<a href="#">AA232A-B-C</a>	L02276	14/Oct/19	03/Apr/20
<a href="#">Z14197</a>	A14W020	<a href="#">AB320A-B</a>	Z11389	17/Oct/19	06/Apr/20
<a href="#">L11035</a>		<a href="#">AA222A-B-C</a>	K05143	21/Oct/19	10/Apr/20
<a href="#">Z12028</a>	B-E	<a href="#">AA241A-B-C</a>	K04170	22/Oct/19	11/Apr/20

<b>Comments</b>
no pregnancy Hx from NIRC
2014, 2015, 2016, 2017 and 2018-viable births
2018 viable birth
viable birth 2014, 2015, 2017 and 2018
2016 viable birth, 2017 stillborn full term and early 2018 dystocia full term fall 2018 viable birth
2018 viable birth
2018 viable birth
2017 viable birth
2018- viable birth, 6/17 FD trauma, 9/16 spontaneous death, 9/15 and 4/14 viable births-10/2019 early abort 1st trimester
viable birth 2017, non viable spontaneous death 6/2019
2018, 2019 viable births
2019 viable birth
2016 and 2017 viable births
2018 viable birth
Hx from NIRC first time pregnancy
2019 viable birth July, then 1 month old spontaneous death, 2018 viable birth
no pregnancy Hx from NIRC
2019 viable birth
viable birth 2018
Hx from NIRC first time pregnancy-CJM
2015 viable birth, 2016 early year FD 1 month old (Pathology pathogens), later 2016 and 2018 viable birth
2015, 2016, 2018 Viable births
2018 viable birth
2015 and 2016 viable birth-(2015 birth currently VF Tx), 2019 viable birth
2016 nonviable birth, 2017 viable birth, 2018 non-viable breech/dystocia full-term, 2019 stillborn-VF Tx

<u>K06231</u>	GR30	<u>AA131A-B-C</u>	A10229	03/Nov/19	23/Apr/20
---------------	------	-------------------	--------	-----------	-----------

viable births 2013, 2016, 2017,2018 and 2019



**From:** Melinda Young <biosafe@uw.edu>  
**Sent:** Monday, December 23, 2019 9:16 AM  
**To:** Geoff Lard; bfalbo1  
**Cc:** Kelly L. Carbone; Jim Murphy  
**Subject:** Occupational Health Orientation  
**Attachments:** Medical Clearance Form RR1532 Initial SHORT\_fillable.pdf;  
Zoonotic\_Diseases\_of\_NHPs\_FINAL.doc; AHA 11-2019.docx

Here are both forms for Skype appt with Becky at Employee Health. I had forgot to send the Respirator form on Friday.

They can be scanned and returned to:  
Employee Health Center ([emphlth@uw.edu](mailto:emphlth@uw.edu))

Melinda

Melinda Young  
Occupational Health and Biosafety Specialist  
Center Programs, Administration, and Operations  
206 543-8686 with voicemail  
Cell 206 696-6977  
[biosafe@uw.edu](mailto:biosafe@uw.edu)  
Hours 8:15 to 5:00 pm

*The WaNPRC is supported by grant P51 OD010425 from the NIH Office of Research Infrastructure Programs. Please help us continue to support your research by citing our grant number in publications*

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MEDICAL RECORD**



UNIVERSITY OF WASHINGTON

**RESPIRATOR MEDICAL EVALUATION  
QUESTIONNAIRE** — for disposable/half-mask/PAPR  
respirator users

1532

PLEASE PRINT — Attach additional sheets if needed.

ENVIRONMENTAL HEALTH & SAFETY

UoW 1031 short (Rev 10-09)

For help filling this out call the employee health nurse at 206-685-1026. If you have questions about respirators call the Respirator Program Administrator at 206-543-7388.\*

**Your supervisor must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your supervisor must not look at or review your answers.**

Name (Last) \_\_\_\_\_ (First) \_\_\_\_\_ (M.I.) \_\_\_\_\_ EID/SID \_\_\_\_\_ Today's Date \_\_\_\_\_

Job Title \_\_\_\_\_ Box Number \_\_\_\_\_ Dept/Shop \_\_\_\_\_

Supervisor \_\_\_\_\_ Work phone number \_\_\_\_\_ What is the best time to reach you at this number? \_\_\_\_\_

Date of Birth \_\_\_\_\_ Sex ☐ Male ☐ Female Height \_\_\_\_\_ ft. \_\_\_\_\_ in. Weight \_\_\_\_\_ ☐ Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire?

Check the type of respirator you will use (you can check more than one category)

☐ N, R, or P disposable respirator (filter-mask, non-cartridge type only) ☐ Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).

☐ Have you worn a respirator? If yes, what type(s) \_\_\_\_\_

1. ☐ Do you currently smoke tobacco, or have you smoked tobacco in the last month?

2. Have you ever had any of the following conditions?

☐ Seizures (fits) ☐ Diabetes (sugar disease) ☐ Latex allergy or allergic reactions that interfere with your breathing ☐ Claustrophobia (fear of closed-in places) ☐ Trouble smelling odors

3. Have you ever had any of the following pulmonary or lung problems?

☐ Asbestosis ☐ Emphysema ☐ Silicosis ☐ Broken ribs  
☐ Asthma ☐ Pneumonia ☐ Lung cancer ☐ Any chest injuries or surgeries  
☐ Chronic bronchitis ☐ Tuberculosis ☐ Pneumothorax (collapsed lung) ☐ Any other lung problem that you've been told about

4. Do you currently have any of the following symptoms of pulmonary or lung illness?

☐ Shortness of breath ☐ Shortness of breath when washing or dressing yourself ☐ Coughing that occurs mostly when you are lying down  
☐ Shortness of breath when walking fast on level ground or walking up a slight hill or incline ☐ Shortness of breath that interferes with your job ☐ Coughing up blood in the last month  
☐ Shortness of breath when walking with other people at an ordinary pace on level ground ☐ Coughing that produces phlegm (thick sputum) ☐ Wheezing  
☐ Have to stop for breath when walking at your own pace on level ground ☐ Coughing that wakes you early in the morning ☐ Wheezing that interferes with your job  
☐ Chest pain when you breathe deeply  
☐ Any other symptoms that you think may be related to lung problems

5. Have you ever had any of the following cardiovascular or heart problems?

☐ Heart Attack ☐ Angina ☐ Swelling in your legs or feet (not caused by walking) ☐ High blood pressure  
☐ Stroke ☐ Heart failure ☐ Heart arrhythmia (heart beating irregularly) ☐ Any other heart problem that you've been told about

6. Have you ever had any of the following cardiovascular or heart symptoms?

☐ Frequent pain or tightness in your chest ☐ Pain or tightness in your chest during physical activity ☐ Heartburn or indigestion that is not related to eating  
☐ Pain or tightness in your chest that interferes with your job ☐ In the past two years, have you noticed your heart skipping or missing a beat ☐ Any other symptoms that you think may be related to heart or circulation problems

7. Do you currently take medication for any of the following problems?

☐ Breathing or lung problems ☐ Heart trouble ☐ Blood pressure ☐ Seizures (fits)

8. If you've used a respirator, have you ever had any of the following problems?

☐ Eye irritation ☐ Skin allergies or rashes ☐ Anxiety ☐ General weakness or fatigue ☐ Any other problem that interferes with your use of a respirator

Signature \_\_\_\_\_ Date \_\_\_\_\_

Return this form to: Hall Health, Employee Health Nurse, Box 354410, Seattle, WA 98195-4410  
Write "**CONFIDENTIAL**" on the envelope

### **Zoonotic Diseases of Non-Human Primates (NHPs)**

***Macacine herpesvirus 1*** (formerly *Cercopithecine herpesvirus 1* [CHV-1], *Herpesvirus simiae*, monkey B virus)

This disease is extremely rare despite its high prevalence in the host species. Most macaques are asymptomatic carriers or display only mild oral lesions that are difficult to detect. Therefore, all macaques should be presumed to be shedding “B-virus”.

- Reservoir/source of infection to people: Macaques are the major source of infection; although other old world primates may be infected.
- Transmission: Transmission occurs via bites, scratches, splashes (any body fluid or secretion, feces) needlesticks, and other contact of mucous membranes or broken skin with infected body fluids from macaques or with wet, unfixed tissues or primary cell culture tissue material. Contaminated husbandry or research equipment can potentially spread B virus.
- Incubation period: Variable, but typically it is about 2-3 weeks.
- Disease in people: Early stage symptoms reported: unexplained febrile disease: fever, chills, nausea, vomiting, dizziness, and persistent headache. Occasionally, fluid filled vesicles can form near the skin wound. Symptoms of disease progression may include symptoms attributable to central nervous system infection, such as ascending encephalomyelitis, diplopia, seizures, and respiratory failure. Fatality rate is 46%. The fatality rate exceeds 80% when the exposure is not evaluated and treatment is not received.

**INJURIES OR MUCOUS MEMBRANE EXPOSURE REQUIRE IMMEDIATE FIRST AID!  
FOLLOW INSTRUCTIONS IN THE SCRUB KIT.**

#### ***Campylobacter***

Campylobacter is often called “campy.” It is a family of bacteria that infects the intestines. The disease is called campylobacteriosis.

- Reservoir/source of infection to people: humans, domesticated pets, farm animals and laboratory animals.
- Transmission: Fecal/oral
- Incubation period: One to seven days. Most people get better in two to five days, even without treatment. Some people can take up to ten days to get better. The bacteria are gone after two to three weeks if your illness is treated. If you do not treat your infection, the bacteria can stay in your body waste for up to three months. You can get sick again, and you can also infect other people.

- Disease in people: Mild to severe diarrhea, or bloody diarrhea, nausea and vomiting, stomach pain/cramping, fever, headache, and general malaise.

### ***Shigellosis***

*Shigella* is a significant cause of diarrhea in NHPs, and is a significant zoonotic disease that has frequently been transmitted from NHPs to man.

- Reservoir/source of infection to people: Humans are the main reservoir of disease, but infected monkeys can be a source of infection. Any NHP may harbor *Shigella* bacteria, and clinical signs may not be apparent.
- Transmission: Fecal/oral. The organism is shed from clinically ill as well as asymptomatic humans and NHP. Only minimal contact is necessary for transmission.
- Disease in people: Signs range from none to a severe diarrhea may be accompanied with blood or mucus. More commonly a mild diarrhea.

### ***Salmonella***

*S. typhimurium* & *S. enteritidis* have been associated most commonly with lab animal colony infections.

- Reservoir/source to people: Intestinal tract of NHPs
- Transmission: Fecal/oral
- Disease in people: Acute gastroenteritis with sudden onset of abdominal pain, diarrhea, nausea, and fever.

### ***Cryptosporidium***

Protozoal organism that is common in mammals, particularly younger animals.

- Reservoir/source of infection: Many mammals
- Transmission: Fecal/oral, contaminated water
- Disease in people: Self-limiting diarrhea except in immune compromised people where it can be quite severe. No treatment.

### ***Giardia***

This protozoan is found in many mammals.

- Reservoir/source: NHPs and other mammals
- Transmission of giardia: Fecal/oral, contaminated water
- Disease in people: Chronic intermittent diarrhea +/- other systemic signs such as malaise, anorexia, severe cramping and nausea/vomiting.

### ***Amebiasis***

- Reservoir and Incidence: Reported incidence of 0-31% in the feces of clinically normal rhesus monkeys and up to 30% in other NHP.
- Transmission: By ingestion of infective cysts. Laboratory animal personnel are usually infected from fecal matter transferred to the skin or clothing.
- Incubation period: Usually 2-6 weeks
- Disease in people: Most humans have few or no detectable symptoms. Mild watery diarrhea to acute fulminating bloody or mucoid dysentery with fever and chills. Disease may have periods of remission and exacerbation over months to years.

### ***Balantidiasis***

- Reservoir and Incidence: Distributed worldwide. Incidence in NHP colonies is 0 to 63%. Usually asymptomatic, but may see diarrhea.
- Transmission: Ingestion of cysts or trophozoites from infected animal or human feces. Cyst is the infectious form.
- Disease in man: Symptoms can include: ulcerative colitis, diarrhea, dysentery, nausea, vomiting, or abdominal pain. Severe cases may see blood &/or mucus in stool. Often see asymptomatic infections in humans.

### ***Tuberculosis***

Acquired from humans and then passed between NHPs. Secondary spread back to humans has been documented.

- Transmission: Primarily through the aerosol route. Exposure to dusty bedding of infected animals, coughing of infected animals, and aerosolization of the organism during sanitation procedures may also be sources of the disease in the lab environment. Contact with body fluids during necropsy may be a major mode of transmission to humans.
- Incubation period: About 2-10 weeks from exposure to skin-test positivity.
- Disease in people: Chronic cough, fatigue, fever, weight loss, and hemoptysis.

### ***Simian Retroviruses***

*Simian Retroviruses* include *Simian Foamy Virus (SFV)*, *Simian T-lymphotropic Virus (STLV)*, *Simian Type D Retrovirus (SRV)*, and *Simian Immunodeficiency Virus (SIV)*

A subclinical latent disease is most common with these retroviruses in primates although SRV and SIV may cause subclinical to fatal immunosuppressive disease. Additionally STLV can cause a rare lymphoproliferative disease or a rare T-cell lymphoma. No disease is associated with SFV infection. Transmission of these agents occurs through saliva (bites) or blood (needlesticks). In the case of SRV the virus can be transmitted by fomites. No human disease has been identified with these viruses, but some humans have developed antibodies to them, suggesting there could be replication in humans.

### ***Zika Virus***

The Zika virus is naturally transmitted by *Aedes* spp. mosquitoes or by sexual contact. Symptoms of Zika in adults are mild and limiting including fever, rash, joint pain, and conjunctivitis, however Zika can cause birth defects including microcephaly. While not commonly occurring in the US, Zika could be transmitted by blood products such as a blood transfusion. Transmission occurs via percutaneous (needlestick) or mucous membrane routes; it has not been found to be spread through inhalation of the virus. Persons with Direct contact (with agent or animals) must contact the Employee Health clinic for consultation (206-685-1026).

### **Methicillin-Resistant *Staphylococcus aureus* (MRSA)**

MRSA is a multi-drug resistant strain of *Staphylococcus aureus* that can cause severe disease in cases of immunosuppression or when there are breaks or damage to the skin. It can colonize healthy skin nasal cavities of human, primates, and many other domestic animals. MRSA skin infections in people from the bite of a MRSA-colonized primate have occurred although these are rare. MRSA can live on surfaces for an extended period of time, and can be transmitted indirectly. Therefore, it is essential to decontaminate any equipment used after working with animals that are colonized with MRSA.

### **Coccidioidomycosis (Valley Fever) and Trypanosomiasis (Chagas' disease)**

Coccidioides, a dimorphic saprophytic fungus that can cause pneumonia, dermatitis, and systemic disease in people (Valley Fever), and trypanosomes (such as *Trypanosoma cruzi*, protozoal parasites causing Chagas' disease in people), are both carried by some primates at WaNPRC. However the conditions indoors (in the vivaria) do not exist for either of these agents to infect people. Valley fever is infective only in its hyphae form that exists in the soil of dryer areas such as the southwest US. Chagas' disease is transmitted by the kissing bug, which lives across the southern United States, among other areas.

## Animal Contact Health Questionnaire

Confidential

Initial\_\_\_\_ Periodic\_\_\_\_

Name (Last, First, MI):	Employee ID number:	<input type="checkbox"/> Male <input type="checkbox"/> Female
Job title:	UW box number:	Work phone:
Department:	Supervisor/PI:	
Work location:	How many years have you worked in this position:	
Email (required):	Birthdate:	Today's date:

**All UW employees working in an animal care and use environment must complete at least one Animal Contact Health Questionnaire.** If you have not yet completed at least one AHA, you may not sign the declination below; please proceed to the next section.

**STATEMENT OF DECLINATION** *(Only those who have completed an AHA in the past may decline)*

I, \_\_\_\_\_ (print name), decline to participate in the UW animal use medical screening process. I understand that declining could lead to unforeseen medical concerns. I also understand that I can change my mind about participating by contacting an Employee Health Center nurse at 206.685.1026 or [emphlth@uw.edu](mailto:emphlth@uw.edu).

Employee signature: \_\_\_\_\_ Date: \_\_\_\_\_

**If you signed the declination above, do not complete the rest of the form.**

**I. LABORATORY ANIMAL USE** *Check all boxes that apply to your work situation.*

- ☐ I am working with live animals.
- ☐ I do husbandry (care of animals) and/or veterinary services.
- ☐ I do not work with animals, but work in an animal area.

Indicate the animals that **you work with or plan to work with:**

- ☐ Primates ☐ Birds ☐ Cats ☐ Dogs ☐ Ferrets ☐ Goats ☐ Pigs ☐ Sheep ☐ Rabbits ☐ Bats  
☐ Mice ☐ Rats ☐ Hamsters ☐ Guinea Pig ☐ Other (specify):

**II. ERGONOMICS**

- ☐ Yes I experience aches or pain when lifting, pushing, or carrying objects at work? If yes, explain:
- ☐ Yes I experience aches or pain when grasping or pinching objects at work? If yes, explain:
- ☐ Yes I experience aches or pain when reaching, bending, twisting, or kneeling at work? If yes, explain

<input type="checkbox"/> Yes <input type="checkbox"/> No	Did you inform your supervisor about the aches/pains you have at work?	
<input type="checkbox"/> Yes <input type="checkbox"/> No	Did you or your supervisor submit an OARS report?	
<b>III. ALLERGIES</b>		
<input type="checkbox"/> Yes	I have experienced shortness of breath, coughing and/or wheezing while working with or around animals.	
<input type="checkbox"/> Yes	I have experienced itchy or watery eyes and/or runny or stuffy nose while working with or around animals.	
<input type="checkbox"/> Yes	I have known allergies (animals or other). If checked, specify:	
<input type="checkbox"/> Yes	I have asthma.	
<input type="checkbox"/> Yes	My asthma symptoms are aggravated when working with animals.	
<input type="checkbox"/> N/A		
<input type="checkbox"/> Yes	I have skin problems related to work (e.g., rashes, reactions to latex).	
<input type="checkbox"/> Yes	I have regularly worn an N95 respirator or PAPR at work when working with animals.	
<b>IV. IMMUNIZATION HISTORY</b>		
<input type="checkbox"/> Yes	I have had a tetanus booster in the past 10 years. Specify the calendar year received:	
<b>V. MEDICAL HISTORY</b>		
<input type="checkbox"/> Yes	I have a chronic medical condition that requires medication.	
<input type="checkbox"/> Yes	I have you been told by my physician that I have an immune compromising medical condition.	
<input type="checkbox"/> Yes	I am taking medications that impair my immune system (e.g., steroids, immunosuppressive drugs or chemotherapy).	
<input type="checkbox"/> Yes	I have or have been told by my physician that I have a valvular or congenital heart condition.	
<input type="checkbox"/> Yes	I have a history of problems with my spleen or absence of my spleen.	
<b>VI. ADDITIONAL HEALTH CONCERNS</b>		
<input type="checkbox"/> Yes	I have health or workplace concerns (e.g. compassion fatigue) not covered by the questionnaire that may affect my occupational health, and I would like to discuss them with the Employee Health provider.	
<input type="checkbox"/> Yes	I have reproductive concerns I would like to discuss with the Employee Health provider.	
<input type="checkbox"/> Yes	I have answered the questions truthfully and to the best of my recollection.	
<b>VII. SIGNATURE</b>		<b>DATE:</b>
EHC USE ONLY - Reviewed by:		Initials
<input type="checkbox"/>	Entered into OHM	
<input type="checkbox"/>	Letter sent to employee	
Notes:		

Please return the completed form to the EH&S Employee Health Center (EHC) by either:

- Emailing as an attachment to [emphlth@uw.edu](mailto:emphlth@uw.edu)
- Faxing to 206.221.5110
- Sending to EHC in a sealed envelope marked "confidential" (UW Box 354400)



**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Wednesday, January 9, 2019 2:49 PM  
**To:** cmali; Tess House  
**Cc:** Kelly L. Carbone; Jim Murphy  
**Attachments:** Arizona Breeding Colony Spring Semi-Annual.pdf

This is what I compile each semi-annuals-waiting on DNA testing approval.

I write to each facility separately with dates of receivable shipments to ensure they are able to process on the dates scheduled.

Caroline

## Arizona Breeding Colony

Spring 2019

Date Collection	Room	Animal count	Virology	DNA	Protatek	VF Bank	cbc/chem	Rads	chest/ear tattoos	Moves
2/25/2019	212/222/231	3	3		3		3	3		
2/26/2019	241/242/131	3	3		3	1	3	3		
3/4/2019	181	16	10	3	10	1			2	
3/5/2019	232	21	17	6	17	3		1	4	
3/11/2019	212	16	13	2	13	1			1	
3/12/2019	222	12	12		12	2				
3/18/2019	231	16	12	1	12	3				
3/19/2019	241	14	9	1	9			1		
3/25/2019	242	16	15	4	15	12			3	
3/26/2019	131	11	7	1	7					
4/1/2019	221	20	17	5	17	1			2 or 3	
4/2/2019	112	11	11		11					
4/8/2019	111	22	22		22					5
4/9/2019	121	23	23		23					2
4/15/2019	122	24	24		24					7
4/16/2019	171	12	11		11	9				1
4/22/2019	162/152	162 (9) 152 (4)	162 (9) 152 (4)		162 (9) 152 (4)					
4/23/2019	104	19	17	4	17			2	2	
4/29/2019	142	10	10		10	2				

All subject to change with moves

**From:** Tess House <th81@uw.edu>  
**Sent:** Thursday, January 17, 2019 12:03 PM  
**To:** Jim Murphy; Carl L. Trivette II; Christopher M. Wozniak; cjmead2; cmali; Danielle Parks; Erika E. Evans; Geoff Lard; Jennifer A. Falbo; Jerry L. Adkins; Jim Murphy; Kelly L. Carbone; Mack Berg; owenmcc; Raymond Gonzales; Schante M. Hodges; Simone Diaz; smintner  
**Cc:** cmali  
**Subject:** Weekly Veterinary updates

Hello Team,

Here are the clinical updates for the past week: It's been a busy one!

- Z14141: had a c-section last week Thursday to prevent seizures occurring during the normal birth process. Surgery went well and the incision has been healing well. Gave birth to a healthy baby boy (Z19006, 580g). Dam introductions the next day did not go as well as we had hoped and the infant was put back in the nursery for care. Vet techs has resumed TX for seizure medications.
- Z19005 (dam Z14320) on 1/10. This infant was slated for NYU but was found dead on 1/12 in the enclosure. Histopathology is pending.
- Z14320: fostered Z19006 onto dam on 1/14. Introduction went well and infant remains on dam.
- Z19002 (dam L08020) was pulled on 1/14 into the nursery and is destined for NYU.
- PdR2: on 1/10 this animal was report for a wound on her right thigh. The wound was an upward facing triangular skin flap (~4in sides to triangle). The wound was cleaned and sutured shut. Due to the direction of the skin injuries, blood flow was disrupted to the skin flap, causing it to necrose and shrivel. The wound is being managed as an open wound, allowing for healing by second intention (allowing the body to heal on its own). The bottom half of the skin flap remains in place and is healing.
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- Dr M is out of the office from 1/18 and will be back on 1/24

Please let us know if you have any questions or concerns,

Best,

Drs H and M

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Thursday, January 17, 2019 3:05 PM  
**To:** Jim Murphy; Kelly L. Carbone; cmali; Tess House  
**Attachments:** 1-17-19 AZ Current Pregnancies.xls

Updated Pregnancy Sheet

Dam Information				
Dam (links to Breeding Summary)	Alias	Current Location (links to Move Hx)	Potential Sire	Due Date
<a href="#">Z14367</a>	J-R	<a href="#">AA112A-B-C</a>	Z13090	10/Jan/19
<a href="#">K07291</a>	HK95	<a href="#">AA242A-B-C</a>	L02276	15/Jan/19
<a href="#">Z14323</a>	I-Y	<a href="#">AA112A-B-C</a>	Z13090	19/Jan/19
<a href="#">J05199</a>	GC42	<a href="#">AA242A-B-C</a>	L02276	21/Jan/19
<a href="#">L07293</a>	HK97	<a href="#">AA222A-B-C</a>	K05143	25/Jan/19
<a href="#">Z11338</a>	Z11138	<a href="#">AA222A-B-C</a>	K05143	25/Jan/19
<a href="#">L08144</a>	ID14	<a href="#">AA181A-B-C</a>	F01108	26/Jan/19
<a href="#">J10160</a>		<a href="#">AA222A-B-C</a>	K05143	27/Jan/19
<a href="#">S10185</a>		<a href="#">AA231A-B-C</a>	F01108	27/Jan/19
<a href="#">Z14135</a>	G-M	<a href="#">AA112A-B-C</a>	Z13090	06/Feb/19
<a href="#">M01119</a>	DI36	<a href="#">AA222A-B-C</a>	K05143	08/Feb/19
<a href="#">Z15079</a>	L-J	<a href="#">AA171A-B-C</a>	Z14027	09/Feb/19
<a href="#">A12269</a>	BB890	<a href="#">AA222A-B-C</a>	K05143	11/Feb/19
<a href="#">M10190</a>		<a href="#">AA131A-B-C</a>	A10229	11/Feb/19
<a href="#">Z13067</a>	417, 46	<a href="#">AA112A-B-C</a>	Z13090	14/Feb/19
<a href="#">Z14335</a>	J-D	<a href="#">AA171A-B-C</a>	Z14027	19/Feb/19
<a href="#">Z14257</a>	H-V	<a href="#">AA112A-B-C</a>	Z13090	25/Feb/19
<a href="#">Z13292</a>	E-L	<a href="#">AA112A-B-C</a>	Z13090	22/Feb/19
<a href="#">Z14130</a>	G-I	<a href="#">AA171A-B-C</a>	Z14027	28/Feb/19
<a href="#">Z14331</a>	J-A	<a href="#">AA112A-B-C</a>	Z13090	03/Mar/19
<a href="#">Z14145</a>	G-U	<a href="#">AA171A-B-C</a>	Z14027	04/Mar/19
<a href="#">L03132</a>	EI33	<a href="#">AA181A-B-C</a>	Z14020	07/Mar/19
<a href="#">L11035</a>		<a href="#">AA222A-B-C</a>	K05143	10/Mar/19
<a href="#">S10114</a>		<a href="#">AA231A-B-C</a>	F01108	21/Mar/19
<a href="#">L06171</a>	GN90	<a href="#">AA222A-B-C</a>	K05143	24/Mar/19
<a href="#">J03371</a>	EV87	<a href="#">AA222A-B-C</a>	K05143	06/Apr/19
<a href="#">M03312</a>	ET71	<a href="#">AA142-F2</a>	L02276	20/Apr/19
<a href="#">L05311</a>	GF62	<a href="#">AA142-F1</a>	L02276	21/Apr/19
<a href="#">T01112</a>	DH46	<a href="#">AA142-C2</a>	K04170	24/Apr/19
<a href="#">K01225</a>	DL30	<a href="#">AA242A-B-C</a>	L02276	26/Apr/19
<a href="#">A12262</a>	B090211	<a href="#">AA222A-B-C</a>	K05143	27/Apr/19

Comments
first time pregnancy
2013, 2016 and 2017 viable births, valley fever Tx
first time pregnancy, VF Tx
2013 infant valley fever endpoint, 2015, 2016, 2017 viable births-valley fever Tx
2013 and 2016 viable births
2016 viable birth, Valley Fever Tx
2018 stillborn, 2017 infant couple days old FD, 2016 & 2014 viable births, valley fever Tx
2015 and 2017 viable birth, 2016 non-viable, VF Tx
2014, 2015 non-viable birth and 2016 viable birth, valley fever Tx
first time pregnancy
2013, 2014, 2015, 2017 viable births
first time pregnancy, on VF Tx
2017, 2015 and 2014 viable births-new VF case Fall 2018 on Tx
2016, 2017 viable births and 2018 C-section large infant
due Feb 9th to Feb 14th; first time pregnancy and VF Tx
first time pregnancy, VF Hx recently taken off medication
due Feb 4th to Feb 22nd; first time pregnancy
first time pregnancy and VF Tx
first time pregnancy, on VF Tx
due Feb 18th to March 3rd; first time pregnancy
first time pregnancy, VF Hx recently taken off medication
2013 non viable fetus, 2014, 2015, 2016 viable births, Hx valley fever, fall 2018 recently stopped Tx due to 1yr negative titers. 2014 birth is on valley fever Tx.
2015 and 2016 viable birth-(2015 birth currently VF Tx)
2016 and 2017 viable birth, VF Tx, enlarged liver
2014 viable birth ( 1month old rejected infant hand raise-2yrs old endpoint failure to thrive), 2015 viable birth, 2016 viable birth
2014, 2015 and 2017 viable births
2017 viable birth, 2016 viable birth (1 month poor health endpoint), 2014, 2015 viable birth, 2012 viable birth (2 mo poor health endpoint)- 6/25/18 41 days pregnant pulled for chronic wt loss, VF Tx since 2016-fetal loss not recovered 10/2018
2013, 2016 and 2017 viable births
2014 & 2017 viable birth, 2016 non viable birth
2013 viable birth, 2014 and 2016 non-viable births VF Tx since 2015
3/6 to 4/27; new valley fever case 9/2018 on Tx, 2014, 2016 viable birth

**From:** cmali <cmali@uw.edu>  
**Sent:** Thursday, January 17, 2019 5:25 PM  
**To:** Tess House; Danielle Parks; Christopher M. Wozniak; Geoff Lard; Carl L. Trivette II; cjmead2; Jim Murphy; Erika E. Evans; Mack Berg; Raymond Gonzales; Kelly L. Carbone; smintner; owenmcc; Schante M. Hodges; Jennifer A. Falbo; Simone Diaz; Jerry L. Adkins  
**Subject:** Re: Weekly Veterinary updates

Hi all,

Quick update and change of plans for 112...

after further discussion with behavior, veterinary, and husbandry personnel we will keep 112 animals inside overnight and let them have outdoor access for as long as possible during the day. This change is a balance between concerns of animals dropping babies from heights and giving the animals more space. This plan may change again depending on clinical outcomes from upcoming births and after review of necropsy records of previous infant deaths to determine risks.

Kelly will update husbandry staff regarding timing of cleaning the outdoor 112 enclosure.

Please let us know if you have any questions or concerns.

Best,  
Dr m

Sent from my iPhone

On Jan 17, 2019, at 1:03 PM, Tess House <[th81@uw.edu](mailto:th81@uw.edu)> wrote:

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flap, causing it to necrose and shrivel. The wound is being managed as an open wound, allowing for healing by second intention (allowing the body to heal on its own). The bottom half of the skin flap remains in place and is healing.

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Please let us know if you have any questions or concerns,

Best,  
Drs H and M

**From:** Tess House <th81@uw.edu>  
**Sent:** Sunday, January 20, 2019 1:51 PM  
**To:** Carl L. Trivette II; Christopher M. Wozniak; cjmead2; cmali; Danielle Parks; Erika E. Evans; Geoff Lard; Jennifer A. Falbo; Jerry L. Adkins; Jim Murphy; Kelly L. Carbone; Mack Berg; owenmcc; Raymond Gonzales; Schante M. Hodges; smintner; Simone Diaz  
**Cc:** Sally Thompson-Iritani  
**Subject:** FW: Weekly Veterinary updates

Good afternoon everyone-

I wanted to give an update on 112. Z14323 was one of the dams listed of interest to NYU for the shipment going out on February 11<sup>th</sup>. She gave birth overnight and it was noted this morning that the infant had two lacerations on the right forearm. Both dam and infant (Z19022, a female) were moved to 142 and I performed an exam on both today. There were no dislocations or fractures of the infant's right arm and she had good range of motion in the arm and is grasping well. The wounds were cleaned and antibiotics and pain relievers were given. Dam and baby are in 142, below ID14, and the infant has been observed grasping and nursing well. The infant appeared otherwise healthy on physical exam.

We have one other dam in this group that is on the NYU list, Z14367, and concerns were expressed to me this morning about her and her infant. I've discussed the situation with Caroline and Sally and we are going to move Z14367 today to 142 in the location below PDr2 to give birth in that room.

The next estimated due date for a birth in 112 is February 6<sup>th</sup> so we will allow overnight indoor/outdoor access for this group tonight. We will be evaluating the group daily and as the situation develops, it will involve ongoing discussions between husbandry, veterinary services, BMS, and Seattle. Please do not hesitate to reach out me via email or the phone if you have questions before we have our staff meeting on Wednesday. I will be in the colony tomorrow to catch up on some things since it is a normal workday for my daycare so-for those of you in tomorrow-I can talk with you then as well if you'd prefer an in-person.

Special thanks to those working today-Schante, Simone, Mack, Carl, and Erika-for your help with everything and Caroline, Kelly, and Jim for being available today to talk over the phone.

Best,  
Dr. House

---

**From:** cmali <cmali@uw.edu>  
**Sent:** Thursday, January 17, 2019 6:25 PM  
**To:** Tess House <th81@uw.edu>; Danielle Parks <dp546@uw.edu>; Christopher M. Wozniak <chrisw36@uw.edu>; Geoff Lard <glard@uw.edu>; Carl L. Trivette II <clt222@uw.edu>; cjmead2 <cjmead2@uw.edu>; Jim Murphy <murphyjm@uw.edu>; Erika E. Evans <erikae4@uw.edu>; Mack Berg <mackberg@uw.edu>; Raymond Gonzales <joann63@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>; smintner <smintner@uw.edu>; owenmcc <owenmcc@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; Jennifer A. Falbo <jfalbo1@uw.edu>; Simone Diaz <sdiaz4@uw.edu>; Jerry L. Adkins <adkinj@uw.edu>  
**Subject:** Re: Weekly Veterinary updates

Hi all,

Quick update and change of plans for 112...

after further discussion with behavior, veterinary, and husbandry personnel we will keep 112 animals inside overnight and let them have outdoor access for as long as possible during the day. This change is a balance between concerns of animals dropping babies from heights and giving the animals more space. This plan may change again depending on clinical outcomes from upcoming births and after review of necropsy records of previous infant deaths to determine risks.

Kelly will update husbandry staff regarding timing of cleaning the outdoor 112 enclosure.

Please let us know if you have any questions or concerns.

Best,  
Dr m

Sent from my iPhone

On Jan 17, 2019, at 1:03 PM, Tess House <[th81@uw.edu](mailto:th81@uw.edu)> wrote:

Hello Team,

Here are the clinical updates for the past week: It's been a busy one!

- Z14141: had a c-section last week Thursday to prevent seizures occurring during the normal birth process. Surgery went well and the incision has been healing well. Gave birth to a healthy baby boy (Z19006, 580g). Dam introductions the next day did not go as well as we had hoped and the infant was put back in the nursery for care. Vet techs has resumed TX for seizure medications.
- Z19005 (dam Z14320) on 1/10. This infant was slated for NYU but was found dead on 1/12 in the enclosure. Histopathology is pending.
- Z14320: fostered Z19006 onto dam on 1/14. Introduction went well and infant remains on dam.
- Z19002 (dam L08020) was pulled on 1/14 into the nursery and is destined for NYU.
- PdR2: on 1/10 this animal was report for a wound on her right thigh. The wound was an upward facing triangular skin flap (~4in sides to triangle). The wound was cleaned and sutured shut. Due to the direction of the skin injuries, blood flow was disrupted to the skin flap, causing it to necrose and shrivel. The wound is being managed as an open wound, allowing for healing by second intention (allowing the body to heal on its own). The bottom half of the skin flap remains in place and is healing.
- Z16358: this animal has pneumonia, likely from a secondary bacterial infection (also has VF). This animal continues to cough despite TX and repeat chest xrays are being taken tomorrow. Changes to the TX plan may occur depending on the results and further consult with Seattle.
- Z17072: pulled from 121 for weight loss. Exam is pending.

- K11143: pulled with infant from 242 on 1/15 for uterine infection. Culture is pending. She is being treated for infection.

Other updates:

- GREAT job on Wednesday with all the site preparations and tours!!! The facility looked AMAZING and many compliments were received about the facility and animals. We REALLY APPRECIATE all the effort and hard work that went into making Wednesday happen!!
- NYU infant ship date is Monday, Feb 11
- 112 enclosure will have indoor/outdoor access day and night (weather permitting) to give the animals more space as we approach the due dates for these naïve dams
- There are 2 more dams in 112 whose infants are slated for NYU. When the dams give birth, they will be pulled with the infants ASAP. All other dams in the enclosure will be allowed to give birth as normal.
- Dr M is out of the office from 1/18 and will be back on 1/24

Please let us know if you have any questions or concerns,

Best,  
Drs H and M

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Tuesday, January 22, 2019 5:08 PM  
**To:** Jim Murphy; Sally Thompson-Iritani; Kelly L. Carbone; Tess House  
**Cc:** Rita U Bellanca; smintner; Schante M. Hodges; Charlotte E. Hotchkiss; cmali; Ben L Petersen; Kelly Morrisroe  
**Subject:** Re: 112 Plans: CONFIDENTIAL DRAFT

**Sensitivity:** Confidential

AA222: Breeder Group  
Started on Feed 2/2016 ended in 4/2017- dams moved and some in this group are on tablets

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Started on Feed 3/2016 ended in 4/2017- dams moved and some in this group are on tablets  
Male in this group has been testing negative each TB exam cocci titer testing rounds, on feed he became lethargic and lost weight, so reason to take group off feed and give tablets

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Keeping groups downstairs inside/outside only to clean started with Dr Chichester 2016 to lower number of valley fever cases. Upstairs allowed inside/outside access

Then all groups pushed in for specific weather conditions (heat/cold/wind/rain)

Thanks,  
Caroline

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**From:** Jim Murphy <murphyjm@uw.edu>  
**Sent:** Tuesday, January 22, 2019 4:50:06 PM  
**To:** Sally Thompson-Iritani; Kelly L. Carbone; Tess House  
**Cc:** Rita U Bellanca; smintner; Schante M. Hodges; Charlotte E. Hotchkiss; cmali; cjmead2; Ben L Petersen; Kelly Morrisroe  
**Subject:** RE: 112 Plans: CONFIDENTIAL DRAFT

Typo! That should be **1/7/2016**.  
Jim

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**From:** Jim Murphy  
**Sent:** Tuesday, January 22, 2019 4:22 PM  
**To:** 'Sally Thompson-Iritani' <sti2@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>; Tess House <th81@uw.edu>  
**Cc:** Rita U Bellanca <rbel@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; Charlotte E. Hotchkiss

<chotchki@uw.edu>; cmali <cmali@uw.edu>; cjmead2 <cjmead2@uw.edu>; Ben L Petersen <redeye@uw.edu>; Kelly Morrisroe <morrisro@uw.edu>

**Subject:** RE: 112 Plans: CONFIDENTIAL DRAFT

**Sensitivity:** Confidential

Just responding to the question: Can someone see when we started ordering the fluconazole feed?

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As far as I can remember, we always brought groups with expecting mothers (within about two weeks of delivery) in at night if the weather was going to be cold or questionable. At some point early on, we also started bringing them in close to their due date regardless of weather. I'm sure there were exceptions when we were concerned about group stability and being locked into relatively close quarters.

Jim

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**From:** Sally Thompson-Iritani <sti2@uw.edu>

**Sent:** Thursday, January 17, 2019 9:02 PM

**To:** Kelly L. Carbone <kellyc29@uw.edu>; Tess House <th81@uw.edu>

**Cc:** Jim Murphy <murphyjm@uw.edu>; Rita U Bellanca <rbell@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>; cmali <cmali@uw.edu>; cjmead2 <cjmead2@uw.edu>; Ben L Petersen <redeye@uw.edu>; Kelly Morrisroe <morrisro@uw.edu>

**Subject:** RE: 112 Plans: CONFIDENTIAL DRAFT

**Sensitivity:** Confidential

Hi Everyone - *(this message is marked confidential due to the nature of the discussion -if others need to be included then please let me know).*

I did a quick review of the data and I do think that Charlotte was correct in saying that we have not done a good job of communicating information back to ABC on necropsy findings. *{Stillbirths are verified on histology if the lungs are not inflated then the fetus did not take a breath.}*

Information on stillbirths:

7 stillbirths 2013

2 stillbirths 2014

7 stillbirths 2015

16 stillbirths 2016

4 stillbirths 2017

4 stillbirths 2018

Based on the mortality due to trauma listed below there were 3 in 2013, 2016, 2017 each and one in 2018 {and our recent one in 2019}.

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Z13092	6/26/13	ABC Building A	AA122C	Spontaneous death, clinical	Breeding	Trauma, also had presumptive Shigella
Z13094	7/4/13	ABC Building A	AA122A-B-C	Spontaneous death, clinical	Breeding	found dead, mother was ill and later died on 6 July 2013. No necrpsy done.
Z15327	5/2/16	ABC Building A	AA131A-B-C	Spontaneous death, clinical	Breeding	Trauma
Z16265	8/22/16	ABC Building A		Spontaneous, clinical	Breeding	Neonatal death - open
Z16271	9/5/16	ABC Building A		Spontaneous, clinical	Breeding	Trauma
Z17141	6/15/2017	ABC Building A		Spontaneous death, clinical	Breeding	Trauma
Z17163	7/27/2017	ABC Building A		Spontaneous death, clinical	Breeding	Trauma
Z17185	8/7/2017	ABC Building A		Spontaneous death, clinical	Breeding	Trauma
Z18198	10/30/2018	ABC Building A	AA241A-B-C	Spontaneous death, clinical	Breeding	Trauma

I do not remember exactly when we started keeping the animals inside for the majority of the time - my memory says it was 2016. Can someone see when we started ordering the fluconazole feed? Interestingly there were no traumas reported in 2014 and 2015.

So - I don't know if this helps us with determining whether 24-hr outdoor access would be better than 8-hr outdoor access. I don't know if we have a correlation between outdoor access and trauma though. Some of these were in the animals on the upper level that always have outdoor access if I understand things correctly.

Thank you everyone - I appreciated our discussion today and I know that we are all trying to think about what would be best for the animals well-

being. I am very grateful to have all of you thinking about this and brainstorming the best path forward.

Sally

---

**From:** Kelly L. Carbone <kellyc29@uw.edu>

**Sent:** Thursday, January 17, 2019 12:47 PM

**To:** Tess House <th81@uw.edu>

**Cc:** Jim Murphy <murphyjm@uw.edu>; Rita U Bellanca <rbell@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; Charlotte E. Hotchkiss <chotchkki@uw.edu>; cmali <cmali@uw.edu>; cjmead2 <cjmead2@uw.edu>

**Subject:** RE: 112 Plans

Dr House,

Not sure what you are asking for examples of? If you are talking about babies dropped from up high I don't have specific examples. From the beginning we had found deceased babies outside and that is when we started pushing in the groups that have babies about ready to be born. It seems like once we started pushing the groups in we have had less incidences of deaths. I have no numbers to prove this it just what I have observed during my tenure here. I'm not sure how this information is recorded in their records but I don't have specific numbers of deceased babies or who their dam was.

Kelly

---

**From:** Tess House [mailto:th81@uw.edu]

**Sent:** Thursday, January 17, 2019 1:36 PM

**To:** Kelly L. Carbone <kellyc29@uw.edu>; cjmead2 <cjmead2@uw.edu>

**Cc:** Jim Murphy <murphyjm@uw.edu>; Rita U Bellanca <rbell@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; Charlotte E. Hotchkiss <chotchkki@uw.edu>; cmali <cmali@uw.edu>

**Subject:** RE: 112 Plans

Hi Kelly,

Thank you for your message, we understand and appreciate your concerns. Can you provide us with any specific examples of this? Just want more history on this.

Thank you,  
Dr. House

---

**From:** Kelly L. Carbone <kellyc29@uw.edu>

**Sent:** Thursday, January 17, 2019 1:30 PM

**To:** cmali <cmali@uw.edu>; cjmead2 <cjmead2@uw.edu>

**Cc:** Jim Murphy <murphyjm@uw.edu>; Tess House <th81@uw.edu>; Rita U Bellanca <rbell@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; Charlotte E. Hotchkiss <chotchkki@uw.edu>

**Subject:** RE: 112 Plans

Dear All,

I just want to voice my concerns about leaving the 112 group outside at night. This group is comprised of all first time mom's and I worry that if they have their babies outside there is a higher risk of them dropping their babies from a high distance. It is standard practice for us to push even the experienced mom's in at night when it gets close to their due date to help prevent babies from being dropped from high places. I can't speak for the other AT's but I believe several of them also have the same concern.

Thank you for your time,

Kelly Carbone  
AZ Animal Technician Supervisor

---

**From:** cmali [mailto:cmali@uw.edu]

**Sent:** Thursday, January 17, 2019 11:35 AM

**To:** cjmead2 <cjmead2@uw.edu>

**Cc:** Kelly L. Carbone <kellyc29@uw.edu>; Jim Murphy <murphyjm@uw.edu>; Tess House <th81@uw.edu>; Rita U Bellanca <rbell@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; Charlotte E. Hotchkiss <chotchkki@uw.edu>

**Subject:** Re: 112 Plans

Hi Caroline,

Thanks for bringing this to our attention! Dr H and I have discussed this with Rita, as well as Drs Hotchkiss and Iritani to see how we should handle this specific case.

Consensus was that we should allow animals in 112 to have indoor/outdoor access at night (weather permitting).

From a clinical standpoint, given the recent occurrences in this enclosure, we feel the benefits of additional space outweighs the risks of falls/drops in this case.

Thanks,  
Dr M

Sent from my iPhone

On Jan 17, 2019, at 8:22 AM, cjmead2 <[cjmead2@uw.edu](mailto:cjmead2@uw.edu)> wrote:

The other discussion, we still push them in at end of day overnight, due to new births soon-since high outside enclosure and naive dams? But still immediately give outside access first thing. We do this for the upstairs breeding groups.

---

**From:** cmali <[cmali@uw.edu](mailto:cmali@uw.edu)>

**Sent:** Thursday, January 17, 2019 8:15:10 AM

**To:** cjmead2; Kelly L. Carbone; Jim Murphy

**Cc:** Tess House; Rita U Bellanca; Sally Thompson-Iritani; smintner; Schante M. Hodges; Charlotte E. Hotchkiss

**Subject:** 112 Plans

Hello Team,

Here are the plans going forward for 112:

- when the babies slated for NYU are born, they will be pulled ASAP with the dams, infants to be separated from dams at 3 days of age.

- please make sure that animals have indoor/outdoor access. They should not be locked inside unless cleaning is happening outside or weather is noncooperative

- all other infants born into the enclosure are to remain there for the time being and we will see how it goes

Please let me know if you have any questions or concerns.

Best,  
Dr M

Sent from my iPhone



**From:** Sally Thompson-Iritani <sti2@uw.edu>  
**Sent:** Wednesday, January 23, 2019 9:02 PM  
**To:** cjmead2; Jim Murphy; Kelly L. Carbone; Tess House  
**Cc:** Rita U Bellanca; smintner; Schante M. Hodges; Charlotte E. Hotchkiss; cmali; Ben L Petersen; Kelly Morrisroe  
**Subject:** RE: 112 Plans: CONFIDENTIAL DRAFT

**Sensitivity:** Confidential

Thank you so much Caroline - this is very helpful information and appreciate your thoroughness with this information.

Robin is going to schedule a time for us to have a follow-up phone call.

Talk to you all soon -

Sally

---

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Tuesday, January 22, 2019 5:08 PM  
**To:** Jim Murphy <murphyjm@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>; Tess House <th81@uw.edu>  
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**Subject:** Re: 112 Plans: CONFIDENTIAL DRAFT  
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**Subject:** RE: 112 Plans

Dear All,

I just want to voice my concerns about leaving the 112 group outside at night. This group is comprised of all first time mom's and I worry that if they have their babies outside there is a higher risk of them dropping their babies from a high distance. It is standard practice for us to push even the experienced mom's in at night when it gets close to their due date to help prevent babies from being dropped from high places. I can't speak for the other AT's but I believe several of them also have the same concern.

Thank you for your time,

Kelly Carbone  
AZ Animal Technician Supervisor

---

**From:** cmali [mailto:cmali@uw.edu]  
**Sent:** Thursday, January 17, 2019 11:35 AM  
**To:** cjmead2 <cjmead2@uw.edu>  
**Cc:** Kelly L. Carbone <kellyc29@uw.edu>; Jim Murphy <murphyjm@uw.edu>; Tess House <th81@uw.edu>; Rita U Bellanca <rbell@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; smintner <smintner@uw.edu>; Schante M. Hodges <shodges3@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>  
**Subject:** Re: 112 Plans

Hi Caroline,

Thanks for bringing this to our attention! Dr H and I have discussed this with Rita, as well as Drs Hotchkiss and Iritani to see how we should handle this specific case.

Consensus was that we should allow animals in 112 to have indoor/outdoor access at night (weather permitting).

From a clinical standpoint, given the recent occurrences in this enclosure, we feel the benefits of additional space outweighs the risks of falls/drops in this case.

Thanks,  
Dr M

Sent from my iPhone

On Jan 17, 2019, at 8:22 AM, cjmead2 <cjmead2@uw.edu> wrote:

The other discussion, we still push them in at end of day overnight, due to new births soon-since high outside enclosure and naive dams? But still immediately give outside access first thing. We do this for the upstairs breeding groups.

---

**From:** cmali <cmali@uw.edu>  
**Sent:** Thursday, January 17, 2019 8:15:10 AM  
**To:** cjmead2; Kelly L. Carbone; Jim Murphy  
**Cc:** Tess House; Rita U Bellanca; Sally Thompson-Iritani; smintner; Schante M. Hodges; Charlotte E. Hotchkiss  
**Subject:** 112 Plans

Hello Team,

Here are the plans going forward for 112:

- when the babies slated for NYU are born, they will be pulled ASAP with the dams, infants to be separated from dams at 3 days of age.
- please make sure that animals have indoor/outdoor access. They should not be locked inside unless cleaning is happening outside or weather is noncooperative
- all other infants born into the enclosure are to remain there for the time being and we will see how it goes

Please let me know if you have any questions or concerns.

Best,  
Dr M

Sent from my iPhone

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Thursday, January 31, 2019 2:51 PM  
**To:** Jim Murphy; Kelly L. Carbone; Tess House; cmali  
**Subject:** Week of February 4th 2019

Sunday: ATs (separate 241 male into C for sedation Monday)

**Monday February 4th**

241 (CAN NOT have any food in enclosure for sedation)  
241: male K-9 removal (male to recover in group six in bay)

Upstairs:

1- group six  
1- single trapping run

111: Z17184 BW

**Tuesday February 5th**

112: Z13090: follow-up fecal culture  
104: Z17072- follow-up fecal culture  
142: Z13319- follow-up fecal culture  
142: Z13337- F/U US, cocci titer and chest rads (new VF)  
222: Z11338 & J10160 new infant Exam  
231: S10185 new infant exam  
171: Z14340 BW intro into 171A

Upstairs:

1- 2 squeeze cages  
1- 3 metal catch boxes

**Wednesday February 6th**

142: M09202-BW

ATs: 104/111

**Thursday February 7th**

152: Z14134 BW  
112: Z13067 new birth exam and if any more born  
Downstairs:  
1- 1 squeeze cages  
1- 1 metal catch box

**Friday February 8th**

103: (4) shipment exams

104: case BWs

142: case BWs

171: Z14340 BW

181: Z12342 infant follow-up BW

**From:** cmali <cmali@uw.edu>  
**Sent:** Tuesday, February 12, 2019 10:13 AM  
**To:** Tess House; Jim Murphy; cjmead2; Kelly L. Carbone  
**Cc:** Sally Thompson-Iritani; Charlotte E. Hotchkiss  
**Subject:** AZ VF Distribution  
**Attachments:** Cocci.xls

Hi Team,

Here is the data that I pulled together for 2018 VF cases. Please see the attached document and tabs across the bottom.

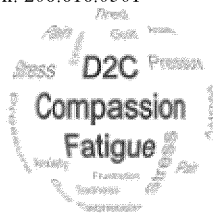
The difference between new VF cases in the upstairs and downstairs enclosures looks like a big difference on the chart but in reality it is only a difference of 2 animals...

I don't know how useful this data is without doing statistics to see how significant the differences are but here it is.

Best,  
Dr M

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian  
Washington National Primate Research Center/University of Washington  
Arizona Breeding Colony  
PO Box 20836, Mesa, AZ 85277  
Ph: 206.616.0501



*Dare 2 Care...* | explore UW's Compassion Fatigue Program

Animal	Sx	Result Date	Test Description
A03194	F	3/20/2018	IgG Titer Result,IgG Titer Value
A12255	F	1/4/2018	IgG Titer Result,IgG Titer Value
A12255	F	2/13/2018	IgG Titer Result,IgG Titer Value
A12262	F	9/24/2018	IgG Titer Result,IgG Titer Value
A12262	F	11/6/2018	IgG Titer Result,IgG Titer Value
A12264	F	3/27/2018	IgG Titer Result,IgG Titer Value
A12269	F	9/24/2018	IgG Titer Result,IgG Titer Value
F08047	F	2/13/2018	IgG Titer Result
F08047	F	2/13/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
F08047	F	4/30/2018	IgG Titer Result,IgG Titer Value
F08132	F	9/10/2018	IgG Titer Result,IgG Titer Value
K06192	F	10/1/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
K06192	F	11/13/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
K06192	F	12/11/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
K06271	F	4/2/2018	IgG Titer Result,IgG Titer Value
K06271	F	6/18/2018	IgG Titer Result,IgG Titer Value
K06271	F	9/25/2018	IgG Titer Result,IgG Titer Value
K06271	F	12/26/2018	IgG Titer Result,IgG Titer Value
K07291	F	4/9/2018	IgG Titer Result,IgG Titer Value
K10112	F	10/2/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
K10112	F	11/15/2018	IgG Titer Result,IgG Titer Value
K10112	F	12/26/2018	IgG Titer Result,IgG Titer Value
K11143	F	4/9/2018	IgG Titer Result,IgG Titer Value
K11143	F	10/8/2018	IgG Titer Result,IgG Titer Value
L02276	M	3/2/2018	IgG Titer Result,IgG Titer Value
L02276	M	8/28/2018	IgG Titer Result,IgG Titer Value
L06156	F	3/13/2018	IgG Titer Result,IgG Titer Value
L06156	F	9/10/2018	IgG Titer Result,IgG Titer Value
L10152	F	3/12/2018	IgG Titer Result,IgG Titer Value
L10152	F	9/10/2018	IgG Titer Result,IgG Titer Value
M10123	F	2/13/2018	IgG Titer Result,IgG Titer Value
M10123	F	5/9/2018	IgG Titer Result,IgG Titer Value
M10123	F	8/14/2018	IgG Titer Result,IgG Titer Value
M10123	F	12/17/2018	IgG Titer Result,IgG Titer Value
M11051	F	4/9/2018	IgG Titer Result,IgG Titer Value
M11051	F	10/8/2018	IgG Titer Result,IgG Titer Value
R09036	F	10/8/2018	IgG Titer Result,IgG Titer Value
R10113	F	3/26/2018	IgG Titer Result,IgG Titer Value
R10113	F	10/9/2018	IgG Titer Result,IgG Titer Value
R10151	F	3/26/2018	IgG Titer Result,IgG Titer Value
R10156	F	3/27/2018	IgG Titer Value
R10156	F	5/22/2018	IgG Titer Result,IgG Titer Value
R10156	F	7/30/2018	IgG Titer Value



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S10114	F	9/25/2018	IgG Titer Result,IgG Titer Value
S10185	F	3/13/2018	IgG Titer Result,IgG Titer Value
T06226	F	3/13/2018	IgG Titer Result,IgG Titer Value
T11135	F	4/9/2018	IgG Titer Result,IgG Titer Value
T11135	F	9/7/2018	IgG Titer Result,IgG Titer Value
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Z11338	F	9/24/2018	IgG Titer Result,IgG Titer Value
Z12028	F	10/1/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
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Z12028	F	12/11/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z12342	F	3/12/2018	IgG Titer Result,IgG Titer Value
Z12342	F	9/10/2018	IgG Titer Result,IgG Titer Value
Z13022	F	2/13/2018	IgG Titer Result
Z13067	F	4/16/2018	IgG Titer Result,IgG Titer Value
Z13067	F	5/23/2018	IgG Titer Result,IgG Titer Value
Z13067	F	10/16/2018	IgG Titer Result,IgG Titer Value
Z13082	F	3/20/2018	IgG Titer Result,IgG Titer Value
Z13082	F	9/11/2018	IgG Titer Result,IgG Titer Value
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Z13093	M	12/17/2018	IgG Titer Result,IgG Titer Value
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Z14001	F	4/16/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
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Z14001	F	10/29/2018	IgG Titer Result,IgG Titer Value
Z14027	M	10/22/2018	IgG Titer Result,IgG Titer Value
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Z14130	F	4/16/2018	IgG Titer Result,IgG Titer Value
Z14130	F	6/4/2018	IgG Titer Result,IgG Titer Value
Z14130	F	10/22/2018	IgG Titer Result,IgG Titer Value
Z14141	F	4/16/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z14141	F	5/23/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z14141	F	7/30/2018	IgG Titer Result,IgG Titer Value

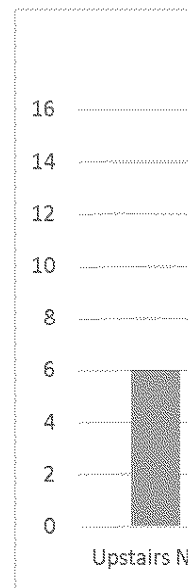
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Z14323	F	10/16/2018	IgG Titer Result,IgG Titer Value
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Z14333	M	4/17/2018	IgG Titer Result,IgG Titer Value
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Z16005	F	12/5/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z16027	F	1/8/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z16341	F	10/15/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z16341	F	11/26/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
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Z16358	M	11/26/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
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Z17135	F	11/26/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
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Animal	Location
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Z16341*	111
Z16358*	111
Z13067	112
Z13292	112
Z14141*	112
Z13337**	112
Z14323**	112
Z16005	122
Z14333	162
Z14001	171
Z14027	171
Z14130	171
F08132	181
L06156	181
L10152	181
Z12342	181
A12264	212
R10156	212
R10113	221
R10151	221
A12262	222
A12269	222
Z11338	222
S10114	231
S10185	231
A03194	232
K06271	232
K10112	232
Z13082	232
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M11051	242
R09036	242
R11037	242
K11143**	242

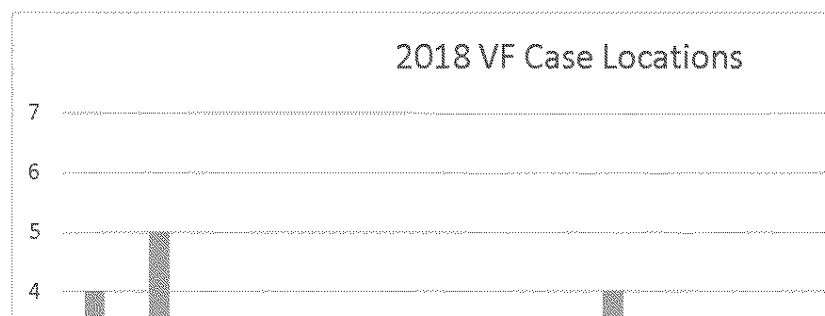
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Upstairs Old	15
Downstairs New	8
Downstairs Old	2
Annex New	1
Annex Old	7



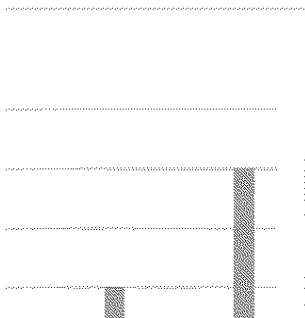
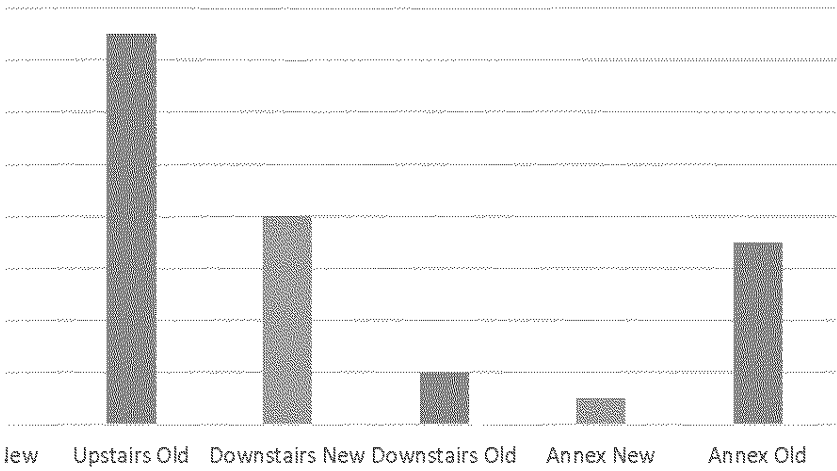
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\*\*=142

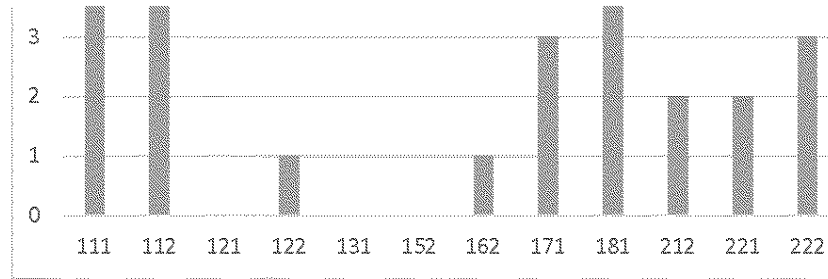
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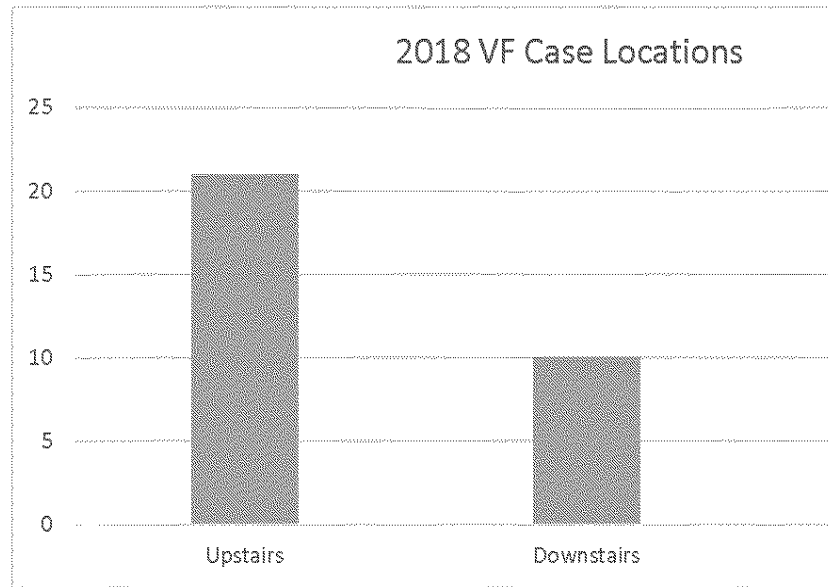
2018 VF Case Locations



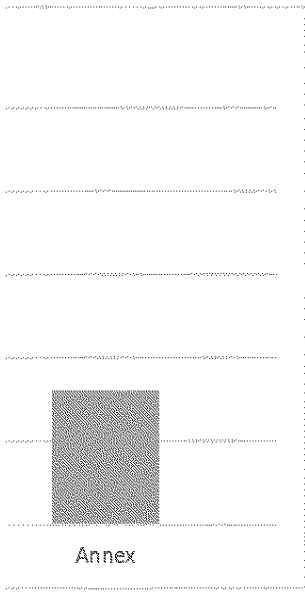
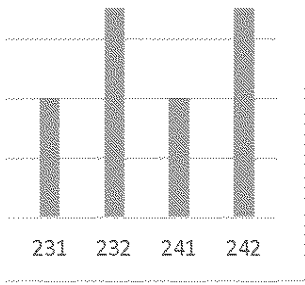
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222	3
231	2
232	4
241	2
242	6



Upstairs	21
Downstairs	10
Annex	8







F08047	Seattle
M10123	Seattle
Z07023	Seattle
Z13022	Seattle
Z13093	Seattle
Z14251	Seattle

T06226	Euth
T11135	Euth
Z16027	EUTH

**From:** Charlotte E. Hotchkiss <chotchki@uw.edu>  
**Sent:** Wednesday, February 13, 2019 9:33 AM  
**To:** cmali; Tess House; Jim Murphy; cjmead2; Kelly L. Carbone  
**Cc:** Sally Thompson-Iritani  
**Subject:** RE: AZ VF Distribution

It looks like there isn't much difference in new cases by location, but there was a big difference in old cases, with a lot more upstairs. Is that because there are more breeding groups with older animals upstairs while there are more juveniles downstairs?

Looking at this, it seems there's no difference in the incidence of new cases between upstairs and downstairs. This could either be because location and amount of outdoor access don't make a difference, or because the limited outdoor access downstairs offsets the higher risk of being lower. I don't know if there's any way to tell which of those is more accurate.

Charlotte

---

**From:** cmali <cmali@uw.edu>  
**Sent:** Tuesday, February 12, 2019 10:13 AM  
**To:** Tess House <th81@uw.edu>; Jim Murphy <murphyjm@uw.edu>; cjmead2 <cjmead2@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>  
**Cc:** Sally Thompson-Iritani <sti2@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>  
**Subject:** AZ VF Distribution

Hi Team,

Here is the data that I pulled together for 2018 VF cases. Please see the attached document and tabs across the bottom.

The difference between new VF cases in the upstairs and downstairs enclosures looks like a big difference on the chart but in reality it is only a difference of 2 animals...

I don't know how useful this data is without doing statistics to see how significant the differences are but here it is.

Best,  
Dr M

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian  
Washington National Primate Research Center/University of Washington  
Arizona Breeding Colony  
PO Box 20836, Mesa, AZ 85277  
Ph: 206.616.0501



*Dare 2 Care...* | explore UW's Compassion Fatigue Program

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Thursday, February 14, 2019 6:15 AM  
**To:** Jim Murphy; Kelly L. Carbone; Tess House; cmali  
**Attachments:** 2-12-19 AZ Current Pregnancies.xls

Updated Pregnancy Sheet

Dam Information				
Dam (links to Breeding Summary)	Alias	Current Location (links to Move Hx)	Potential Sire	Due Date
<a href="#">M01119</a>	DI36	<a href="#">AA222A-B-C</a>	K05143	08/Feb/19
<a href="#">Z15079</a>	L-J	<a href="#">AA171A-B-C</a>	Z14027	09/Feb/19
<a href="#">A12269</a>	BB890	<a href="#">AA222A-B-C</a>	K05143	11/Feb/19
<a href="#">M10190</a>		<a href="#">AA131A-B-C</a>	A10229	11/Feb/19
<a href="#">Z14335</a>	J-D	<a href="#">AA171A-B-C</a>	Z14027	19/Feb/19
<a href="#">Z14257</a>	H-V	<a href="#">AA112A-B-C</a>	Z13090	25/Feb/19
<a href="#">Z13292</a>	E-L	<a href="#">AA112A-B-C</a>	Z13090	22/Feb/19
<a href="#">Z14130</a>	G-I	<a href="#">AA171A-B-C</a>	Z14027	28/Feb/19
<a href="#">Z14331</a>	J-A	<a href="#">AA112A-B-C</a>	Z13090	03/Mar/19
<a href="#">Z14145</a>	G-U	<a href="#">AA171A-B-C</a>	Z14027	04/Mar/19
<a href="#">L03132</a>	EI33	<a href="#">AA181A-B-C</a>	Z14020	07/Mar/19
<a href="#">L11035</a>		<a href="#">AA222A-B-C</a>	K05143	10/Mar/19
<a href="#">S10114</a>		<a href="#">AA231A-B-C</a>	F01108	21/Mar/19
<a href="#">L06171</a>	GN90	<a href="#">AA222A-B-C</a>	K05143	24/Mar/19
<a href="#">J03371</a>	EV87	<a href="#">AA222A-B-C</a>	K05143	06/Apr/19
<a href="#">M03312</a>	ET71	<a href="#">AA142-F2</a>	L02276	20/Apr/19
<a href="#">L05311</a>	GF62	<a href="#">AA142-F1</a>	L02276	21/Apr/19
<a href="#">T01112</a>	DH46	<a href="#">AA142-C2</a>	K04170	24/Apr/19
<a href="#">K01225</a>	DL30	<a href="#">AA242A-B-C</a>	L02276	26/Apr/19

Comments
2013, 2014, 2015, 2017 viable births
first time pregnancy, on VF Tx
2017, 2015 and 2014 viable births-new VF case Fall 2018 on Tx
2016, 2017 viable births and 2018 C-section large infant
first time pregnancy, VF Hx recently taken off medication
due Feb 4th to Feb 22nd; first time pregnancy
first time pregnancy and VF Tx
first time pregnancy, on VF Tx
due Feb 18th to March 3rd; first time pregnancy
first time pregnancy, VF Hx recently taken off medication
2013 non viable fetus, 2014, 2015, 2016 viable births, Hx valley fever, fall 2018 recently stopped Tx due to 1yr negative titers. 2014 birth is on valley fever Tx.
2015 and 2016 viable birth-(2015 birth currently VF Tx)
2016 and 2017 viable birth, VF Tx, enlarged liver
2014 viable birth ( 1month old rejected infant hand raise-2yrs old endpoint failure to thrive), 2015 viable birth, 2016 viable birth
new due date 3/17/19, 2014, 2015 and 2017 viable births
new due date 4/7-4/20; 2017 viable birth, 2016 viable birth (1 month poor health endpoint), 2014, 2015 viable birth, 2012 viable birth (2 mo poor health endpoint)- 6/25/18 41 days pregnant pulled for chronic wt loss, VF Tx since 2016-fetal loss not recovered 10/2018
2013, 2016 and 2017 viable births
2014 & 2017 viable birth, 2016 non viable birth
2013 viable birth, 2014 and 2016 non-viable births VF Tx since 2015

<u>A12262</u>	B09021 1	<u>AA222A-B-C</u>	K05143	27/Apr/19
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3/6 to 4/27; new valley fever case 9/2018 on Tx, 2014, 2016 viable birth

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Wednesday, February 27, 2019 7:05 AM  
**To:** Kelly L. Carbone; Jim Murphy; cmali; Tess House  
**Subject:** New Preg Sheet  
**Attachments:** 2-27-19 AZ Current Pregnancies.xls

Dam Information				
Dam (links to Breeding Summary)	Alias	Current Location (links to Move Hx)	Potential Sire	Due Date
<a href="#">Z14335</a>	J-D	<a href="#">AA171A-B-C</a>	Z14027	19/Feb/19
<a href="#">Z13292</a>	E-L	<a href="#">AA112A-B-C</a>	Z13090	22/Feb/19
<a href="#">Z14130</a>	G-I	<a href="#">AA171A-B-C</a>	Z14027	28/Feb/19
<a href="#">Z14145</a>	G-U	<a href="#">AA171A-B-C</a>	Z14027	04/Mar/19
<a href="#">L03132</a>	EI33	<a href="#">AA181A-B-C</a>	Z14020	07/Mar/19
<a href="#">L11035</a>		<a href="#">AA222A-B-C</a>	K05143	10/Mar/19
<a href="#">S10114</a>		<a href="#">AA231A-B-C</a>	F01108	21/Mar/19
<a href="#">L06171</a>	GN90	<a href="#">AA222A-B-C</a>	K05143	24/Mar/19
<a href="#">M03312</a>	ET71	<a href="#">AA142-F2</a>	L02276	20/Apr/19
<a href="#">L05311</a>	GF62	<a href="#">AA142-F1</a>	L02276	21/Apr/19
<a href="#">T01112</a>	DH46	<a href="#">AA142-C2</a>	K04170	24/Apr/19
<a href="#">K01225</a>	DL30	<a href="#">AA242A-B-C</a>	L02276	26/Apr/19
<a href="#">A12262</a>	B09021 1	<a href="#">AA222A-B-C</a>	K05143	27/Apr/19

<b>Comments</b>
first time pregnancy, VF Hx recently taken off medication
first time pregnancy and VF Tx
first time pregnancy, on VF Tx
first time pregnancy, VF Hx recently taken off medication
2013 non viable fetus, 2014, 2015, 2016 viable births, Hx valley fever, fall 2018 recently stopped Tx due to 1yr negative titers. 2014 birth is on valley fever Tx.
2015 and 2016 viable birth-(2015 birth currently VF Tx)
2016 and 2017 viable birth, VF Tx, enlarged liver
2014 viable birth ( 1month old rejected infant hand raise-2yrs old endpoint failure to thrive), 2015 viable birth, 2016 viable birth
new due date 4/7-4/20; 2017 viable birth, 2016 viable birth (1 month poor health endpoint), 2014, 2015 viable birth, 2012 viable birth (2 mo poor health endpoint)- 6/25/18 41 days pregnant pulled for chronic wt loss, VF Tx since 2016-fetal loss not recovered 10/2018
2013, 2016 and 2017 viable births
2014 & 2017 viable birth, 2016 non viable birth
2013 viable birth, 2014 and 2016 non-viable births VF Tx since 2015
3/6 to 4/27; new valley fever case 9/2018 on Tx, 2014, 2016 viable birth

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Thursday, March 21, 2019 3:39 PM  
**To:** Kelly L. Carbone; Jim Murphy; Tess House; cmali  
**Subject:** Updated Pregnancy Sheet  
**Attachments:** 3-20-19 AZ Current Pregnancies.xls

Dam Information				
Dam (links to Breeding Summary)	Alias	Current Location (links to Move Hx)	Potential Sire	Due Date
<a href="#">S10114</a>		<a href="#">AA231A-B-C</a>	F01108	21/Mar/19
<a href="#">L06171</a>	GN90	<a href="#">AA222A-B-C</a>	K05143	24/Mar/19
<a href="#">M03312</a>	ET71	<a href="#">AA142-F2</a>	L02276	20/Apr/19
<a href="#">L05311</a>	GF62	<a href="#">AA142-F1</a>	L02276	21/Apr/19
<a href="#">T01112</a>	DH46	<a href="#">AA142-C2</a>	K04170	24/Apr/19
<a href="#">K01225</a>	DL30	<a href="#">AA242A-B-C</a>	L02276	26/Apr/19
<a href="#">F11079</a>	X-P	<a href="#">AA231A-B-C</a>		19/Jun/19
<a href="#">A09110</a>	PUP2	<a href="#">AA231A-B-C</a>	F01108	21/Jun/19
<a href="#">Z12028</a>	B-E	<a href="#">AA241A-B-C</a>	K04170	04/Aug/19

<b>Comments</b>
New due date 4/7-2016 and 2017 viable birth, VF Tx, enlarged liver
New due date 4/7-2014 viable birth ( 1month old rejected infant hand raise-2yrs old endpoint failure to thrive), 2015 viable birth, 2016 viable birth
new due date 4/7-4/20; 2017 viable birth, 2016 viable birth (1 month poor health endpoint), 2014, 2015 viable birth, 2012 viable birth (2 mo poor health endpoint)- 6/25/18 41 days pregnant pulled for chronic wt loss, VF Tx since 2016-fetal loss not recovered 10/2018
2013, 2016 and 2017 viable births
due 4/13 to 4/24-2014 & 2017 viable birth, 2016 non viable birth
2013 viable birth, 2014 and 2016 non-viable births VF Tx since 2015
2015, 2016 (5 days old endpoint due to trauma), 2017 viable birth
2018 fall viable birth (endpoint pneumonia), spring 2018 non-viable birth, 2016 and 2014 viable births
2016 nonviable birth, 2017 viable birth, 2018 nonviable breech/dystocia full-term, VF Tx

**From:** Tess House <th81@uw.edu>  
**Sent:** Friday, March 22, 2019 12:53 PM  
**To:** Charlotte E. Hotchkiss  
**Cc:** cmali; cjmead2; Jim Murphy; Kelly L. Carbone  
**Subject:** AZ shipment list of potentials

Hi Charlotte,

A follow up point Carolyn, Caroline, Jim, and I were discussing after the meeting today was which animals could potentially be sent to Seattle to free up some space here in Arizona. We're not sure of what animals you would prefer/need for study and/or breeding up there but here are some groups listed below that would make sense (at least on our end) to ship for you to mull over. I've noted any animal with a currently open valley fever case as a VF after the number for you in case that makes a difference.

171 B/C female group: Z14134, Z14140, Z14308, Z16043

152 female group: Z13337(VF), Z14001(VF), Z14150, Z14323(VF), Z14345, Z14367

162 male group: Z13288, Z14007, Z14020, Z14055, Z14176, Z14289, Z14333(VF), Z15032, Z15258(VF) \*\*\*unless there are certain males here you want to retain for breeding in AZ\*\*\*

Males from the current juvenile groups 111, 121, and 122: Z16284, Z16287, Z16297, Z16300, Z16328, Z16339, Z16353, Z17046, Z17050, Z17053, Z17064, Z17091, Z17094, Z17137(VF), Z17157, Z17160, Z17256, Z16277, Z16324, Z17001, Z17049, Z17063, Z17072, Z17083, Z17085, Z17096, Z17136, Z17159, Z17184, Z15329, Z15331, Z15404, Z16041, Z16304, Z16338, Z16343 \*\*\*unless there are certain males here you want to retain for breeding in AZ\*\*\*

Tess

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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**Released:**

- Monitor:**

- ### Cases Closed:

- Senior Veterinarian  
Washington National Primate Research Center/University of Washington  
Arizona Breeding Colony  
PO Box 20836, Mesa, AZ 85277  
Ph: 206.616.0501



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**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Saturday, May 25, 2019 7:22 AM  
**To:** cmali; smintner; Schante M. Hodges; Danielle Parks  
**Cc:** Tess House; Kelly L. Carbone; Jim Murphy  
**Subject:** Re: Friday 142 Case Updates

Sounds good, I will be updating the schedule

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**From:** cmali <cmali@uw.edu>  
**Sent:** Friday, May 24, 2019 12:11 PM  
**To:** cjmead2; smintner; Schante M. Hodges; Danielle Parks  
**Cc:** Tess House; Kelly L. Carbone; Jim Murphy  
**Subject:** Friday 142 Case Updates

**Released:**

- K11143/infant: cleared to return to group (242)
- A03139/ET02/infant: cleared to return to group (221)
- M06139/GM35: cleared to return to group (242)

**Monitor:**

- M11094: breasts engorged due to infant weaning. CTM for any signs of inflammation or mastitis
- M06139/GM35: WL case to remain open. Weight scheduled for 6/7

**Cases Closed:**

- K11143 (post surgical monitoring), VF case remains open
- A10181/PdR2 (trauma): need to ID location to move to until shipment to Seattle (232?)
- K01225/DL30 (ob/gyn), post surgical monitoring case remains open due to scabs at the cranial aspect of the incision
- A03139/ET02 (diarrhea)

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian  
Washington National Primate Research Center/University of Washington  
Arizona Breeding Colony  
PO Box 20836, Mesa, AZ 85277  
Ph: 206.616.0501



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**From:** Sally Thompson-Iritani <sti2@uw.edu>  
**Sent:** Saturday, June 1, 2019 8:58 PM  
**To:** u\_wanprc\_az  
**Cc:** Michael J. Mustari; Jane W. Elliott; Gail R Ellingson; Mark L Clarke; Vanessa Quiroz Hotz; Charlotte E. Hotchkiss; Rita U Bellanca  
**Subject:** AAALAC site visit summary and other items

Hi Arizona Breeding Colony - a quick note on a few topics -

**AAALAC site visit:** I wanted to thank all of you for the extraordinary job you did preparing for and hosting the AAALAC site visit yesterday. The visitors were very complimentary and had the following commendations for the great work that you do.

Commendations:

- Dedication of staff - as exemplified by the animal body condition, well socialized animals, good coats
- Innovation with a unique facility - existing facility and new building
- Professional judgement and proactive approach to Valley Fever - mitigate clinically challenging issue
- Satellite but not isolated - good integration between Seattle and Arizona
- Dedication to social housing in clinical situations
- Positive reinforcement training

AAALAC will be visiting Seattle this next week and do the formal exit briefing on Friday for the University of Washington Animal Care and Use Program - you are all invited to zoom in and listen on Friday if you want and there will be formal communication after the final briefing.

I also wanted to send a few other quick updates regarding on-going items.

**New Building:** The building is progressing thanks to the work of the team in Arizona and Gail and Marty in Seattle. There have been delays and I want to assure everyone that we are dedicated and committed to doing this right so a few delays will benefit the long term goal of having a supreme structure in place to provide an optimal environment for the animals.

**Staffing:** I want to thank all of you for your continued dedication and commitment to the facility. I know that turnover and injuries can take a toll on the staff and morale and everyone at the center appreciates your hard work and the extra effort that you have put in. There are several positions being filled as quickly as possible with the right people to continue the strong care program in place. You will also see that we will be advertising for a Behavior Management person to hire for the Arizona facility. With the upcoming shipment of animals from NIRC it will be very important that we have a person dedicated to BMS and group dynamics of the colony to oversee introductions and breeding group management.

**Performance Development Plans:** It is that time of year again and hopefully you have seen in the Weekly updates that PDP forms are available and your supervisors should be scheduling time to sit down with you and do your performance reviews before the end of June. Jane Elliott and I will be on site at ABC June 25-26<sup>th</sup> if you have any final questions or comments regarding the process. Please feel free to reach out to either one of us if you need help with your forms.

Thank you again for maintaining such a strong program and your continued care and support for the animals, your colleagues and the facility in Arizona. We are lucky to have all of you as part of our team!

*Sally Thompson-Iritani, DVM/PhD, CPIA*

~ Certified Compassion Fatigue and Human-Animal Bond Practitioner ~

Director, Animal Welfare & Research Support | Associate Director, WaNPRC

206.661.6294 / [sti2@uw.edu](mailto:sti2@uw.edu)

Websites: [WaNPRC](#) / [NPRC](#)

Twitter: [@NPRCnews](#)

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**Thank you to the NIH Office of Research Infrastructure Programs grant P51 OD010425 for supporting WaNPRC.**

***\*Please help us continue to support your research by citing our grant number in publications.\****

***"We all really have the same intent...good communication is going to be one of the things that will bring us together.***

***Intent, though, is a human virtue, not a virtue of the computer*** 'Carol Newton, 1975

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**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Friday, June 7, 2019 12:56 PM  
**To:** Kelly L. Carbone; Jim Murphy; Tess House; cmali  
**Subject:** updated pregnancy list  
**Attachments:** 6-7-19 AZ Current Pregnancies.xls

Dam Information				
Dam (links to Breeding Summary)	Alias	Current Location (links to Move Hx)	Potential Sire	Due Date
<a href="#">F11079</a>	X-P	<a href="#">AA112A-B-C</a>		19/Jun/19
<a href="#">A09110</a>	PUP2	<a href="#">AA142-I1</a>	F01108	21/Jun/19
<a href="#">R11037</a>		<a href="#">AA242A-B-C</a>	L02276	15/Jul/19
<a href="#">Z12028</a>	B-E	<a href="#">AA241A-B-C</a>	K04170	04/Aug/19
<a href="#">R09036</a>	IG77	<a href="#">AA242A-B-C</a>	L02276	09/Aug/19
<a href="#">K06231</a>	GR30	<a href="#">AA131A-B-C</a>	A10229	11/Aug/19
<a href="#">L06185</a>	GP26	<a href="#">AA212A-B-C</a>	K07017	17/Aug/19
<a href="#">R10156</a>		<a href="#">AA212A-B-C</a>	K07017	03/Sep/19
<a href="#">L08020</a>	HL83	<a href="#">AA222A-B-C</a>	K05143	26/Sep/19
<a href="#">L07293</a>	HK97	<a href="#">AA222A-B-C</a>	K05143	17/Oct/19

Comments
2015, 2016 (5 days old endpoint due to trauma), 2017 viable birth
2018 fall viable birth (endpoint pneumonia), spring 2018 non-viable birth, 2016 and 2014 viable births
2016 non viable birth, 2018 early abort, no fetus recovered, VF Tx
2016 nonviable birth, 2017 viable birth, 2018 nonviable breech/dystocia full-term, VF Tx
2013 non viable, 2014, 2016, 2018 viable births
viable births 2013, 2016, 2017 and 2018
2013, 2014, 2016, 2017 viable births and 2018 non viable birth
2014 viable birth, 2016 spring non-viable, 2016 fall viable, 2017 viable birth
2013, 2014, 2016 viable births- 2019 viable birth shipped to NYU
2013 and 2016 viable births- 2019 viable birth shipped NYU

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Thursday, June 13, 2019 10:25 AM  
**To:** Kelly L. Carbone; Jim Murphy; Tess House; cmali  
**Subject:** Updated Pregnancy Sheet  
**Attachments:** 6-13-19 AZ Current Pregnancies.xls



Dam Information				
Dam (links to Breeding Summary)	Alias	Current Location (links to Move Hx)	Potential Sire	Due Date
<a href="#">F11079</a>	X-P	<a href="#">AA112A-B-C</a>	F01108	19/Jun/19
<a href="#">A09110</a>	PUP2	<a href="#">AA142-I1</a>	F01108	21/Jun/19
<a href="#">R11037</a>		<a href="#">AA242A-B-C</a>	L02276	15/Jul/19
<a href="#">Z12028</a>	B-E	<a href="#">AA241A-B-C</a>	K04170	16/Jul/19
<a href="#">R09036</a>	IG77	<a href="#">AA242A-B-C</a>	L02276	09/Aug/19
<a href="#">K06231</a>	GR30	<a href="#">AA131A-B-C</a>	A10229	11/Aug/19
<a href="#">L06185</a>	GP26	<a href="#">AA212A-B-C</a>	K07017	17/Aug/19
<a href="#">R10156</a>		<a href="#">AA212A-B-C</a>	K07017	03/Sep/19
<a href="#">L08020</a>	HL83	<a href="#">AA222A-B-C</a>	K05143	26/Sep/19
<a href="#">Z14340</a>	J-E	<a href="#">AA171A-B-C</a>	Z14027	28/Sep/19
<a href="#">R10149</a>		<a href="#">AA241A-B-C</a>	K04170	16/Oct/19
<a href="#">L07293</a>	HK97	<a href="#">AA222A-B-C</a>	K05143	17/Oct/19
<a href="#">K06218</a>	GR11	<a href="#">AA241A-B-C</a>	K04170	22/Oct/19
<a href="#">Z15190</a>	M-G	<a href="#">AA171A-B-C</a>	Z14027	23/Oct/19

<b>Comments</b>
2015, 2016 (5 days old endpoint due to trauma), 2017 viable birth
2018 fall viable birth (endpoint pneumonia), spring 2018 non-viable birth, 2016 and 2014 viable births
2016 non viable birth, 2018 early abort, no fetus recovered, VF Tx
Aug 4th, (first measurement 3/19), 2016 nonviable birth, 2017 viable birth, 2018 nonviable breech/dystocia full-term, VF Tx
2013 non viable, 2014, 2016, 2018 viable births
viable births 2013, 2016, 2017 and 2018
2013, 2014, 2016, 2017 viable births and 2018 non viable birth
2014 viable birth, 2016 spring non-viable, 2016 fall viable, 2017 viable birth
2013, 2014, 2016 viable births- 2019 viable birth shipped to NYU
First time pregnancy, Hx GI, wt loss
2015, 2016, 2017 viable births
2013 and 2016 viable births- 2019 viable birth shipped NYU
viable births 2013, 2015, 2016, 2017 and 2018
First time pregnancy, Hx VF ended Tx 11/2018

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Wednesday, June 19, 2019 11:43 AM  
**To:** Kelly L. Carbone; Jim Murphy; Tess House; cmali  
**Subject:** Updated Pregnancy List  
**Attachments:** 6-19-19 AZ Current Pregnancies.xls

This completes our pregnancy exams, till semi-annuals.

Dam Information				
Dam (links to Breeding Summary)	Alias	Current Location (links to Move Hx)	Potential Sire	Due Date
<a href="#">F11079</a>	X-P	<a href="#">AA112A-B-C</a>	F01108	19/Jun/19
<a href="#">A09110</a>	PUP2	<a href="#">AA231A-B-C</a>	F01108	21/Jun/19
<a href="#">R11037</a>		<a href="#">AA242A-B-C</a>	L02276	15/Jul/19
<a href="#">Z12028</a>	B-E	<a href="#">AA241A-B-C</a>	K04170	16/Jul/19
<a href="#">K06231</a>	GR30	<a href="#">AA131A-B-C</a>	A10229	17/Jul/19
<a href="#">R09036</a>	IG77	<a href="#">AA242A-B-C</a>	L02276	09/Aug/19
<a href="#">L06185</a>	GP26	<a href="#">AA212A-B-C</a>	K07017	17/Aug/19
<a href="#">Z14066</a>	F-X	<a href="#">AA143-A1</a>	Z13090	31/Aug/19
<a href="#">R10156</a>		<a href="#">AA212A-B-C</a>	K07017	03/Sep/19
<a href="#">L08020</a>	HL83	<a href="#">AA222A-B-C</a>	K05143	26/Sep/19
<a href="#">Z14340</a>	J-E	<a href="#">AA171A-B-C</a>	Z14027	28/Sep/19
<a href="#">T10174</a>	W-S	<a href="#">AA242A-B-C</a>	L02276	04/Oct/19
<a href="#">M10190</a>		<a href="#">AA131A-B-C</a>	A10229	07/Oct/19
<a href="#">Z12002</a>	B-D	<a href="#">AA131A-B-C</a>	A10229	13/Oct/19
<a href="#">R10149</a>		<a href="#">AA241A-B-C</a>	K04170	16/Oct/19
<a href="#">L07293</a>	HK97	<a href="#">AA222A-B-C</a>	K05143	17/Oct/19
<a href="#">K06218</a>	GR11	<a href="#">AA241A-B-C</a>	K04170	22/Oct/19

Comments
2015, 2016 (5 days old endpoint due to trauma), 2017 viable birth
2018 fall viable birth (endpoint pneumonia), spring 2018 non-viable birth, 2016 and 2014 viable births
2016 non viable birth, 2018 early abort, no fetus recovered, VF Tx
due Aug 4th, (first measurement 3/19), 2016 nonviable birth, 2017 viable birth, 2018 nonviable breech/dystocia full-term, VF Tx
due Aug 11th (first measurement 3/2019), viable births 2013, 2016, 2017 and 2018
2013 non viable, 2014, 2016, 2018 viable births
2013, 2014, 2016, 2017 viable births and 2018 non viable birth
first time pregnancy-11/2018 C-section due to 3 trimester stillborn retained in uterus breech
2014 viable birth, 2016 spring non-viable, 2016 fall viable, 2017 viable birth
2013, 2014, 2016 viable births- 2019 viable birth shipped to NYU
First time pregnancy, Hx GI, wt loss
2015, 2017, 2018 viable births, VF Tx ended 9/2018
2016, 2017 viable births and 2018 C-section, and 2/2019 non viable, stillborn
2016 non-viable birth, 2017 and 2018 viable births
2015, 2016, 2017 viable births
2013 and 2016 viable births- 2019 viable birth shipped NYU
viable births 2013, 2015, 2016, 2017 and 2018

<u>M04366</u>	FL51	<u>AA131A-B-C</u>	A10229	23/Oct/19
<u>Z15190</u>	M-G	<u>AA171A-B-C</u>	Z14027	23/Oct/19

2014, 2015, 2017 and 2018 viable births

First time pregnancy, Hx VF ended Tx 11/2018

**From:** Tess House <th81@uw.edu>  
**Sent:** Monday, August 5, 2019 7:00 AM  
**To:** Kelly L. Carbone  
**Cc:** cmali  
**Subject:** AT veterinary orientation

Hi Kelly,

I wanted to check in with you to see when a good time would be for the veterinary orientation and valley fever training for Angelica, Kelley, and Enya. Are there some upcoming days that would work well for their schedules to have this done?

Let me know what is easiest for them and for you-  
Dr. H.

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Monday, November 25, 2019 5:19 AM  
**To:** Kelly L. Carbone; Jim Murphy; cmali; Tess House; aw656  
**Subject:** Updated Pregnancy List  
**Attachments:** AZ Current Pregnancies 11-24-2019.xls

Current for both buildings and 3 undetermined in B Bldg.

Dam Information			Pregnancy Information			
Dam (links to Breeding Summary)	Alias	Current Location (links to Move Hx)	Potential Sire	Conception Date	Due Date	Comments
<a href="#">Z09114</a>	A9W022	<a href="#">AB317A-B</a>	M03185	20/Jun/19	09/Dec/19	no pregnancy Hx from NIRC
<a href="#">Z14135</a>	G-M	<a href="#">AA112A-B-C</a>	Z13090	02/Jul/19	21/Dec/19	1st time pregnancy 2019 viable birth (18 days old FD-trauma, newly established breeder group)
<a href="#">A12268</a>	B090607	<a href="#">AA231A-B-C</a>	F01108	04/Jul/19	23/Dec/19	2014, 2015, 2016, 2017 and 2018-viable births
<a href="#">Z14040</a>		<a href="#">AB318C-D</a>	Z08084	18/Jul/19	06/Jan/20	2018 viable birth
<a href="#">M06139</a>	GM35	<a href="#">AA232A-B-C</a>	L02276	26/Jul/19	14/Jan/20	viable birth 2014, 2015, 2017 and 2018
<a href="#">Z12072</a>		<a href="#">AA241A-B-C</a>	K04170	26/Jul/19	14/Jan/20	2016 viable birth, 2017 stillborn full term and early 2018 dystocia full term fall 2018 viable birth
<a href="#">Z12182</a>	A12W011	<a href="#">AB321A-B</a>	K01241	03/Aug/19	22/Jan/20	2018 viable birth
<a href="#">Z12412</a>	09	<a href="#">AB319C-D</a>	F02420	03/Aug/19	22/Jan/20	2018 viable birth
<a href="#">Z11098</a>	A11W023	<a href="#">AB317A-B</a>	M03185	10/Aug/19	29/Jan/20	2017 viable birth
<a href="#">A03194</a>	ET57	<a href="#">AA231A-B-C</a>	F01108	11/Aug/19	30/Jan/20	2018- viable birth, 6/17 FD trauma, 9/16 spontaneous death, 9/15 and 4/14 viable births- 10/2019 early abort 1st trimester
<a href="#">Z11392</a>	A11W087	<a href="#">AB319C-D</a>		14/Aug/19	02/Feb/20	viable birth 2017, non viable spontaneous death 6/2019
<a href="#">Z12353</a>	371	<a href="#">AB302-B2</a>	F02420	14/Aug/19	02/Feb/20	2018, 2019 viable births
<a href="#">L08144</a>	ID14	<a href="#">AA231A-B-C</a>	F01108	15/Aug/19	03/Feb/20	2019 viable birth- hand reared, due to premature, 2018 stillborn, 2017 infant couple days old FD, 2016 & 2014 viable births, valley fever Tx
<a href="#">Z14244</a>	A14W026	<a href="#">AB302-C1</a>	Z12214	23/Aug/19	11/Feb/20	2019 viable birth
<a href="#">R10195</a>		<a href="#">AA241A-B-C</a>	K04170	02/Sep/19	21/Feb/20	2016 and 2017 viable births
<a href="#">Z13156</a>	D-J	<a href="#">AB319C-D</a>	F02420	09/Sep/19	28/Feb/20	2018 viable birth
<a href="#">Z14374</a>	A14W052	<a href="#">AB317C-D</a>	Z12214	10/Sep/19	29/Feb/20	Hx from NIRC first time pregnancy
<a href="#">Z12333</a>	359	<a href="#">AB318C-D</a>	Z08084	12/Sep/19	02/Mar/20	2019 viable birth July, then 1 month old spontaneous death, 2018 viable birth
<a href="#">Z13245</a>	D-Z	<a href="#">AB319C-D</a>	F02420	22/Sep/19	12/Mar/20	viable birth 2018
<a href="#">Z13304</a>	A13W031	<a href="#">AB321A-B</a>	K01241	02/Oct/19	22/Mar/20	Hx from NIRC first time pregnancy
<a href="#">Z14197</a>	A14W020	<a href="#">AB320A-B</a>	Z11389	17/Oct/19	06/Apr/20	2018 viable birth



**From:** Tess House <th81@uw.edu>  
**Sent:** Monday, August 5, 2019 7:24 AM  
**To:** Kelly L. Carbone  
**Cc:** cmali  
**Subject:** RE: AT veterinary orientation

I have a meeting from 10-11 that day but am free at 11. Would it be possible for them to either have their lunch earlier or go to a later lunch (like 11:30-12:30) that day? I'm guessing we would need about 30 minutes to go through the 2 powerpoints.

Dr. H

---

**From:** Kelly L. Carbone <kellyc29@uw.edu>  
**Sent:** Monday, August 5, 2019 7:20 AM  
**To:** Tess House <th81@uw.edu>  
**Cc:** cmali <cmali@uw.edu>  
**Subject:** RE: AT veterinary orientation

Late morning Thursday would be best around 10.

Kelly

---

**From:** Tess House [<mailto:th81@uw.edu>]  
**Sent:** Monday, August 05, 2019 7:00 AM  
**To:** Kelly L. Carbone <[kellyc29@uw.edu](mailto:kellyc29@uw.edu)>  
**Cc:** cmali <[cmali@uw.edu](mailto:cmali@uw.edu)>  
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Hi Kelly,

I wanted to check in with you to see when a good time would be for the veterinary orientation and valley fever training for Angelica, Kelley, and Enya. Are there some upcoming days that would work well for their schedules to have this done?

Let me know what is easiest for them and for you-  
Dr. H.

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

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**From:** Tess House <th81@uw.edu>  
**Sent:** Monday, August 5, 2019 7:35 AM  
**To:** Kelly L. Carbone  
**Cc:** cmali  
**Subject:** RE: AT veterinary orientation

Thanks Kelly! I've created a meeting and invited them to the conference room for that time.

---

**From:** Kelly L. Carbone <kellyc29@uw.edu>  
**Sent:** Monday, August 5, 2019 7:32 AM  
**To:** Tess House <th81@uw.edu>  
**Cc:** cmali <cmali@uw.edu>  
**Subject:** RE: AT veterinary orientation

11 will work

---

**From:** Tess House [<mailto:th81@uw.edu>]  
**Sent:** Monday, August 05, 2019 7:24 AM  
**To:** Kelly L. Carbone <[kellyc29@uw.edu](mailto:kellyc29@uw.edu)>  
**Cc:** cmali <[cmali@uw.edu](mailto:cmali@uw.edu)>  
**Subject:** RE: AT veterinary orientation

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Dr. H

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Kelly

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**From:** Tess House <th81@uw.edu>  
**Sent:** Wednesday, September 18, 2019 2:56 PM  
**To:** Simone Diaz; cmali; cjmead2  
**Cc:** Kelly L. Carbone  
**Subject:** RE: Completed Weights for 9/18/2019

**Importance:** High

Hi Caroline-

Can we sedate Z16004 for a hands on exam tomorrow? I'm adding NS to Z16005 starting tomorrow but am more concerned with the weight trend for Z16004. We will monitor Z16281 for now.

Thanks,  
Dr. H

---

**From:** Simone Diaz <sdiaz4@uw.edu>  
**Sent:** Wednesday, September 18, 2019 2:12 PM  
**To:** cmali <cmali@uw.edu>; Tess House <th81@uw.edu>; cjmead2 <cjmead2@uw.edu>  
**Cc:** Kelly L. Carbone <kellyc29@uw.edu>  
**Subject:** Completed Weights for 9/18/2019

Hi All,

Erika and myself completed weights for room AA122. The majority of the group had positive weight gains, there were a few that had decreases in their weights. Z16004, Z16005, and Z16281 all had decreases in their weights, the first two had significant drops and the third had a minor. All three animals are valley fever animals of concerns and all three animals are in the "C" cage in AA122. There was one prolapse, Z16348, but she was able to correct it and was released back into the group. Upon observation, they had formed feces, they are just straggly looking.

If there are any questions, feel free to reach out!

Thank you,  
Simone

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Wednesday, September 18, 2019 3:46 PM  
**To:** Tess House; Simone Diaz; cmali  
**Cc:** Kelly L. Carbone  
**Subject:** RE: Completed Weights for 9/18/2019

She was moved to 104- fast sign on cage for tomorrow sedation/exam (move in ARMs)

Thanks,  
Caroline

---

**From:** Tess House <th81@uw.edu>  
**Sent:** Wednesday, September 18, 2019 2:56 PM  
**To:** Simone Diaz <sdiaz4@uw.edu>; cmali <cmali@uw.edu>; cjmead2 <cjmead2@uw.edu>  
**Cc:** Kelly L. Carbone <kellyc29@uw.edu>  
**Subject:** RE: Completed Weights for 9/18/2019  
**Importance:** High

Hi Caroline-

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Thanks,  
Dr. H

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**From:** Simone Diaz <sdiaz4@uw.edu>  
**Sent:** Wednesday, September 18, 2019 2:12 PM  
**To:** cmali <cmali@uw.edu>; Tess House <th81@uw.edu>; cjmead2 <cjmead2@uw.edu>  
**Cc:** Kelly L. Carbone <kellyc29@uw.edu>  
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If there are any questions, feel free to reach out!

Thank you,  
Simone



**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Wednesday, October 2, 2019 6:54 AM  
**To:** Kelly L. Carbone; Jim Murphy; Tess House; cmali  
**Attachments:** AZ Current Pregnancies 10-1-2019.xls

Updated pregnancy sheet

Dam Information				Pregnancy Information		
Dam (links to Breeding Summary)	Alias	Spc	Current Location (links to Move Hx)	Potential Sire	Conception Date	Due Date
<a href="#">Z14340</a>	J-E	MN	<a href="#">AA171A-B-C</a>	Z14027	09/Apr/19	28/Sep/19
<a href="#">L07293</a>	HK97	MN	<a href="#">AA222A-B-C</a>	K05143	28/Apr/19	17/Oct/19
<a href="#">M10190</a>		MN	<a href="#">AA131A-B-C</a>	A10229	30/Apr/19	19/Oct/19
<a href="#">Z12002</a>	B-D	MN	<a href="#">AA131A-B-C</a>	A10229	01/May/19	20/Oct/19
<a href="#">K06218</a>	GR11	MN	<a href="#">AA241A-B-C</a>	K04170	03/May/19	22/Oct/19
<a href="#">M04366</a>	FL51	MN	<a href="#">AA131A-B-C</a>	A10229	04/May/19	23/Oct/19
<a href="#">Z15190</a>	M-G	MN	<a href="#">AA171A-B-C</a>	Z14027	04/May/19	23/Oct/19
<a href="#">Z14135</a>	G-M	MN	<a href="#">AA112A-B-C</a>	Z13090	02/Jul/19	21/Dec/19
<a href="#">A12268</a>	B090607	MN	<a href="#">AA231A-B-C</a>		04/Jul/19	23/Dec/19
<a href="#">J03371</a>	EV87	MN	<a href="#">AA222A-B-C</a>	K05143	08/Jul/19	27/Dec/19
<a href="#">L01151</a>	DJ72	MN	<a href="#">AA131A-B-C</a>	A10229	18/Jul/19	06/Jan/20
<a href="#">A03194</a>	ET57	MN	<a href="#">AA231A-B-C</a>	F01108	11/Aug/19	30/Jan/20
<a href="#">L08144</a>	ID14	MN	<a href="#">AA231A-B-C</a>		15/Aug/19	03/Feb/20

<b>Comments</b>
First time pregnancy, Hx GI, wt loss
2013 and 2016 viable births- 2019 viable birth shipped NYU
2016, 2017 viable births and 2018 C-section, and 2/2019 non viable, stillborn
2016 non-viable birth, 2017 and 2018 viable births
viable births 2013, 2015, 2016, 2017 and 2018
2014, 2015, 2017 and 2018 viable births
First time pregnancy, Hx VF ended Tx 11/2018
1st time pregnancy 2019 viable birth (18 days old FD-trauma, newly established breeder group)
2014, 2015, 2016, 2017 and 2018-viable births
2014, 2015, 2017 viable births, spring 2019 non-viable birth
2013, 2014, 2016, 2017 and 2018 viable births
2018- viable birth, 6/17 FD trauma, 9/16 spontaneous death, 9/15 and 4/14 viable births
2019 viable birth- hand reared, due to premature, 2018 stillborn, 2017 infant couple days old FD, 2016 & 2014 viable births, valley fever Tx

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Wednesday, October 9, 2019 6:57 AM  
**To:** Kelly L. Carbone; Jim Murphy; Tess House; cmali  
**Attachments:** AZ Current Pregnancies 10-8-2019.xls

Updated pregnancy sheet complete for Fall semi-annuals, just three for a follow-up to determine dates.

Total 15

Dam Information				Pregnancy Information		
Dam (links to Breeding Summary)	Alias	Spc	Current Location (links to Move Hx)	Potential Sire	Conception Date	Due Date
<a href="#">L07293</a>	HK97	MN	<a href="#">AA222A-B-C</a>	K05143	28/Apr/19	17/Oct/19
<a href="#">M10190</a>		MN	<a href="#">AA131A-B-C</a>	A10229	30/Apr/19	19/Oct/19
<a href="#">Z12002</a>	B-D	MN	<a href="#">AA131A-B-C</a>	A10229	01/May/19	20/Oct/19
<a href="#">K06218</a>	GR11	MN	<a href="#">AA241A-B-C</a>	K04170	03/May/19	22/Oct/19
<a href="#">M04366</a>	FL51	MN	<a href="#">AA131A-B-C</a>	A10229	04/May/19	23/Oct/19
<a href="#">Z15190</a>	M-G	MN	<a href="#">AA171A-B-C</a>	Z14027	04/May/19	23/Oct/19
<a href="#">Z14340</a>	J-E	MN	<a href="#">AA171A-B-C</a>	Z14027	09/Apr/19	27/Oct/19
<a href="#">Z14135</a>	G-M	MN	<a href="#">AA112A-B-C</a>	Z13090	02/Jul/19	21/Dec/19
<a href="#">A12268</a>	B090607	MN	<a href="#">AA231A-B-C</a>	F01108	04/Jul/19	23/Dec/19
<a href="#">J03371</a>	EV87	MN	<a href="#">AA222A-B-C</a>	K05143	08/Jul/19	27/Dec/19
<a href="#">L01151</a>	DJ72	MN	<a href="#">AA131A-B-C</a>	A10229	18/Jul/19	06/Jan/20
<a href="#">Z12072</a>		MN	<a href="#">AA241A-B-C</a>	K04170	26/Jul/19	14/Jan/20
<a href="#">A03194</a>	ET57	MN	<a href="#">AA231A-B-C</a>	F01108	11/Aug/19	30/Jan/20
<a href="#">L08144</a>	ID14	MN	<a href="#">AA231A-B-C</a>	F01108	15/Aug/19	03/Feb/20

<b>Comments</b>
2013 and 2016 viable births- 2019 viable birth shipped NYU
2016, 2017 viable births and 2018 C-section, and 2/2019 non viable, stillborn
2016 non-viable birth, 2017 and 2018 viable births
viable births 2013, 2015, 2016, 2017 and 2018
2014, 2015, 2017 and 2018 viable births
First time pregnancy, Hx VF ended Tx 11/2018
First time pregnancy, Hx GI, wt loss
1st time pregnancy 2019 viable birth (18 days old FD-trauma, newly established breeder group)
2014, 2015, 2016, 2017 and 2018-viable births
2014, 2015, 2017 viable births, spring 2019 non-viable birth
2013, 2014, 2016, 2017 and 2018 viable births
2016 viable birth, 2017 stillborn full term and early 2018 dystocia full term fall 2018 viable birth
2018- viable birth, 6/17 FD trauma, 9/16 spontaneous death, 9/15 and 4/14 viable births
2019 viable birth- hand reared, due to premature, 2018 stillborn, 2017 infant couple days old FD, 2016 & 2014 viable births, valley fever Tx

<u>R10195</u>		MN	<u>AA241A-B-C</u>	K04170	02/Sep/19	21/Feb/20
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2016 and 2017 viable births



**From:** cmali <cmali@uw.edu>  
**Sent:** Monday, October 28, 2019 11:23 AM  
**To:** cjmead2; smintner; Schante M. Hodges  
**Cc:** Sally Thompson-Iritani; Charlotte E. Hotchkiss; Jim Murphy; Kelly L. Carbone; aw656; Tess House  
**Subject:** New VF Cases

Hi Team,

Unfortunately we have new VF cases...

**121:** These cases will start fluconazole tomorrow with titer recheck in 1 month. If unable to treat in group, pull to 104.

- Z17142
- Z17150
- Z17161

**103:**

- Z19006 (Matty): pneumonia case. Already on fluconazole TX. Recheck titer in 1 month

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Supervisory Veterinarian  
Washington National Primate Research Center/University of Washington  
Arizona Breeding Colony  
PO Box 20836, Mesa, AZ 85277  
Ph: 206.616.0501



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**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Tuesday, October 29, 2019 11:00 AM  
**To:** Kelly L. Carbone; Jim Murphy; cmali; Tess House; aw656  
**Attachments:** AZ Current Pregnancies 10-29-19.xls

Current pregnancy sheet with A & B building

Still three from B building yet to be determined.

Thanks,  
Caroline

Dam Information			Pregnancy Information			
Dam (links to Breeding Summary)	Alias	Current Location (links to Move Hx)	Potential Sire	Conception Date	Due Date	Comments
<a href="#">Z09114</a>	A9W022	<a href="#">AB317A-B</a>	M03185	20/Jun/19	09/Dec/19	no pregnancy Hx from NIRC
<a href="#">A03177</a>	CW46, ET40	<a href="#">AA232A-B-C</a>	L02276	24/Jun/19	13/Dec/19	2016 early non-viable, later 2016 viable infant, 2018-viable birth
<a href="#">Z14135</a>	G-M	<a href="#">AA112A-B-C</a>	Z13090	02/Jul/19	21/Dec/19	1st time pregnancy 2019 viable birth (18 days old FD-trauma, newly established breeder group)
<a href="#">A12268</a>	B090607	<a href="#">AA231A-B-C</a>	F01108	04/Jul/19	23/Dec/19	2014, 2015, 2016, 2017 and 2018-viable births
<a href="#">J03371</a>	EV87	<a href="#">AA222A-B-C</a>	K05143	08/Jul/19	27/Dec/19	2014, 2015, 2017 viable births, spring 2019 non-viable birth
<a href="#">L01151</a>	DJ72	<a href="#">AA131A-B-C</a>	A10229	18/Jul/19	06/Jan/20	2013, 2014, 2016, 2017 and 2918 viable births
<a href="#">M06139</a>	GM35	<a href="#">AA232A-B-C</a>	L02276	26/Jul/19	14/Jan/20	viable birth 2014, 2015, 2017 and 2018
<a href="#">Z12072</a>		<a href="#">AA241A-B-C</a>	K04170	26/Jul/19	14/Jan/20	2016 viable birth, 2017 stillborn full term and early 2018 dystocia full term fall 2018 viable birth
<a href="#">Z11098</a>	A11W023	<a href="#">AB317A-B</a>	M03185	10/Aug/19	29/Jan/20	2017 viable birth
<a href="#">L08144</a>	ID14	<a href="#">AA231A-B-C</a>	F01108	15/Aug/19	03/Feb/20	2019 viable birth- hand reared, due to premature, 2018 stillborn, 2017 infant couple days old FD, 2016 & 2014 viable births, valley fever Tx
<a href="#">R10195</a>		<a href="#">AA241A-B-C</a>	K04170	02/Sep/19	21/Feb/20	2016 and 2017 viable births
<a href="#">Z14374</a>	A14W052	<a href="#">AB317C-D</a>	Z12214	10/Sep/19	29/Feb/20	Hx from NIRC first time pregnancy

**From:** cmali <cmali@uw.edu>  
**Sent:** Friday, November 1, 2019 2:58 PM  
**To:** cjmead2; smintner; Schante M. Hodges; Danielle Parks; Jim Murphy; Kelly L. Carbone; Carl L. Trivette II; Jennifer A. Falbo; Erika E. Evans  
**Cc:** Tess House; aw656  
**Subject:** 142 Case Updates

**Weekend Watch:**

- L01151/DJ72 (142): Audible wheeze present on inhalation. Please observe for respiratory abnormalities/difficulties/wheezing.

**New TX/Cases:**

- L01151/DJ71 (142): NEW VF CASE. ADD Albuterol 10ml PO BID and Fluconazole (100mg PO SID) starting FRIDAY. If there is any difficulty giving albuterol, please let the on-call vet know and we will switch to the more concentrated form
- T10118 (142): ADD Azith starting Saturday. New diarrhea repeat case opened (social partner has fluid feces)

**ADD to Schedule:**

- M09202 (142): 11/7 sedated PE/BCS check

**Cleared to return to group:**

- Z14340
- L03310
- L10095, after 11/6 (when TX complete, let vets know when returning so we can schedule weight monitoring)

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

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**From:** Kelly L. Carbone  
**Sent:** Monday, August 5, 2019 7:20 AM  
**To:** Tess House  
**Cc:** cmali  
**Subject:** RE: AT veterinary orientation

Late morning Thursday would be best around 10.

Kelly

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**From:** Tess House [mailto:th81@uw.edu]  
**Sent:** Monday, August 05, 2019 7:00 AM  
**To:** Kelly L. Carbone <kellyc29@uw.edu>  
**Cc:** cmali <cmali@uw.edu>  
**Subject:** AT veterinary orientation

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Dr. H.

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**From:** Kelly L. Carbone  
**Sent:** Monday, August 5, 2019 7:32 AM  
**To:** Tess House  
**Cc:** cmali  
**Subject:** RE: AT veterinary orientation

11 will work

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**To:** Kelly L. Carbone <kellyc29@uw.edu>  
**Cc:** cmali <cmali@uw.edu>  
**Subject:** RE: AT veterinary orientation

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Dr. H

---

**From:** Kelly L. Carbone <kellyc29@uw.edu>  
**Sent:** Monday, August 5, 2019 7:20 AM  
**To:** Tess House <th81@uw.edu>  
**Cc:** cmali <cmali@uw.edu>  
**Subject:** RE: AT veterinary orientation

Late morning Thursday would be best around 10.

Kelly

---

**From:** Tess House [mailto:th81@uw.edu]  
**Sent:** Monday, August 05, 2019 7:00 AM  
**To:** Kelly L. Carbone <kellyc29@uw.edu>  
**Cc:** cmali <cmali@uw.edu>  
**Subject:** AT veterinary orientation

Hi Kelly,

I wanted to check in with you to see when a good time would be for the veterinary orientation and valley fever training for Angelica, Kelley, and Enya. Are there some upcoming days that would work well for their schedules to have this done?

Let me know what is easiest for them and for you-  
Dr. H.

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842

Mailing address- P.O. Box 20836/Mesa, AZ 85277

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**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Friday, December 27, 2019 7:19 AM  
**To:** Kelly L. Carbone; Jim Murphy; Jessica Toscano; Tess House; cmali; aw656  
**Subject:** Dec 30th Jan 6th Jan 13th Schedule-updated  
**Attachments:** Dec 30 Jan 6th Jan 13th.docx

Updated schedule-

Kelly will be moving the three adult dams from 104 to 142 during cage change out. This is to make room for the potential c-section to house in 104. This is due to we have no camera connection. So, it will need to be discussed later if the time arises. At least keep close to procedure room, if needed to monitor that introduction that way and nursery shift can check via flashlight.

---

**From:** cjmead2  
**Sent:** Tuesday, December 24, 2019 12:50 PM  
**To:** Kelly L. Carbone <kellyc29@uw.edu>; Jim Murphy <murphyjm@uw.edu>; Jessica Toscano <jesst393@uw.edu>; Tess House <th81@uw.edu>; cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>  
**Subject:** Dec 30th Jan 6th Jan 13th Schedule

If you want to look over the schedule for the next three weeks, let me know if any additions, questions, changes.

Thanks,  
Caroline



**Monday December 30th (DP SM Off @noon)**

212: Z14335 & Z14340 BWs  
212: Z14145 F/U Ultrasound  
222: A12235 F/U ultrasound  
112: Z14135 new birth Exam  
131: GR30 BW  
162: GR76 BW  
104: Z17162 F/U fecal swab

B Bldg:

302: Z14138 F/U fecal swab  
302: Z14244 intro to 309AB  
302: Z14126 (fast) purse string removal  
312CD-A07104 dam intro into 320CD  
302: Z14202, Z14352 intro to 309AB  
Wean two infants: 319CB Z18228-dam Z13152 & Z19047-dam Z12423 to 308AB

Items Needed Upstairs/Downstairs A Bldg:

Squeeze cage and two catch box  
Downstairs: catch boxes

**Tuesday December 31st (DP SM)**

142: M03312/ET71 pending fecal results and clinical clearance (check with Vets if can return to 232)  
104: IL26 (fast) cbc/chem  
142: M09202 (fast) cbc/chem  
171: Z14320 BW

Items Needed Upstairs A Bldg:

Squeeze cage and two catch box  
Downstairs: catch boxes  
B Bldg: Z14040/Z19291 N-H new infant exam  
B Bldg: Kelly double check cage availability in 302

**Wednesday January 1st (DP SH)**

B Bldg AB 302: Will need a cage ready to pull 317AB Z09114 (Fast 11PM pull food)  
Wednesday night for Sedation Exam and possible c-section Thursday (have ultrasound from A Bldg brought over to B Bldg)

**Thursday January 2nd (SH DP)**

B Bldg:

Z09114 (Fast) Exam/ultrasound & possibly C-section (recovery in 142 for infant reintroduction next day) Vet Staff  
Nursery care q2hrs first night  
104: ET63 intro back to group 242 (check with Vets)  
142: Z14331- F/U fecal swab  
104: Z16068 & Z16281 F/U fecal swab  
122/152: Vet Tech BWs (If c-section move BWs to Friday)

Items Needed Upstairs A Bldg:

Jerry ramp, 2-squeeze cage and two white catch box

### **Friday January 3<sup>rd</sup> (DP SM SH)**

Introduce infant to dam post c-section

104: Z19004/Z18194 wean Z19004 intro to 152, and Z18194 intro to 111 (if cleared by Vets)

104: case BWs (all animals BWs)

142: case BWs

104: IL26 fecal swab

142: ET02 fecal swab

142: EI33 (fast) cbc/chem

B Bldg-302 case BWs

Catch boxes available

### **Monday January 6<sup>th</sup> (DP SM, Jessica Off Jan 6<sup>th</sup> to 10<sup>th</sup>)**

104: Z17162 (pending fecal result intro back to 121 check w/Vets)

B Bldg: (start 8:00Am FAST-BOTH SIDES OF CAGES signage)

302: Z14138 (pending fecal result and clinical clearance post cage rest, intro back to 313CD check w/Vets)

TB Exams: 321AB, 321CD and 320AB

Items Needed B Bldg:

Jerry ramp, 2 squeeze cage, all catch boxes white and metal, 9 recovery cages

### **Tuesday January 7<sup>th</sup> (DP SM)**

B Bldg: (start 8:00Am FAST BOTH SIDES OF CAGES signage)

TB Exams: 319AB, 319CD, 318AB and 318CD

Items Needed B Bldg:

Jerry ramp, 2 squeeze cage, all catch boxes white and metal, 9 recovery cages

### **Wednesday January 8<sup>th</sup> (DP SH)**

B Bldg: (start 8:00Am FAST BOTH SIDES OF CAGES signage)

TB Exams: 1<sup>st</sup> groups 320CD (male/dam A07104) 317AB, 316AB, 316CD, 315AB, 314AB and 2nd 309AB

Items Needed B Bldg:

Jerry ramp, 2 squeeze cage, all catch boxes white and metal, 10 recovery cages

### **Thursday January 9<sup>th</sup> (SH DP)**

104: Z16068 & Z16281 pending fecal result intro back to 122 (check w/ Vets)

231: ID14/Z19289 infant F/U BWs

181: L10152 BW

121: Z17142 follow-up BW

111: Vet Tech BWs

Change out nursery cage

Items Needed Upstairs A Bldg:

Jerry ramp, 2-squeeze cage and two white catch box

### **Friday January 10<sup>th</sup> (DP SM SH off@noon)**

104/142: case BWs

142: ET02- pending fecal clearance (check with Vets if can return to 231)

B Bldg-302 case BWs

### **Monday January 13<sup>th</sup> (DP SM)**

B Bldg: (start 8:00Am FAST BOTH SIDES OF CAGES signage)

TB Exams: 309CD, 313AB, 313CD and 311AB

Items Needed B Bldg:

Jerry ramp, 2 squeeze cage, all catch boxes white and metal, 9 recovery cages

### **Tuesday January 14th (DP SM)**

B Bldg: (start 8:00Am FAST BOTH SIDES OF CAGES signage)

TB Exams: 311CD, 312AB, 312CD and 310AB

Items Needed B Bldg:

Jerry ramp, 2 squeeze cage, all catch boxes white and metal, 9 recovery cages

### **Wednesday January 15th (DP SH)**

B Bldg: (start 8:00Am FAST BOTH SIDES OF CAGES signage)

TB Exams: these groups 1st 308AB and 308CD and 2nd 317CD

Items Needed B Bldg:

Jerry ramp, 2 squeeze cage, all catch boxes white and metal, 10 recovery cages

### **Thursday January 16th (SH DP CJM)**

121/152: Vet Tech BWs

104: Z19059, Z19069, Z19052, Z19020 (intro into 152 if cleared by Vets)

104: Z18043 (fast) follow-up rads

121: Z17170 follow-up cocci titer (check with Vets if need chest rads)

131: L01151/DJ72: follow-up cocci titer (check with Vets if need chest rads)

Items Needed Upstairs A Bldg:

Jerry ramp, 2-squeeze cage and two white catch box

### **Friday January 17th (DP SM SH CJM)**

104: case BWs

142: case BWs

B Bldg-302 case BW

**From:** Tess House <th81@uw.edu>  
**Sent:** Thursday, December 26, 2019 6:28 AM  
**To:** Jim Murphy  
**Subject:** RE: Valley Fever case stats for ABC

It's from multiple reports. Census, treatments, and panels reports. Between those three I got the information. The new cases for fall semi-annuals is not in a report, those are something Dr. M and I track separately. We only had one new case at our spring semi-annuals for comparison.

---

**From:** Jim Murphy <murphyjm@uw.edu>  
**Sent:** Tuesday, December 24, 2019 1:45 PM  
**To:** Tess House <th81@uw.edu>  
**Subject:** RE: Valley Fever case stats for ABC

Thanks - It's interesting to see the trend that corresponds with reported human cases.

Is this information pulled from a single source or do you need to access multiple reports?

Jim

---

**From:** Tess House <th81@uw.edu>  
**Sent:** Tuesday, December 24, 2019 11:42 AM  
**To:** Jim Murphy <murphyjm@uw.edu>  
**Cc:** cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>; Charlotte E. Hotchkiss <chotchkiss@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; cjmead2 <cjmead2@uw.edu>; Jessica Toscano <jesst393@uw.edu>  
**Subject:** Valley Fever case stats for ABC

Hi Jim,

I just checked our numbers for the NSAB update in January and they are as follows:

- 483 animals currently in Arizona
- 44 animals (9% of colony) on fluconazole treatment
- 33 of these animals (7% of colony) is currently cocci titer positive
- 12 new cases this fall during semi-annual exams. This trend follows what has been noted in human valley fever cases this year and the summer weather/monsoon pattern is suspected to play a role (very dry summer followed by a burst of intense rain at the end of the summer).

Hopefully these numbers will stay stable (except for a change in our census) by the time the NSAB meets.

Any questions, let me know!

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
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Office phone 206.685.1842  
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Mailing address- P.O. Box 20836/Mesa, AZ 85277

**From:** Sally Thompson-Iritani <sti2@uw.edu>  
**Sent:** Tuesday, December 24, 2019 11:37 AM  
**To:** Tess House; Jim Murphy  
**Cc:** cmali; aw656; Charlotte E. Hotchkiss; cjmead2; Jessica Toscano  
**Subject:** RE: Valley Fever case stats for ABC

Thank you so much Tess - this is incredibly helpful!

Sally

---

**From:** Tess House <th81@uw.edu>  
**Sent:** Tuesday, December 24, 2019 10:42 AM  
**To:** Jim Murphy <murphyjm@uw.edu>  
**Cc:** cmali <cmali@uw.edu>; aw656 <aw656@uw.edu>; Charlotte E. Hotchkiss <chotchkki@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>; cjmead2 <cjmead2@uw.edu>; Jessica Toscano <jesst393@uw.edu>  
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**Sent:** Tuesday, December 24, 2019 10:42 AM  
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Mailing address- P.O. Box 20836/Mesa, AZ 85277

**From:** Charlotte E. Hotchkiss <chotchki@uw.edu>  
**Sent:** Friday, December 20, 2019 1:00 PM  
**To:** C. Malinowski; Sally Thompson-Iritani  
**Cc:** Jim Murphy  
**Subject:** RE: NSAB for AZ

Thanks!  
Charlotte

---

**From:** C. Malinowski <cmali@uw.edu>  
**Sent:** Friday, December 20, 2019 12:53 PM  
**To:** Charlotte E. Hotchkiss <chotchki@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>  
**Cc:** Jim Murphy <murphyjm@uw.edu>  
**Subject:** Re: NSAB for AZ

13 new VF cases for 2019 (29.5% of all VF cases, 5% of all A building animals, 2.7% of all animals)

44 total cases (17% of A building, 9% of all animals)

- 11 with negative titers that are still under TX (25% of all VF cases)
- 33 with active titers (75% of all VF cases)

Let me know if you need more info!

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**  
Supervisory Veterinarian  
Washington National Primate Research Center/University of Washington  
Arizona Breeding Colony  
PO Box 20836, Mesa, AZ 85277  
Ph: 206.616.0501



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**From:** Charlotte E. Hotchkiss <chotchki@uw.edu>  
**Sent:** Friday, December 20, 2019 12:51 PM  
**To:** cmali <cmali@uw.edu>; Sally Thompson-Iritani <sti2@uw.edu>  
**Cc:** Jim Murphy <murphyjm@uw.edu>  
**Subject:** RE: NSAB for AZ



We have both a Word document to give the NSAB people ahead of time as well as a Powerpoint to show when they're here. They say essentially the same thing. We won't have much time at NSAB, so I haven't been putting in much detail, but we should mention VF in both.

In contrast, we'll have to do the progress report (RPPR) in January, and there we will want more detail. We will definitely want to refer there to the information that Tess sent yesterday about how this year has been particularly bad for VF to put our numbers in context. But I haven't thought that far ahead yet.

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**To:** Sally Thompson-Iritani <sti2@uw.edu>; Charlotte E. Hotchkiss <chotchkki@uw.edu>  
**Cc:** Jim Murphy <murphyjm@uw.edu>  
**Subject:** NSAB for AZ

Hi Sally and Charlotte,

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Would you like this in powerpoint form or does it need to be written up ahead of time (similar to what Charlotte sent Him and I for NSAB updates)?

Please let me know what you expect/want and I will get it done!

Best,  
Carolyn

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**From:** Charlotte E. Hotchkiss <chotchki@uw.edu>  
**Sent:** Friday, December 20, 2019 11:52 AM  
**To:** cmali; Sally Thompson-Iritani  
**Cc:** Jim Murphy  
**Subject:** RE: NSAB for AZ  
**Attachments:** NSAB2020 - Breeding Management.pptx; NSAB Jan 2020 Breeding and VS.docx

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# Breeding Management

# Accomplishments

- Both Arizona and NIRC completely SPF
- New building in Arizona completed and occupied
- Full integration of Arizona with Seattle personnel
- BCMC/BMC joint meeting successfully hosted in Arizona
- New U42 proposal submitted and scored
- Good fertility for actively breeding animals
- Low mortality in breeding colony
- 92 SNP panel based on GBS data validated and being used for parentage confirmation

# Breeding production challenges

- Animals not in breeding due to moves and sales
- Increased demand for females
- Selecting males for genetics, behavior, clinical health, and productivity
- Limited options for breeding style in Arizona
  - Cage breeding is an option in Seattle for animals that don't do well in compounds
  - Shipping animals to Seattle only cost-effective in large groups

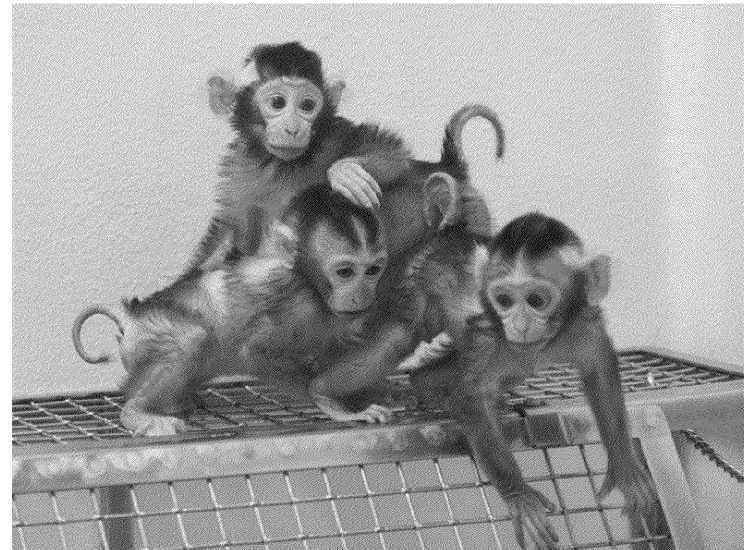


# Goals – moving out of NIRC

- 227 animals moved to new building in Arizona
- 151 animals not moved
- Requests for 122 animals in process (not all confirmed)
- Installing pens in 6<sup>th</sup> floor G/H wing of HSB
  - Must be completed by April 2020
  - Plan to ship animals from NIRC to Seattle in spring

# Whatever happened to eSPF colony?

- Survey of investigators who work with *M. nemestrina*
  - No specific demand for eSPF
- Requests for other characteristics
  - MHC typing
  - Behavioral characteristics
  - AAV serotype negative
  - MRSA, Chagas, flavivirus



### Breeding Management ()

1. Establish and maintain SPF *M. nemestrina* breeding colonies. Animals at both the NIRC and Arizona facilities remain free of SRV, STLV, and B virus. We continue semi-annual testing.
2. Consolidate breeding colony by moving animals from NIRC to Arizona and Seattle. The new animal housing building in Arizona was completed in September. 227 animals have been moved from NIRC to Arizona, leaving 151 animals at NIRC. There are requests for 122 animals in process, but not all are confirmed. Whenever possible, these orders will be filled with animals from NIRC, and any remaining animals will be transferred to Seattle. We anticipate that we will have all animals out of NIRC by June 2020.
3. Establish pool of *M. nemestrina* in Seattle for immediate assignment to project. We have received supplemental funding to construct pen housing for nonhuman primates in rooms formerly occupied by dogs, pigs, and sheep. Pen housing will provide a more enriched environment than cage housing, as well as reducing husbandry workload.
4. Supply animals to meet investigator needs as efficiently as possible. In 2019 ? *M. nemestrina* were assigned to on-site investigators, and ? were transferred to external investigators. The backlog of orders has been fulfilled, and new requests are processed in a timely manner following receipt of all paperwork.
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## WaNPRC Breeding Report 2018 – 4<sup>th</sup> Quarter

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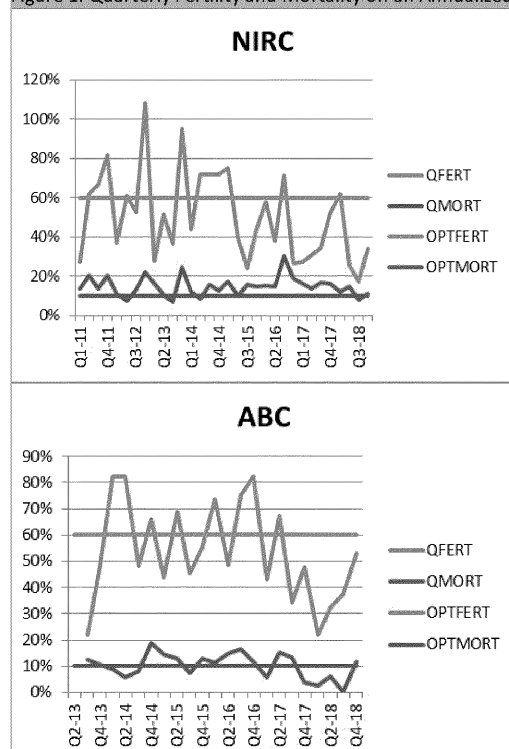
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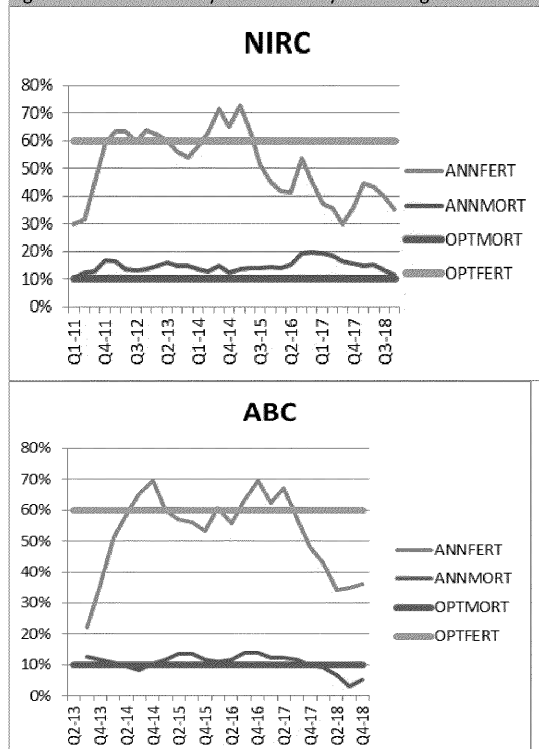
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Figure 1: Quarterly Fertility and Mortality on an Annualized Basis (data for the quarter multiplied by 4)



Legend: Blue = Fertility, Red = Mortality. Straight lines are standards to meet.

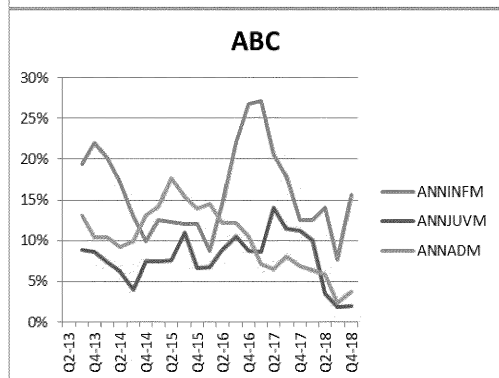
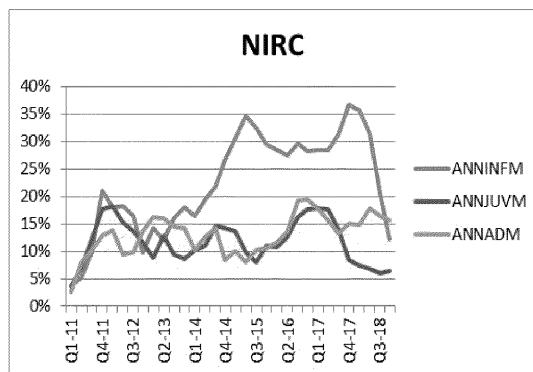
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Legend: Blue = Fertility, Red = Mortality. Straight lines are standards to meet.

Figure 3: Annual Mortality as Moving Annual Window, By Age (Data from the preceding 12 months)





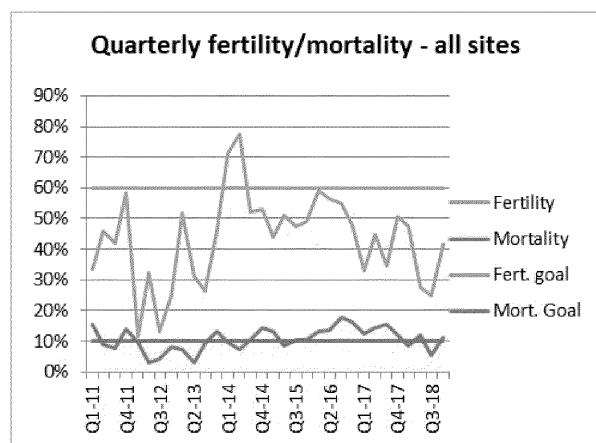
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Looking at the off-site colonies combined, fertility has varied over the past few years, but was higher in 2015 and 2016 than in 2011-2013. Mortality had increased recently, but has now decreased dramatically at both facilities. Fertility has been low when all adult females are included in the equation, but good when only females in breeding situations at the beginning of the quarter are counted.

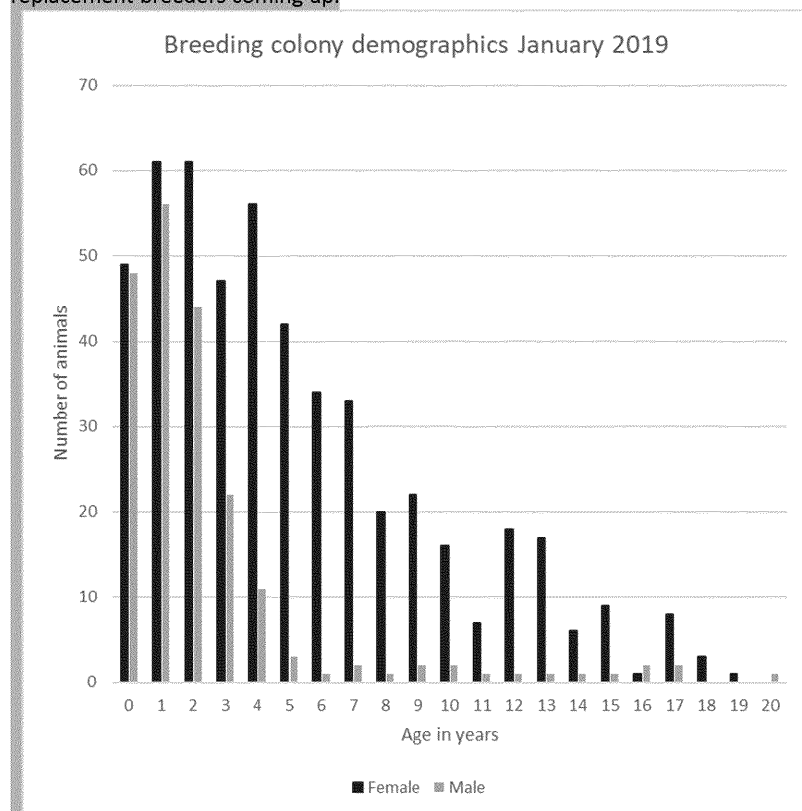
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2013	39		8
2014	64		10
Average '11-'14	40		9.25
2015	48		11
2016	55		15



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2018 q1	48		9
2018 q2	29	56	13
2018 q3	24	52	5
2018 q4	41	76	11



The age spread in the breeding colony shows few older animals, and a good number of replacement breeders coming up.



**From:** cmali <cmali@uw.edu>  
**Sent:** Friday, December 20, 2019 10:45 AM  
**To:** Sally Thompson-Iritani; Charlotte E. Hotchkiss  
**Cc:** Jim Murphy  
**Subject:** NSAB for AZ

Hi Sally and Charlotte,

Tess mentioned that you want an update on VF cases for AZ for the NSAB as well as updates on the new building.

Would you like this in powerpoint form or does it need to be written up ahead of time (similar to what Charlotte sent Him and I for NSAB updates)?

Please let me know what you expect/want and I will get it done!

Best,  
Carolyn

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Supervisory Veterinarian  
Washington National Primate Research Center/University of Washington  
Arizona Breeding Colony  
PO Box 20836, Mesa, AZ 85277  
Ph: 206.616.0501



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**From:** cmali <cmali@uw.edu>  
**Sent:** Friday, December 20, 2019 9:55 AM  
**To:** Charlotte E. Hotchkiss; Jim Murphy  
**Subject:** Re: NSAB  
**Attachments:** NSAB Jan 2020 Breeding and VS CMM Edits.docx

Here you go Charlotte- see edits for AZ vet section in attached document

**Carolyn Malinowski, MS, DVM, CMAR, CPIA, DACLAM**

Supervisory Veterinarian  
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**Sent:** Friday, December 20, 2019 10:32 AM  
**To:** Jim Murphy <murphyjm@uw.edu>  
**Cc:** cmali <cmali@uw.edu>  
**Subject:** NSAB

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Thanks!  
Charlotte

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## WaNPRC Breeding Report 2018 – 4<sup>th</sup> Quarter

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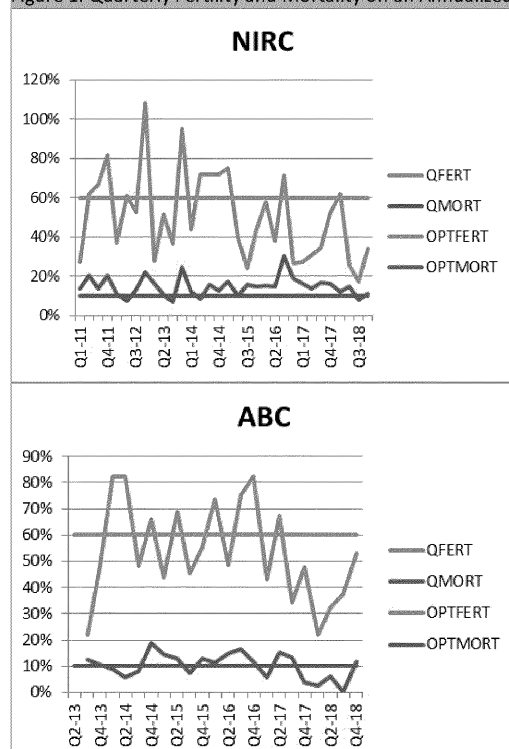
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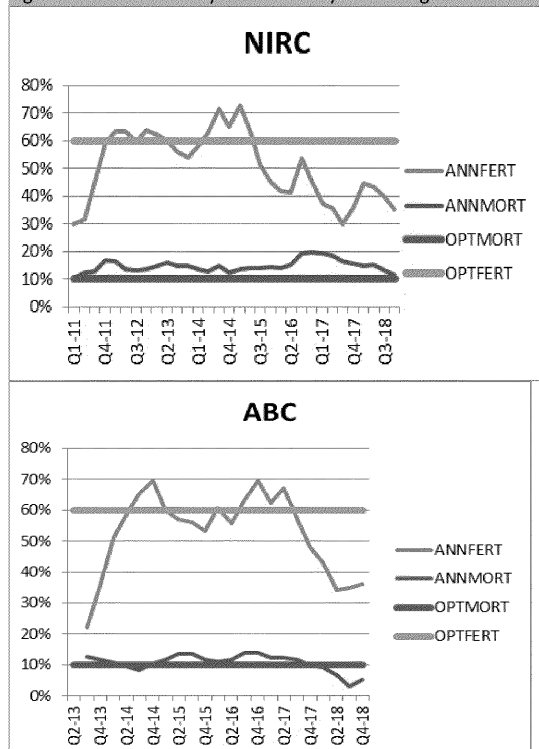


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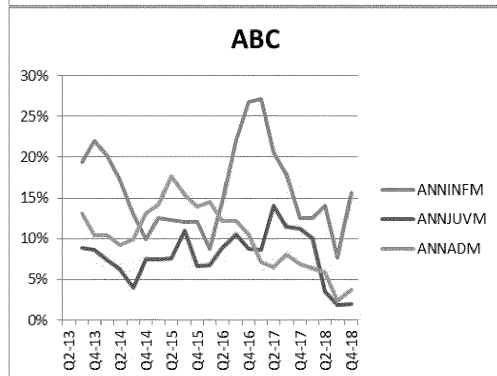
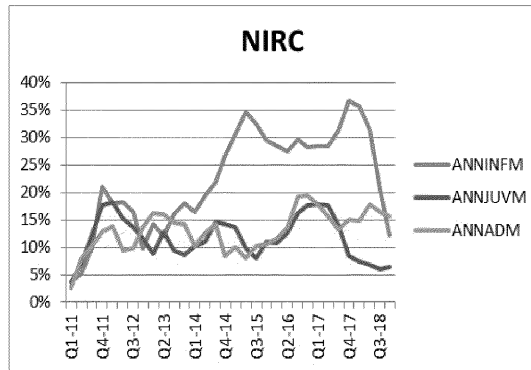
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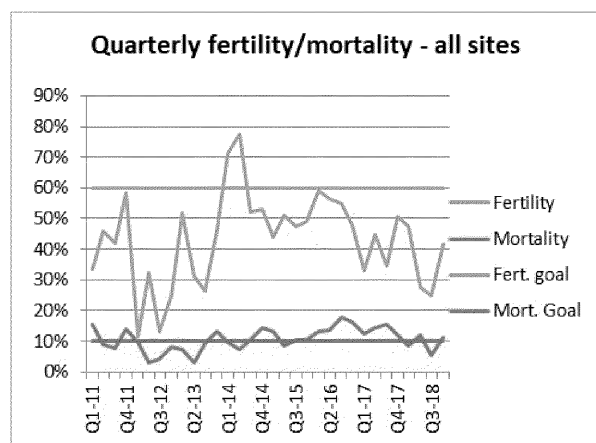


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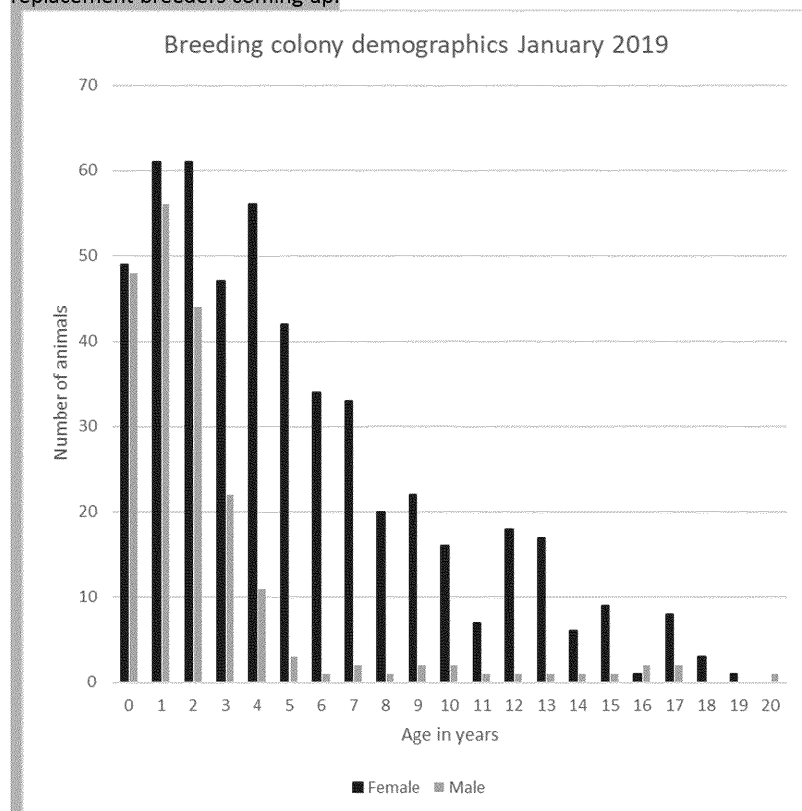
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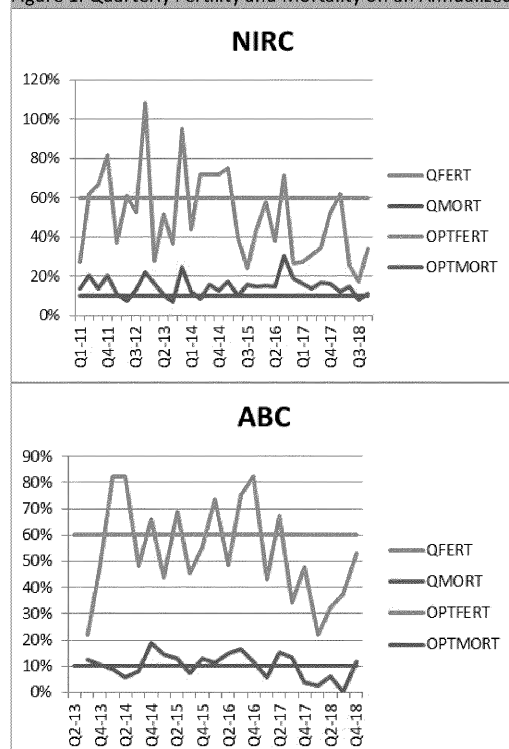
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Total MN	925.75	324.75	162	69.5	369.5	439	151

The following graphs compare the two facilities. Fertility tends to appear higher during the winter at NIRC because many animals are only in breeding situations when they are outdoors in the summer. Calculations are adjusted in the table below the graphs to account for animals not in breeding situations. At ABC, fertility has been decreasing. This is due to some animals not being in breeding situations, and some older infants remaining on dams, which reduces fertility. Mortality/culling is within acceptable limits.

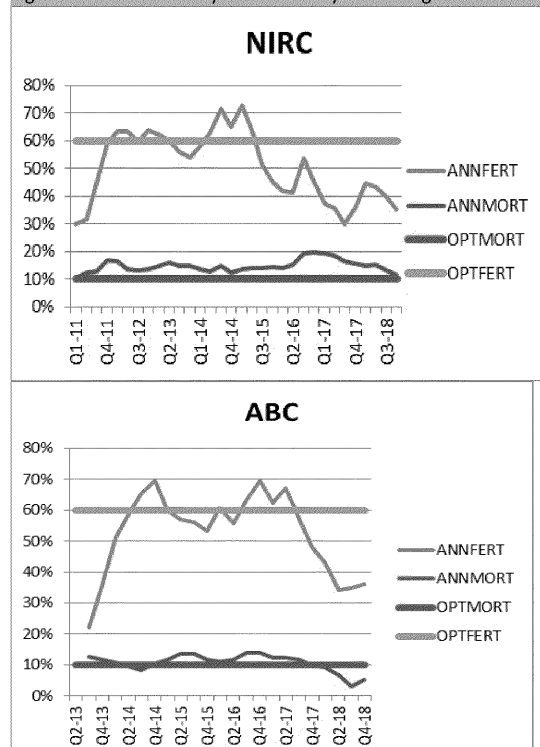
**Commented [CH1]:** This section cannot be updated until January because the final data for December is not available yet.

Figure 1: Quarterly Fertility and Mortality on an Annualized Basis (data for the quarter multiplied by 4)



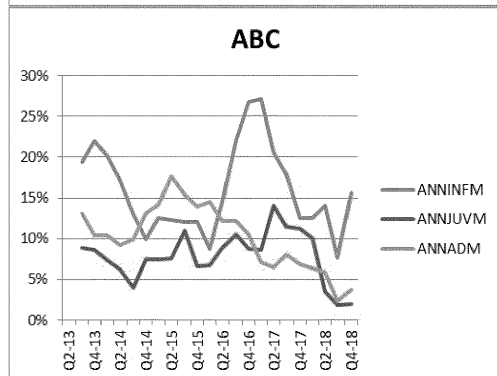
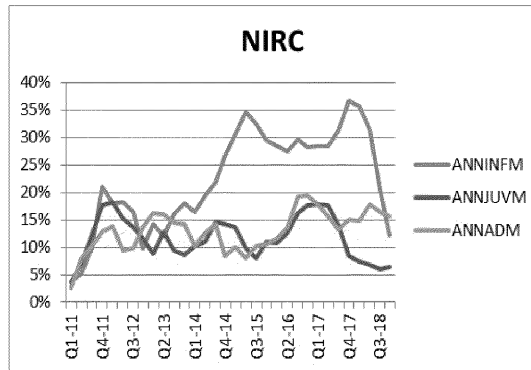
Legend: Blue = Fertility, Red = Mortality. Straight lines are standards to meet.

Figure 2: Annual Fertility and Mortality as Moving Annual Window (data from the preceding 12 months)



Legend: Blue = Fertility, Red = Mortality. Straight lines are standards to meet.

Figure 3: Annual Mortality as Moving Annual Window, By Age (Data from the preceding 12 months)

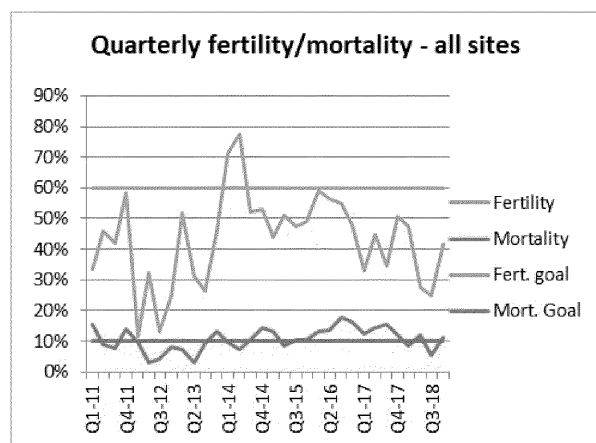


Blue = infant, Red = juvenile, Green = adult

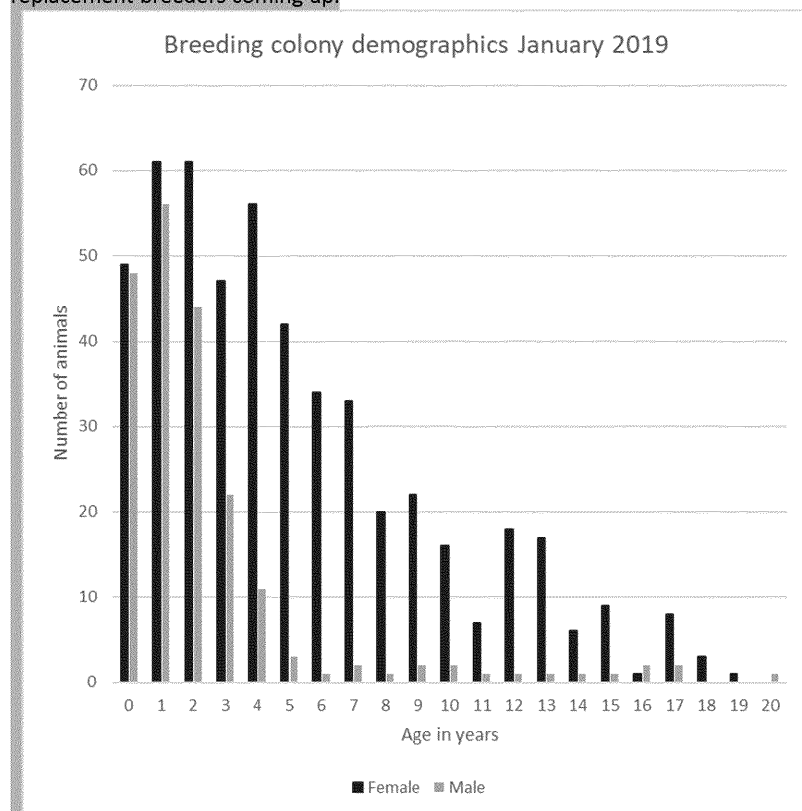
Looking at the off-site colonies combined, fertility has varied over the past few years, but was higher in 2015 and 2016 than in 2011-2013. Mortality had increased recently, but has now decreased dramatically at both facilities. Fertility has been low when all adult females are included in the equation, but good when only females in breeding situations at the beginning of the quarter are counted.

Year	Fertility (%)	Fertility (%) – active breeders only	Mortality (%)
2011	45		12
2012	21		7
2013	39		8
2014	64		10
Average '11-'14	40		9.25
2015	48		11
2016	55		15

2017	41		14
2018 q1	48		9
2018 q2	29	56	13
2018 q3	24	52	5
2018 q4	41	76	11



The age spread in the breeding colony shows few older animals, and a good number of replacement breeders coming up.





**From:** Jim Murphy <murphyjm@uw.edu>  
**Sent:** Thursday, December 19, 2019 4:17 PM  
**To:** Jim Murphy  
**Subject:** NSAB  
**Attachments:** NSAB Jan 2020 Breeding and VS - AZ specific portion.docx

Jim Murphy  
Facility Manager, Arizona Breeding Colony  
4202 N. Higley Rd.  
Mesa, AZ 85215  
Office: (206) 221-8211  
Cell: (480) 204-2865  
[murphyjm@uw.edu](mailto:murphyjm@uw.edu)



## Breeding Management ()

### **SPECIFIC UPDATES FOR ARIZONA BREEDING COLONY:**

1. Staffing support: Staffing is stable with two veterinarians, a vet tech supervisor, and three veterinary technicians. The husbandry staff currently consists of ten animal technicians and one supervisor. One animal technician was recently hired as part of an increase in staff in preparation for incoming animals from NIRC. Over the next few months, three more animal techs will be hired. The timing of these hires will coincide with the completion of the new building and the increase in animal population.
2. The AD is in regular, close communication with the staff in AZ. The personnel in AZ participate in multiple meetings and one on one phone calls with Seattle staff, and are involved in decision making regarding the AZ campus and Center as a whole.
3. We recently hosted the Seattle Supervisory Veterinary Technician for a three-day training course on anesthesia and monitoring which all our veterinary technicians attended. The staff worked with our new monitoring equipment to become familiar with taking blood pressure readings, evaluating EKGs, and interpreting end tidal CO2 levels. In August, one of our veterinary technicians will be traveling to Seattle for additional hands-on training.
4. AZ veterinarians participate in UW IACUC meetings. Dr. Tess House is a regular member and provides monthly updates to the IACUC. Dr. Carolyn Malinowski serves as an alternate when Dr. House is not available.
5. AZ personnel participate in NPRC consortium working groups, and the combined BMC/BCMC face-to-face meeting was hosted at the WaNPRC AZ facility in January 2019.
6. Construction is progressing with the new building to increase capacity in AZ, which will result in lower per diem at that facility and eliminate cost for contract care of animals at NIRC. The building project is in its final stages and substantial completion is expected by mid-August 2019.
7. Animal mortality is low - mortality at 5% (goal is below 10%).
8. Coccidioidomycosis is still present and being managed with Fluconazole treatment and environmental controls (wetting the areas regularly to decrease sporulation). The Arizona colony currently has 250 animals, of which 22 (8.8%) are cocci titer positive. Animals brought in from NIRC will be housed in the new building which has animal enclosure space exclusively indoors with HEPA filtration to prevent exposure.
9. Fertility at 85% (goal is 60%) for animals in active breeding. Some breeding limited because of space and repair considerations.
10. HDPE wall coverings are standing up well to the macaques and the daily cleaning. As budgets permit, this solution will continue to be installed as wall covering in the group enclosures.
11. We continue trying to be cost effective by completing (when possible and appropriate) repairs, upgrades, and grounds maintenance. Examples of repairs recently completed in-house, include: Replacement of worn bearings on large HVAC units, installation of a wall AC unit on one of our feed storage buildings, and rebuilding of the misting system used to provide cooling and enrichment for the NHPs in the outdoor enclosures.





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**From:** Tess House <th81@uw.edu>  
**Sent:** Thursday, December 19, 2019 10:56 AM  
**To:** cmali  
**Cc:** Jim Murphy; aw656  
**Subject:** NSAB

Hi Dr. M-

At the Oversight committee meeting today, Sally was discussing the NSAB meeting (Jan 14<sup>th</sup>) and what updates we'll need to give. I did communicate that veterinary staff will be doing end of quarantine exams on that day (it's in the morning 8-12 Seattle time). Sally said they will want updates on the new building as well as Valley Fever since there were so many cases in the animals shipped to Seattle in July.

If we have time to meet tomorrow (otherwise after your trip home), we should sit down and talk about this.

Dr. H

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Thursday, January 3, 2019 12:34 PM  
**To:** Kelly L. Carbone; Jim Murphy; cmali; Tess House  
**Subject:** Week of January 7th 2019

**Sunday January 6th**

**ATs have 241 & 242 male(s) separated into "C" for sedation Monday AM**

**Monday January 7th**

both males will recover in Group six for a few days to monitor eating, till Wednesday

241: Must be Fasted Group (male), due to intubation procedure??  
242: Must be Fasted Group (male), due to intubation procedure??  
142: ET71 & US Must be Fasted, due to intubation procedure??  
142: ET71 follow-up fecal swab  
104: Z17256 follow-up fecal swab  
171: Z14340 BW (if BW down move into 171C or cage)  
142: Z16092/Z17080 intro into 122 Monday or Tuesday  
142: group six ready Monday or Tuesday to pull (152) Z13319 & M10166  
242: ET40- Monday or Tuesday sedate to examine left eye

upstairs:  
(2) group six

**Tuesday January 8th**

162: sedation for BWs and Rads/Introductions (Fast group)

downstairs:  
jerry ramp  
2 squeeze cages  
3 recovery cages

**Wednesday January 9th**

104: (4) Z17135, Z16341, Z17137, Z16358 -pending cocci results return to 111 (may keep 341/358 in cage together)  
104: Z17001, Z17196 pending fecal results/BWs before intro into 121  
142: M04326 pending fecal results & BW intro into 131, can't be on meds in group  
142: M09202 BW & infant  
142: T01112 chem and US (Fast)

Items needed:  
catch boxes

ATs: 111 BWs

**Thursday January 10th**

104: Z17184 follow-up fecal swab

152: BWs & M10166 (CBC) & Z13319 (CBC/chem) (fast bloodwork animals, should hopefully be moved into 142)

181: Z12342- new birth exam

**Friday January 11th**

104: case BWs

142: case BWs

222: GN90, DL86, A12262 BW

231: F11079 BW

Items needed:

all catch boxes for upstairs and downstairs

**From:** cmali <cmali@uw.edu>  
**Sent:** Thursday, January 31, 2019 3:12 PM  
**To:** Michael H Shim  
**Cc:** Jim Murphy; Tess House; Kelly L. Carbone; cjmead2  
**Subject:** AZ Report Question

Hi Mike,

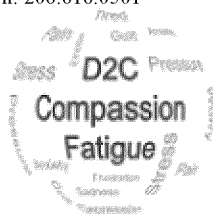
We are interested in trying to get a report of all animals with a positive cocci titer between January 2018-Jan 2019.

Is it possible to generate this type of report? Is this something we can do from our end or is it a special report that you are able to run?

Thank you,  
Carolyn

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian  
Washington National Primate Research Center/University of Washington  
Arizona Breeding Colony  
PO Box 20836, Mesa, AZ 85277  
Ph: 206.616.0501



*Dare 2 Care...* | explore UW's Compassion Fatigue Program



**From:** Michael H Shim <mikeshim@uw.edu>  
**Sent:** Thursday, January 31, 2019 4:12 PM  
**To:** cmali  
**Cc:** Jim Murphy; Tess House; Kelly L. Carbone; cjmead2  
**Subject:** RE: AZ Report Question  
**Attachments:** Cocci Positive by Date Range.xls

Hi Carolyn,  
I hope this is what you are looking for.  
Positive was determined by titer being anything but; negative (-), <1:1, < 1:1, indeterminate (I), indeterminate (i).  
Please let me know if you require additional information.  
This Cocci Positive by Date Range report is in the Arizona folder now.

Thank you,

Michael Shim | [mikeshim@uw.edu](mailto:mikeshim@uw.edu)  
206.543.0116 | 206.823.4140 (Mobile)

---

**From:** cmali [mailto:cmali@uw.edu]  
**Sent:** Thursday, January 31, 2019 3:12 PM  
**To:** Michael H Shim <mikeshim@uw.edu>  
**Cc:** Jim Murphy <murphyjm@uw.edu>; Tess House <th81@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>; cjmead2 <cjmead2@uw.edu>  
**Subject:** AZ Report Question

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Thank you,  
Carolyn

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian  
Washington National Primate Research Center/University of Washington  
Arizona Breeding Colony  
PO Box 20836, Mesa, AZ 85277  
Ph: 206.616.0501



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Animal	Sx	Result Date	Test Description
A03194	F	3/20/2018	IgG Titer Result,IgG Titer Value
A12255	F	1/4/2018	IgG Titer Result,IgG Titer Value
A12255	F	2/13/2018	IgG Titer Result,IgG Titer Value
A12262	F	9/24/2018	IgG Titer Result,IgG Titer Value
A12262	F	11/6/2018	IgG Titer Result,IgG Titer Value
A12264	F	3/27/2018	IgG Titer Result,IgG Titer Value
A12269	F	9/24/2018	IgG Titer Result,IgG Titer Value
F08047	F	2/13/2018	IgG Titer Result
F08047	F	2/13/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
F08047	F	4/30/2018	IgG Titer Result,IgG Titer Value
F08132	F	9/10/2018	IgG Titer Result,IgG Titer Value
K06192	F	10/1/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
K06192	F	11/13/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
K06192	F	12/11/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
K06271	F	4/2/2018	IgG Titer Result,IgG Titer Value
K06271	F	6/18/2018	IgG Titer Result,IgG Titer Value
K06271	F	9/25/2018	IgG Titer Result,IgG Titer Value
K06271	F	12/26/2018	IgG Titer Result,IgG Titer Value
K07291	F	4/9/2018	IgG Titer Result,IgG Titer Value
K10112	F	10/2/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
K10112	F	11/15/2018	IgG Titer Result,IgG Titer Value
K10112	F	12/26/2018	IgG Titer Result,IgG Titer Value
K11143	F	4/9/2018	IgG Titer Result,IgG Titer Value
K11143	F	10/8/2018	IgG Titer Result,IgG Titer Value
L02276	M	3/2/2018	IgG Titer Result,IgG Titer Value
L02276	M	8/28/2018	IgG Titer Result,IgG Titer Value
L06156	F	3/13/2018	IgG Titer Result,IgG Titer Value
L06156	F	9/10/2018	IgG Titer Result,IgG Titer Value
L10152	F	3/12/2018	IgG Titer Result,IgG Titer Value
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M10123	F	2/13/2018	IgG Titer Result,IgG Titer Value
M10123	F	5/9/2018	IgG Titer Result,IgG Titer Value
M10123	F	8/14/2018	IgG Titer Result,IgG Titer Value
M10123	F	12/17/2018	IgG Titer Result,IgG Titer Value
M11051	F	4/9/2018	IgG Titer Result,IgG Titer Value
M11051	F	10/8/2018	IgG Titer Result,IgG Titer Value
R09036	F	10/8/2018	IgG Titer Result,IgG Titer Value
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R10151	F	3/26/2018	IgG Titer Result,IgG Titer Value
R10156	F	3/27/2018	IgG Titer Value
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R10156	F	7/30/2018	IgG Titer Value

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S10185	F	3/13/2018	IgG Titer Result,IgG Titer Value
T06226	F	3/13/2018	IgG Titer Result,IgG Titer Value
T11135	F	4/9/2018	IgG Titer Result,IgG Titer Value
T11135	F	9/7/2018	IgG Titer Result,IgG Titer Value
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Z11338	F	9/24/2018	IgG Titer Result,IgG Titer Value
Z12028	F	10/1/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z12028	F	11/13/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
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Z13022	F	2/13/2018	IgG Titer Result
Z13067	F	4/16/2018	IgG Titer Result,IgG Titer Value
Z13067	F	5/23/2018	IgG Titer Result,IgG Titer Value
Z13067	F	10/16/2018	IgG Titer Result,IgG Titer Value
Z13082	F	3/20/2018	IgG Titer Result,IgG Titer Value
Z13082	F	9/11/2018	IgG Titer Result,IgG Titer Value
Z13093	M	6/5/2018	IgG Titer Result,IgG Titer Value
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Z13292	F	10/16/2018	IgG Titer Result,IgG Titer Value
Z13337	F	12/24/2018	IgG Titer Result,IgG Titer Value
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positive (+), 1:32, positive (+), 1:2
positive (+), 1:32, positive (+), 1:16
positive (+), 1:64, positive (+), 1:16
positive (+), 1:2, positive (+), 1:2
positive (+), 1:2, positive (+), 1:2
positive (+), 1:8
positive (+), 1:8

**From:** Tess House <th81@uw.edu>  
**Sent:** Friday, February 1, 2019 1:03 PM  
**To:** Jesse C. Day  
**Cc:** cmali; cjmead2; Jim Murphy  
**Subject:** RE: NYU infant questions

Hi Jesse,

Thanks for the information on the move. As far as the testing goes, here is what we collected on the dams:

- 1) Fecal swab (sent to Seattle)
- 2) Virology (sent to Seattle)
- 3) CBC/chemistry (run in house in Arizona)
- 4) Fecal flotation and external parasite exam (run in house in Arizona)
- 5) Filovirus testing (sent to VRL with NYU account information)
- 6) Cocci titer (sent to Protatek)

The infant information is as follows:

Animal ID	Ear tattoo	Date of birth	Date pulled from dam	Gender	Dam ID	Number of days in nursery on February 11th, 2019 (including that day)
Z19002	K-Y	1/7/2019	1/14/2019	F	L08020	29
Z19022	L-G	1/20/2019	1/21/2019	F	Z14323	22
Z19023	L-H	1/21/2019	1/24/2019	M	L07293	19
Z19024	L-I	1/22/2019	1/22/2019	F	Z14367	21

Let me know what else you need,  
Tess

---

**From:** Jesse C. Day <jessed10@uw.edu>  
**Sent:** Wednesday, January 30, 2019 4:12 PM  
**To:** Tess House <th81@uw.edu>  
**Cc:** cmali <cmali@uw.edu>; cjmead2 <cjmead2@uw.edu>; Jim Murphy <murphyjm@uw.edu>  
**Subject:** RE: NYU infant questions

Hi Tess,

Thanks for being proactive on this, the date is certainly sneaking up on us. For the questions:

1. When the animals are moved on to the truck, you can enter a Bulk move for them to the TRUCK location in ARMS. After that, send me a list of the IDs that are going and I'll transfer them out of colony.



I usually add a note about the sale in case I need it for future reference so I can handle that part. They should be off of your census after that.

2. I need to know what screening we did for the infants specifically after they're pulled if there is any (blood tests, etc.). Also, if you can track how many days they have been in the nursery being bottle trained and awaiting shipment, we'll want to charge those per diem days.

I think that should cover it. If you have any other questions be sure to let me know and I'll do my best to answer (or find out if I don't know).

Thanks,

Jesse Day  
Administrator of Program Operations, DPR  
Washington National Primate Research Center  
(206)616-0154  
[jessed10@uw.edu](mailto:jessed10@uw.edu)

I have a new email address! Please update your contacts accordingly with the email above.

*The WaNPRC is supported by grant P51 OD010425 from the NIH Office of Research Infrastructure Programs. Please help us continue to support your research by citing our grant number in publications.*

---

**From:** Tess House <[th81@uw.edu](mailto:th81@uw.edu)>  
**Sent:** Wednesday, January 30, 2019 2:47 PM  
**To:** Jesse C. Day <[jessed10@uw.edu](mailto:jessed10@uw.edu)>  
**Cc:** cmali <[cmali@uw.edu](mailto:cmali@uw.edu)>; cjmead2 <[cjmead2@uw.edu](mailto:cjmead2@uw.edu)>; Jim Murphy <[murphyjm@uw.edu](mailto:murphyjm@uw.edu)>  
**Subject:** NYU infant questions

Hi Jesse,

I have a few questions about the NYU infants and shipment-

- 1) What information will I need to enter when the infants are moved from the colony to the truck on February 11<sup>th</sup>? I have not had to do this yet in ARMS so I'll need instructions.
- 2) What information do you need from us for purposes of charging/invoicing for the infants?

Thanks,  
Tess

Theresa (Tess) House, DVM MPH  
Supervisory Veterinarian  
Washington National Primate Research Center  
Arizona Breeding Colony  
Office phone 206.685.1842  
Mailing address- P.O. Box 20836/Mesa, AZ 85277

**From:** Patricia Jobe <pjobe@uw.edu>  
**Sent:** Wednesday, January 9, 2019 2:27 PM  
**To:** Jim Murphy  
**Subject:** Dec 2018 Invoice from Pharmgate - Need your Approval  
**Attachments:** Invoice\_77391 for AZ PP959384.pdf

Hi Jim:

Here is the December 2018 invoice from Pharmgate that I need your approval to pay.

Thank you.

Pat

**Patricia Jobe**

Fiscal Specialist

**Center for Shared Services**

**Health Sciences Administration**

Magnuson Health Sciences Center Box 357145

1959 NE Pacific ST

Seattle, WA 98195

206.685.8017 Direct

[pjobe@uw.edu](mailto:pjobe@uw.edu)

[uw\\_hs\\_css@uw.edu](mailto:uw_hs_css@uw.edu)

[www.depts.washington.edu/uwhsa](http://www.depts.washington.edu/uwhsa)

**W** UNIVERSITY of WASHINGTON



2575 University Avenue West, Suite 100  
Saint Paul MN 55114  
USA  
**Tel:** (612) 256-0930  
**Fax:** (651) 644-6831  
www.protatek.com

# INVOICE

**Bill To:**  
University of Washington- Mesa, AZ  
PO BOX 20836  
MESA AZ 85215  
USA

**INVOICE DATE** 12/31/2018  
**INVOICE NO.** 77391  
**CUSTOMER NO.** C6138 (UWPCAZ)  
**TERMS** Net 30  
**REFERENCE** PO#BPO31137

Page 1 of 1

Item Code	Description	Quantity	Price	Total
<i>COCCI/ T00237, M03312, Z17256, Z17184, Z13337, K10112, K06271, M09202</i>				
A03025	COCCI	8	\$ 25.00	\$ 200.00

Discount	\$0.00
Tax	\$0.00
<b>Total</b>	<b>\$200.00</b>

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Wednesday, January 9, 2019 2:49 PM  
**To:** cmali; Tess House  
**Cc:** Kelly L. Carbone; Jim Murphy  
**Attachments:** Arizona Breeding Colony Spring Semi-Annual.pdf

This is what I compile each semi-annuals-waiting on DNA testing approval.

I write to each facility separately with dates of receivable shipments to ensure they are able to process on the dates scheduled.

Caroline

## Arizona Breeding Colony

Spring 2019

Date Collection	Room	Animal count	Virology	DNA	Protatek	VF Bank	cbc/chem	Rads	chest/ear tattoos	Moves
2/25/2019	212/222/231	3	3		3		3	3		
2/26/2019	241/242/131	3	3		3	1	3	3		
3/4/2019	181	16	10	3	10	1			2	
3/5/2019	232	21	17	6	17	3		1	4	
3/11/2019	212	16	13	2	13	1			1	
3/12/2019	222	12	12		12	2				
3/18/2019	231	16	12	1	12	3				
3/19/2019	241	14	9	1	9			1		
3/25/2019	242	16	15	4	15	12			3	
3/26/2019	131	11	7	1	7					
4/1/2019	221	20	17	5	17	1			2 or 3	
4/2/2019	112	11	11		11					
4/8/2019	111	22	22		22					5
4/9/2019	121	23	23		23					2
4/15/2019	122	24	24		24					7
4/16/2019	171	12	11		11	9				1
4/22/2019	162/152	162 (9) 152 (4)	162 (9) 152 (4)		162 (9) 152 (4)					
4/23/2019	104	19	17	4	17			2	2	
4/29/2019	142	10	10		10	2				

All subject to change with moves

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Tuesday, December 24, 2019 11:25 AM  
**To:** Kelly L. Carbone; Jim Murphy; Jessica Toscano; Tess House; cmali; aw656  
**Subject:** Updated Pregnancy Sheet  
**Attachments:** AZ Current Pregnancies 12-24-19.xls

Updated Pregnancy- two for follow-up dates next week to be determined. That's it till next Exams

Thanks,  
Caroline

Dam Information			Potential Sire	Pregnancy Information	
Dam (links to Breeding Summary)	Alias	Current Location (links to Move Hx)		Conception Date	Due Date
<a href="#">Z09114</a>	A9W022	<a href="#">AB317A-B</a>	M03185	20/Jun/19	December 26th to January 26th
<a href="#">A12268</a>	B090607	<a href="#">AA231A-B-C</a>	F01108	04/Jul/19	23/Dec/19
<a href="#">Z14040</a>		<a href="#">AB318C-D</a>	Z08084	18/Jul/19	06/Jan/20
<a href="#">M06139</a>	GM35	<a href="#">AA232A-B-C</a>	L02276	26/Jul/19	14/Jan/20
<a href="#">Z12072</a>		<a href="#">AA241A-B-C</a>	K04170	26/Jul/19	14/Jan/20
<a href="#">Z12182</a>	A12W011	<a href="#">AB321A-B</a>	K01241	03/Aug/19	22/Jan/20
<a href="#">Z12412</a>	09	<a href="#">AB319C-D</a>	F02420	03/Aug/19	22/Jan/20
<a href="#">Z11098</a>	A11W023	<a href="#">AB317A-B</a>	M03185	10/Aug/19	29/Jan/20
<a href="#">A03194</a>	ET57	<a href="#">AA231A-B-C</a>	F01108	11/Aug/19	30/Jan/20
<a href="#">Z11392</a>	A11W087	<a href="#">AB319C-D</a>		14/Aug/19	02/Feb/20
<a href="#">Z12353</a>	371	<a href="#">AB319A-B</a>	F02420	14/Aug/19	02/Feb/20
<a href="#">Z14244</a>	A14W026	<a href="#">AB302-I1</a>	Z12214	23/Aug/19	11/Feb/20
<a href="#">R10195</a>		<a href="#">AA241A-B-C</a>	K04170	02/Sep/19	21/Feb/20
<a href="#">Z13156</a>	D-J	<a href="#">AB319C-D</a>	F02420	09/Sep/19	28/Feb/20
<a href="#">Z14374</a>	A14W052	<a href="#">AB309A-B</a>	Z12214	10/Sep/19	29/Feb/20
<a href="#">Z12333</a>	359	<a href="#">AB318C-D</a>	Z08084	12/Sep/19	02/Mar/20
<a href="#">Z14358</a>	A14W049	<a href="#">AB309A-B</a>	Z12214	18/Sep/19	08/Mar/20
<a href="#">Z14352</a>	A14W045	<a href="#">AB302-C2</a>	Z12214	19/Sep/19	09/Mar/20
<a href="#">Z13245</a>	D-Z	<a href="#">AB319C-D</a>	F02420	22/Sep/19	12/Mar/20
<a href="#">Z13304</a>	A13W031	<a href="#">AB321A-B</a>	K01241	02/Oct/19	22/Mar/20
<a href="#">L10152</a>		<a href="#">AA181A-B-C</a>	F01108	12/Oct/19	01/Apr/20
<a href="#">L11128</a>		<a href="#">AA232A-B-C</a>	L02276	14/Oct/19	03/Apr/20
<a href="#">Z14197</a>	A14W020	<a href="#">AB320A-B</a>	Z11389	17/Oct/19	06/Apr/20
<a href="#">L11035</a>		<a href="#">AA222A-B-C</a>	K05143	21/Oct/19	10/Apr/20
<a href="#">Z12028</a>	B-E	<a href="#">AA241A-B-C</a>	K04170	22/Oct/19	11/Apr/20

<b>Comments</b>
no pregnancy Hx from NIRC
2014, 2015, 2016, 2017 and 2018-viable births
2018 viable birth
viable birth 2014, 2015, 2017 and 2018
2016 viable birth, 2017 stillborn full term and early 2018 dystocia full term fall 2018 viable birth
2018 viable birth
2018 viable birth
2017 viable birth
2018- viable birth, 6/17 FD trauma, 9/16 spontaneous death, 9/15 and 4/14 viable births-10/2019 early abort 1st trimester
viable birth 2017, non viable spontaneous death 6/2019
2018, 2019 viable births
2019 viable birth
2016 and 2017 viable births
2018 viable birth
Hx from NIRC first time pregnancy
2019 viable birth July, then 1 month old spontaneous death, 2018 viable birth
no pregnancy Hx from NIRC
2019 viable birth
viable birth 2018
Hx from NIRC first time pregnancy-CJM
2015 viable birth, 2016 early year FD 1 month old (Pathology pathogens), later 2016 and 2018 viable birth
2015, 2016, 2018 Viable births
2018 viable birth
2015 and 2016 viable birth-(2015 birth currently VF Tx), 2019 viable birth
2016 nonviable birth, 2017 viable birth, 2018 non-viable breech/dystocia full-term, 2019 stillborn-VF Tx



<u>K06231</u>	GR30	<u>AA131A-B-C</u>	A10229	03/Nov/19	23/Apr/20
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viable births 2013, 2016, 2017,2018 and 2019

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Friday, January 11, 2019 12:26 PM  
**To:** Kelly L. Carbone; Jim Murphy; Jennifer A. Falbo; cmali; Tess House  
**Subject:** Week of January 14th 2019

Jennifer print for weekend, need cages ready for Monday

**Monday January 14th**

142: Z13319 BW

104: Z17184 follow-up fecal swab

222: L08020/Z19002-dam recovery in 142 and infant Isolette- full exam on both/bloodwork and fecal collection dam

112: Z14320/Z19005-dam recovery in 142 and infant Isolette- full exam on both/bloodwork and fecal collection dam

142: Z14345 suture removal, so can intro back to group Tuesday

104: Z14141 check infant

Upstairs:

1 metal jump boxes

Downstairs:

2 squeeze cages

3 metal jump boxes

**Tuesday January 15th**

232: (2-4) juvenile chest tattoo

104: Z16005- follow-up cocci titer

142: M04326 intro back into 131

Upstairs:

2 squeeze cages

3 metal jump boxes to recovery animals and jump out

**Wednesday January 16th**

104: Z17256 pending fecal result return to group 111

ATs: 121/122 BWs

**Thursday January 17th**

142: M03312 follow-up fecal swab

**Friday January 11th**

104: case BWs

142: case BWs

122: Z16068 follow-up cheek pouches

171: Z14340 BW

181: ID14 BW

Items needed catch boxes

**From:** Patricia Jobe <pjobe@uw.edu>  
**Sent:** Friday, February 8, 2019 8:47 AM  
**To:** Jim Murphy  
**Subject:** Need Approval to pay February invoice on PP959384  
**Attachments:** Invoice\_77635.pdf

Hi Jim:

Here is the latest invoice from Pharmgate that I will need your approval to pay.

Thank you!

Pat

**Patricia Jobe**

Fiscal Specialist

**Center for Shared Services**

**Health Sciences Administration**

Magnuson Health Sciences Center Box 357145

1959 NE Pacific ST

Seattle, WA 98195

206.685.8017 Direct

[pjobe@uw.edu](mailto:pjobe@uw.edu)

[uw\\_hs\\_css@uw.edu](mailto:uw_hs_css@uw.edu)

[www.depts.washington.edu/uwhsa](http://www.depts.washington.edu/uwhsa)

**W** UNIVERSITY of WASHINGTON



2575 University Avenue West, Suite 100  
Saint Paul MN 55114  
USA  
**Tel:** (612) 256-0930  
**Fax:** (651) 644-6831  
www.protatek.com

# INVOICE

**Bill To:**  
University of Washington- Mesa, AZ  
PO BOX 20836  
MESA AZ 85215  
USA

**INVOICE DATE** 02/07/2019  
**INVOICE NO.** 77635  
**CUSTOMER NO.** C6138 (UWPCAZ)  
**TERMS** Net 30  
**REFERENCE** PO#BPO31137

Page 1 of 1

Item Code	Description	Quantity	Price	Total
<i>COCCI/ Z14141, Z13319, L08020, Z16005, Z17072, Z16004, Z14323, L07293, Z14367</i>				
A03025	COCCI	9	\$ 25.00	\$ 225.00

Discount	\$0.00
Tax	\$0.00
<b>Total</b>	<b>\$225.00</b>

**From:** cmali <cmali@uw.edu>  
**Sent:** Tuesday, February 12, 2019 10:13 AM  
**To:** Tess House; Jim Murphy; cjmead2; Kelly L. Carbone  
**Cc:** Sally Thompson-Iritani; Charlotte E. Hotchkiss  
**Subject:** AZ VF Distribution  
**Attachments:** Cocci.xls

Hi Team,

Here is the data that I pulled together for 2018 VF cases. Please see the attached document and tabs across the bottom.

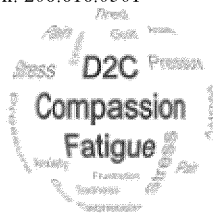
The difference between new VF cases in the upstairs and downstairs enclosures looks like a big difference on the chart but in reality it is only a difference of 2 animals...

I don't know how useful this data is without doing statistics to see how significant the differences are but here it is.

Best,  
Dr M

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian  
Washington National Primate Research Center/University of Washington  
Arizona Breeding Colony  
PO Box 20836, Mesa, AZ 85277  
Ph: 206.616.0501



*Dare 2 Care...* | explore UW's Compassion Fatigue Program

Animal	Sx	Result Date	Test Description
A03194	F	3/20/2018	IgG Titer Result,IgG Titer Value
A12255	F	1/4/2018	IgG Titer Result,IgG Titer Value
A12255	F	2/13/2018	IgG Titer Result,IgG Titer Value
A12262	F	9/24/2018	IgG Titer Result,IgG Titer Value
A12262	F	11/6/2018	IgG Titer Result,IgG Titer Value
A12264	F	3/27/2018	IgG Titer Result,IgG Titer Value
A12269	F	9/24/2018	IgG Titer Result,IgG Titer Value
F08047	F	2/13/2018	IgG Titer Result
F08047	F	2/13/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
F08047	F	4/30/2018	IgG Titer Result,IgG Titer Value
F08132	F	9/10/2018	IgG Titer Result,IgG Titer Value
K06192	F	10/1/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
K06192	F	11/13/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
K06192	F	12/11/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
K06271	F	4/2/2018	IgG Titer Result,IgG Titer Value
K06271	F	6/18/2018	IgG Titer Result,IgG Titer Value
K06271	F	9/25/2018	IgG Titer Result,IgG Titer Value
K06271	F	12/26/2018	IgG Titer Result,IgG Titer Value
K07291	F	4/9/2018	IgG Titer Result,IgG Titer Value
K10112	F	10/2/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
K10112	F	11/15/2018	IgG Titer Result,IgG Titer Value
K10112	F	12/26/2018	IgG Titer Result,IgG Titer Value
K11143	F	4/9/2018	IgG Titer Result,IgG Titer Value
K11143	F	10/8/2018	IgG Titer Result,IgG Titer Value
L02276	M	3/2/2018	IgG Titer Result,IgG Titer Value
L02276	M	8/28/2018	IgG Titer Result,IgG Titer Value
L06156	F	3/13/2018	IgG Titer Result,IgG Titer Value
L06156	F	9/10/2018	IgG Titer Result,IgG Titer Value
L10152	F	3/12/2018	IgG Titer Result,IgG Titer Value
L10152	F	9/10/2018	IgG Titer Result,IgG Titer Value
M10123	F	2/13/2018	IgG Titer Result,IgG Titer Value
M10123	F	5/9/2018	IgG Titer Result,IgG Titer Value
M10123	F	8/14/2018	IgG Titer Result,IgG Titer Value
M10123	F	12/17/2018	IgG Titer Result,IgG Titer Value
M11051	F	4/9/2018	IgG Titer Result,IgG Titer Value
M11051	F	10/8/2018	IgG Titer Result,IgG Titer Value
R09036	F	10/8/2018	IgG Titer Result,IgG Titer Value
R10113	F	3/26/2018	IgG Titer Result,IgG Titer Value
R10113	F	10/9/2018	IgG Titer Result,IgG Titer Value
R10151	F	3/26/2018	IgG Titer Result,IgG Titer Value
R10156	F	3/27/2018	IgG Titer Value
R10156	F	5/22/2018	IgG Titer Result,IgG Titer Value
R10156	F	7/30/2018	IgG Titer Value



Result
positive (+),1:2
positive (+),1:2
positive (+),1:1
positive (+),1:4
positive (+),1:4
positive (+),1:2
positive (+),1:2
positive (+)
positive (+),1:4,positive (+),1:1
positive (+),1:2
positive (+),1:2
positive (+),1:2,positive (+),1:2
positive (+),1:16,positive (+),1:4
positive (+),1:16,positive (+),1:4
positive (+),1:8
positive (+),1:2
positive (+),1:4
positive (+),1:2
positive (+),1:2
positive (+),1:64,positive (+),1:2
positive (+),1:64
positive (+),1:16
positive (+),1:2
positive (+),1:2
positive (+),1:2
positive (+),1:2
positive (+),1:2
positive (+),1:2
positive (+),1:2
positive (+),1:2
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positive (+),1:1
positive (+),1:1
positive (+),1:1
positive (+),1:1
positive (+),1:2
positive (+),1:8
positive (+),1:4
positive (+),1:2
positive (+),1:4
positive (+),1:2
1:4
positive (+),1:8
1:4

R10156	F	9/18/2018	IgG Titer Result,IgG Titer Value
R11037	F	3/13/2018	IgG Titer Result,IgG Titer Value
R11037	F	10/8/2018	IgG Titer Result,IgG Titer Value
S10114	F	4/2/2018	IgG Titer Result,IgG Titer Value
S10114	F	9/25/2018	IgG Titer Result,IgG Titer Value
S10185	F	3/13/2018	IgG Titer Result,IgG Titer Value
T06226	F	3/13/2018	IgG Titer Result,IgG Titer Value
T11135	F	4/9/2018	IgG Titer Result,IgG Titer Value
T11135	F	9/7/2018	IgG Titer Result,IgG Titer Value
Z07023	M	12/17/2018	IgG Titer Result,IgG Titer Value
Z11338	F	9/24/2018	IgG Titer Result,IgG Titer Value
Z12028	F	10/1/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z12028	F	11/13/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z12028	F	12/11/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z12342	F	3/12/2018	IgG Titer Result,IgG Titer Value
Z12342	F	9/10/2018	IgG Titer Result,IgG Titer Value
Z13022	F	2/13/2018	IgG Titer Result
Z13067	F	4/16/2018	IgG Titer Result,IgG Titer Value
Z13067	F	5/23/2018	IgG Titer Result,IgG Titer Value
Z13067	F	10/16/2018	IgG Titer Result,IgG Titer Value
Z13082	F	3/20/2018	IgG Titer Result,IgG Titer Value
Z13082	F	9/11/2018	IgG Titer Result,IgG Titer Value
Z13093	M	6/5/2018	IgG Titer Result,IgG Titer Value
Z13093	M	12/17/2018	IgG Titer Result,IgG Titer Value
Z13292	F	1/23/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z13292	F	4/16/2018	IgG Titer Result,IgG Titer Value
Z13292	F	6/4/2018	IgG Titer Result,IgG Titer Value
Z13292	F	10/16/2018	IgG Titer Result,IgG Titer Value
Z13337	F	12/24/2018	IgG Titer Result,IgG Titer Value
Z14001	F	1/22/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z14001	F	4/16/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z14001	F	6/4/2018	IgG Titer Result,IgG Titer Value
Z14001	F	10/29/2018	IgG Titer Result,IgG Titer Value
Z14027	M	10/22/2018	IgG Titer Result,IgG Titer Value
Z14130	F	1/30/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z14130	F	4/16/2018	IgG Titer Result,IgG Titer Value
Z14130	F	6/4/2018	IgG Titer Result,IgG Titer Value
Z14130	F	10/22/2018	IgG Titer Result,IgG Titer Value
Z14141	F	4/16/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z14141	F	5/23/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z14141	F	7/30/2018	IgG Titer Result,IgG Titer Value

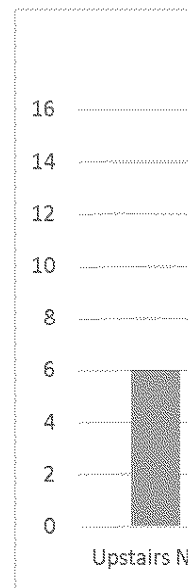
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Z14323	F	7/31/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z14323	F	10/16/2018	IgG Titer Result,IgG Titer Value
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Z16341	F	10/15/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
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Z16358	M	10/15/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z16358	M	11/26/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
Z17135	F	10/15/2018	IgG Titer Result,IgG Titer Value,IgM Titer Result,IgM Titer Value
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Z17137	M	10/15/2018	IgG Titer Result,IgG Titer Value
Z17137	M	11/26/2018	IgG Titer Result,IgG Titer Value

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Animal	Location
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Z17137	111
Z16341*	111
Z16358*	111
Z13067	112
Z13292	112
Z14141*	112
Z13337**	112
Z14323**	112
Z16005	122
Z14333	162
Z14001	171
Z14027	171
Z14130	171
F08132	181
L06156	181
L10152	181
Z12342	181
A12264	212
R10156	212
R10113	221
R10151	221
A12262	222
A12269	222
Z11338	222
S10114	231
S10185	231
A03194	232
K06271	232
K10112	232
Z13082	232
K06192	241
Z12028	241
K07291	242
L02276	242
M11051	242
R09036	242
R11037	242
K11143**	242

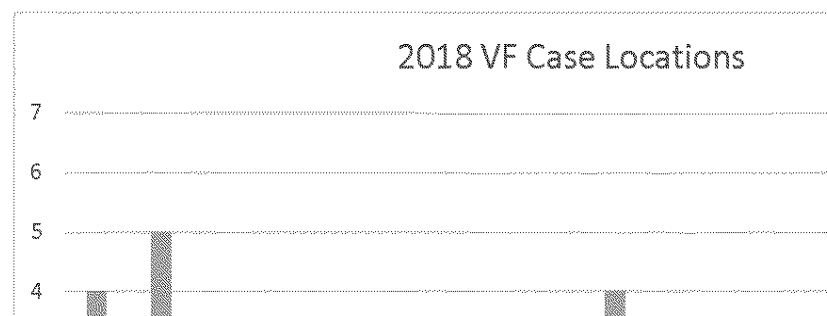
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Upstairs Old	15
Downstairs New	8
Downstairs Old	2
Annex New	1
Annex Old	7



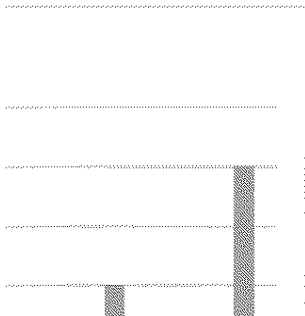
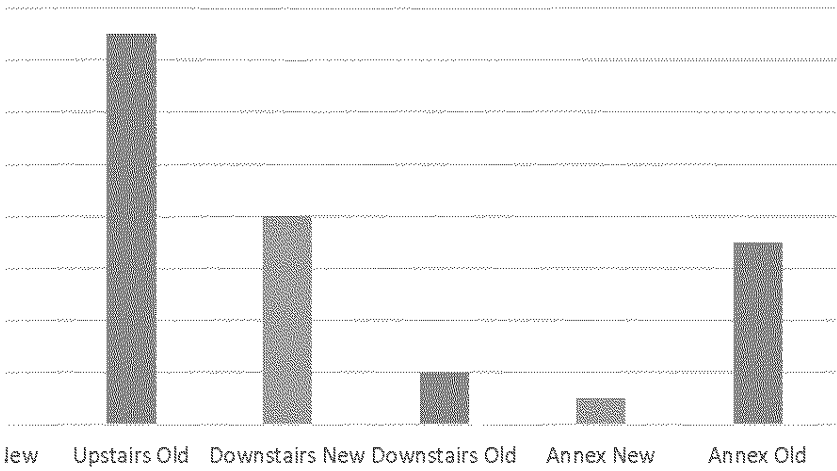
\*= 104

\*\*=142

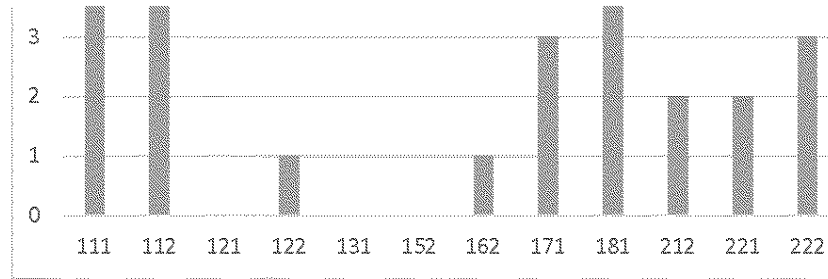
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181	4



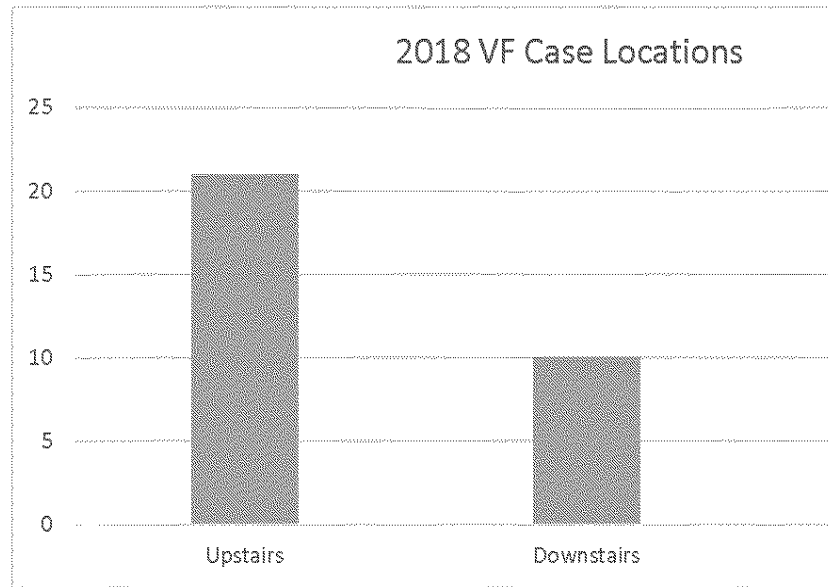
2018 VF Case Locations



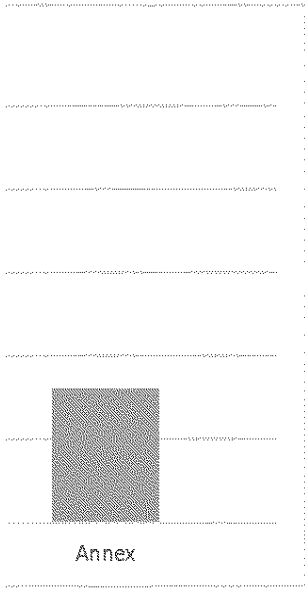
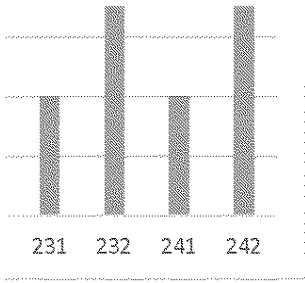
212	2
221	2
222	3
231	2
232	4
241	2
242	6



Upstairs	21
Downstairs	10
Annex	8







F08047	Seattle
M10123	Seattle
Z07023	Seattle
Z13022	Seattle
Z13093	Seattle
Z14251	Seattle

T06226	Euth
T11135	Euth
Z16027	EUTH

**From:** Charlotte E. Hotchkiss <chotchki@uw.edu>  
**Sent:** Wednesday, February 13, 2019 9:33 AM  
**To:** cmali; Tess House; Jim Murphy; cjmead2; Kelly L. Carbone  
**Cc:** Sally Thompson-Iritani  
**Subject:** RE: AZ VF Distribution

It looks like there isn't much difference in new cases by location, but there was a big difference in old cases, with a lot more upstairs. Is that because there are more breeding groups with older animals upstairs while there are more juveniles downstairs?

Looking at this, it seems there's no difference in the incidence of new cases between upstairs and downstairs. This could either be because location and amount of outdoor access don't make a difference, or because the limited outdoor access downstairs offsets the higher risk of being lower. I don't know if there's any way to tell which of those is more accurate.

Charlotte

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**From:** cmali <cmali@uw.edu>  
**Sent:** Tuesday, February 12, 2019 10:13 AM  
**To:** Tess House <th81@uw.edu>; Jim Murphy <murphyjm@uw.edu>; cjmead2 <cjmead2@uw.edu>; Kelly L. Carbone <kellyc29@uw.edu>  
**Cc:** Sally Thompson-Iritani <sti2@uw.edu>; Charlotte E. Hotchkiss <chotchki@uw.edu>  
**Subject:** AZ VF Distribution

Hi Team,

Here is the data that I pulled together for 2018 VF cases. Please see the attached document and tabs across the bottom.

The difference between new VF cases in the upstairs and downstairs enclosures looks like a big difference on the chart but in reality it is only a difference of 2 animals...

I don't know how useful this data is without doing statistics to see how significant the differences are but here it is.

Best,  
Dr M

**Carolyn Malinowski, MS, DVM, CMAR, CPIA**

Senior Veterinarian  
Washington National Primate Research Center/University of Washington  
Arizona Breeding Colony  
PO Box 20836, Mesa, AZ 85277  
Ph: 206.616.0501



*Dare 2 Care...* | explore UW's Compassion Fatigue Program

**From:** cjmead2 <cjmead2@uw.edu>  
**Sent:** Thursday, February 14, 2019 6:15 AM  
**To:** Jim Murphy; Kelly L. Carbone; Tess House; cmali  
**Attachments:** 2-12-19 AZ Current Pregnancies.xls

Updated Pregnancy Sheet

Dam Information				
Dam (links to Breeding Summary)	Alias	Current Location (links to Move Hx)	Potential Sire	Due Date
<a href="#">M01119</a>	DI36	<a href="#">AA222A-B-C</a>	K05143	08/Feb/19
<a href="#">Z15079</a>	L-J	<a href="#">AA171A-B-C</a>	Z14027	09/Feb/19
<a href="#">A12269</a>	BB890	<a href="#">AA222A-B-C</a>	K05143	11/Feb/19
<a href="#">M10190</a>		<a href="#">AA131A-B-C</a>	A10229	11/Feb/19
<a href="#">Z14335</a>	J-D	<a href="#">AA171A-B-C</a>	Z14027	19/Feb/19
<a href="#">Z14257</a>	H-V	<a href="#">AA112A-B-C</a>	Z13090	25/Feb/19
<a href="#">Z13292</a>	E-L	<a href="#">AA112A-B-C</a>	Z13090	22/Feb/19
<a href="#">Z14130</a>	G-I	<a href="#">AA171A-B-C</a>	Z14027	28/Feb/19
<a href="#">Z14331</a>	J-A	<a href="#">AA112A-B-C</a>	Z13090	03/Mar/19
<a href="#">Z14145</a>	G-U	<a href="#">AA171A-B-C</a>	Z14027	04/Mar/19
<a href="#">L03132</a>	EI33	<a href="#">AA181A-B-C</a>	Z14020	07/Mar/19
<a href="#">L11035</a>		<a href="#">AA222A-B-C</a>	K05143	10/Mar/19
<a href="#">S10114</a>		<a href="#">AA231A-B-C</a>	F01108	21/Mar/19
<a href="#">L06171</a>	GN90	<a href="#">AA222A-B-C</a>	K05143	24/Mar/19
<a href="#">J03371</a>	EV87	<a href="#">AA222A-B-C</a>	K05143	06/Apr/19
<a href="#">M03312</a>	ET71	<a href="#">AA142-F2</a>	L02276	20/Apr/19
<a href="#">L05311</a>	GF62	<a href="#">AA142-F1</a>	L02276	21/Apr/19
<a href="#">T01112</a>	DH46	<a href="#">AA142-C2</a>	K04170	24/Apr/19
<a href="#">K01225</a>	DL30	<a href="#">AA242A-B-C</a>	L02276	26/Apr/19

Comments
2013, 2014, 2015, 2017 viable births
first time pregnancy, on VF Tx
2017, 2015 and 2014 viable births-new VF case Fall 2018 on Tx
2016, 2017 viable births and 2018 C-section large infant
first time pregnancy, VF Hx recently taken off medication
due Feb 4th to Feb 22nd; first time pregnancy
first time pregnancy and VF Tx
first time pregnancy, on VF Tx
due Feb 18th to March 3rd; first time pregnancy
first time pregnancy, VF Hx recently taken off medication
2013 non viable fetus, 2014, 2015, 2016 viable births, Hx valley fever, fall 2018 recently stopped Tx due to 1yr negative titers. 2014 birth is on valley fever Tx.
2015 and 2016 viable birth-(2015 birth currently VF Tx)
2016 and 2017 viable birth, VF Tx, enlarged liver
2014 viable birth ( 1month old rejected infant hand raise-2yrs old endpoint failure to thrive), 2015 viable birth, 2016 viable birth
new due date 3/17/19, 2014, 2015 and 2017 viable births
new due date 4/7-4/20; 2017 viable birth, 2016 viable birth (1 month poor health endpoint), 2014, 2015 viable birth, 2012 viable birth (2 mo poor health endpoint)- 6/25/18 41 days pregnant pulled for chronic wt loss, VF Tx since 2016-fetal loss not recovered 10/2018
2013, 2016 and 2017 viable births
2014 & 2017 viable birth, 2016 non viable birth
2013 viable birth, 2014 and 2016 non-viable births VF Tx since 2015

<u>A12262</u>	B09021 1	<u>AA222A-B-C</u>	K05143	27/Apr/19
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3/6 to 4/27; new valley fever case 9/2018 on Tx, 2014, 2016 viable birth

**From:** Charlotte E. Hotchkiss <[chotchki@uw.edu](mailto:chotchki@uw.edu)>  
**Sent:** Monday, February 18, 2019 3:13 PM  
**To:** Gail R Ellingson; Sally Thompson-Iritani; Michael J. Mustari  
**Cc:** Courtney A. Miller; Jim Murphy; Tess House; cmali  
**Subject:** Arizona grant  
**Attachments:** C06\_Arizona Project Narrative 2-18-19.docx

Here's the latest draft of the Arizona C06, and it's also in Teams. I did my best to incorporate Gail's stuff. I think it would be good to add more detail from Arizona, so I'm copying those folks. If you don't have time to read all of it, the problem areas are highlighted in blue and/or have comments in the margin. I don't know how to describe the automatic watering, light timers, or environmental monitoring; these are all things that need to be included for an animal facility.

A nearly-final version has to go to OSP on 2/25/19. I probably won't look at this again until after the I-wing one goes in on 2/21/19, but it would be lovely if I didn't have to spend a lot of time on it over the weekend. For a change.

Charlotte

Charlotte E. Hotchkiss, DVM, MS, PhD, DACLAM  
Washington National Primate Research Center  
University of Washington  
Box 357330  
Seattle, WA 98195-7330  
Office phone: 206-685-2881  
Cell phone: 206-496-4471  
Pager: 206-540-6615  
[chotchki@uw.edu](mailto:chotchki@uw.edu)  
Work hours 8-5 M-F

PROJECT NARRATIVE

Overview

The overarching purpose of this proposal is to enhance the breeding program for our specific-pathogen free (SPF) colony of pigtail macaques (*Macaca nemestrina*). These animals possess unique immunological characteristics that make them an invaluable experimental model, particularly in the study of AIDS pathogenesis, immunology and vaccine development. The Washington National Primate Research Center (WaNPRC) manages the largest domestic breeding colony of specific pathogen free (SPF) *M. nemestrina* for use in AIDS-related research. This colony is currently housed in two locations, the Arizona Breeding Colony (ABC) in Mesa, AZ, and at the New Iberia Research Center (NIRC) in New Iberia, LA. ABC is directly managed by the WaNPRC; care for the animals at NIRC is provided through a memorandum of understanding. In the past, the breeding colony was maintained in two locations partially to provide backup animals in the event of a disaster. However, now that the U42-supported *M. nemestrina* colony at Johns Hopkins University has expanded, that requirement no longer applies. As of January 2019 our entire breeding colony at both locations is SPF after the completion of SPF derivation at NIRC and with no difference in SPF status there is no reason to keep the animals separate. Therefore, our intent is to consolidate our breeding colony at the ABC location.

At our ABC location we have been successfully breeding *M. nemestrina* in harem groups in indoor-outdoor compounds since 2013. We quickly reached full capacity of 250-300 animals in the original building on site, and developed a plan for expansion. Our long-range plan is to expand the Arizona facilities to consolidate the majority of our *M. nemestrina* colony for increased efficiencies, direct WANPRC oversight and to achieve greater financial economies of scale. Construction of the first new building is underway with an expected completion date of mid-May 2019. This building will hold more than half of the animals currently housed at NIRC, but does not have the capacity for relocation of the entire colony. We are requesting funding to construct a second new building at the ABC using essentially the same design of the building currently under construction.

One challenge we have had at ABC is exposure to *Coccidioides immitis*, a naturally occurring saprophytic fungus that is contracted by inhalation of spores and is the causative agent of Valley Fever in mammalian species. As with other infectious diseases, *M. nemestrina* has proven highly susceptible. We have learned how to care for these animals to minimize morbidity and mortality, but this environmental infection is still a confounding factor in research projects. HEPA filtration is effective at removing the infectious spores and protecting the colony; therefore, the expansion buildings consist entirely of indoor housing with HEPA-filtered air.

Now that the first expansion building is nearly complete, the design for building #2 is essentially complete, with only a few minor modifications based on lessons learned. We have actual costs and experience on what is required for this project to be successful and finished on time. The building is 50' x 120' (6,000 gross sq. ft.) and will stand as a fully supported housing facility. Animal transport when needed to the main clinic or surgery at the original compound facility is already incorporated in our overall plan. The increased housing capacity afforded by this new construction will be approximately 250-300 animals and will allow for final consolidation of our *M. nemestrina* colony. The location of building #2 is already defined in the lease with a current option to meet the 20-year usage requirement.

The management of the project will be done in conjunction with the University of Washington Real Estate Office, Salt River Pima Maricopa Indian Community (SRPMIC), assembled design team including architectural and engineering with expertise in these specific types of facilities. Key Personnel listed below are responsible for oversight of design and administration. Project schedules will be reported using project management software to ensure conformity with grant award design review requirements.

Consolidation of the breeding colony at one location will allow for improved genetic management of the colony, decreasing the risk of inbreeding and genetic drift, providing a more consistent animal model for HIV/AIDS-related research activities.

Commented [ST1]: Can we look at this number and make sure that we think it is actually feasible?

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### Scientific Justification

The goal of the proposed project is to consolidate our specific-pathogen free (SPF) breeding colony of pigtail macaques (*Macaca nemestrina*) at the Arizona Breeding Colony (ABC) of the Washington National Primate Research Center (WaNPRC). The overarching objective of our efforts is to provide a reliable and essential resource for NIH-supported investigators both inside and outside the WaNPRC.

Since the late 1990's, the WaNPRC has maintained the *M. nemestrina* breeding colony at contracted facilities not managed directly by the WaNPRC. While these arrangements were productive overall, they were not efficient for optimal agility in genetic management and pathogen control. Therefore, the WaNPRC worked to identify a facility which could be directly managed but was more affordable than could be found in or near Seattle. To accomplish this we established the WaNPRC Arizona Breeding Colony (ABC). The WaNPRC entered a 19 year term, 10 year option lease (February 16, 2012) for a facility in Mesa, Arizona. This WaNPRC breeding facility provides indoor-outdoor compound housing and support facilities on 21 acres of Tribal Land belonging to the Salt River Pima-Maricopa Indian Community (SRPMIC). The ABC is part of the University of Washington's animal program and is fully staffed by University of Washington (WaNPRC) employees, with one of the veterinarians acting as a member of the University of Washington IACUC.

With the exception of a small timed-mating colony in Seattle and juvenile animals being held for future assignments, the WaNPRC SPF *M. nemestrina* breeding colony is housed at two locations. The current ABC facility is full, housing 293 animals. The remainder of the colony, consisting of 381 animals, is housed at the New Iberia Research Center (NIRC) in New Iberia, LA which is managed through a memorandum of understanding between the WaNPRC and NIRC. Both colonies are SPF for tuberculosis, SIV, STLV, SRV, and MCHV (B-virus).

Both offsite colonies are producing SPF infants. However, colony production has been restricted in 2017 and 2018 via a decrease in the number of females in breeding situations while animals are being screened for sale. At the beginning of the 4<sup>th</sup> quarter, there were 119 adult females at ABC, but only 71 were in active breeding situations. Similarly, at NIRC there were 208 adult females, but only 98 were in breeding situations. By the end of the quarter there were 87 females at NIRC and 76 females at ABC actively breeding.

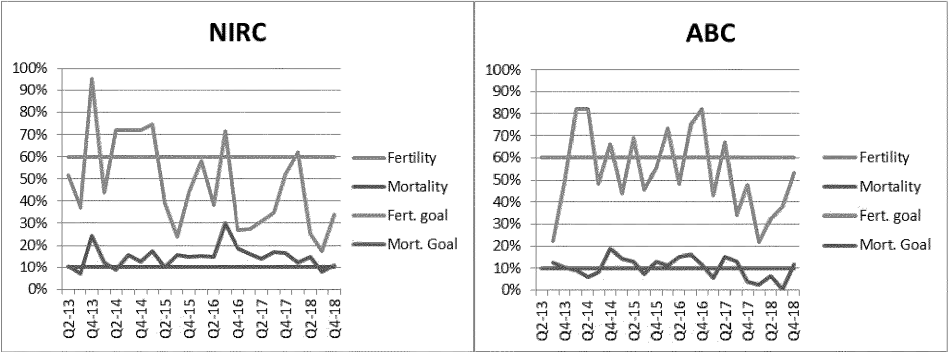
2019 Initial Census	Colony size	Juvenile replacements	Offspring < 1 yr	Breeding males	Breeding females	Adult breeding animals
ABC MN	281	103	40	15	123	138
NIRC MN	432	188	57	17	170	187
Total MN	713	291	97	32	293	325

2018 Year (average colony size)	Colony size	Juvenile replacements	Offspring < 1 yr	Breeding males	Breeding females	Adult breeding animals	Colony production
ABC MN	278	102	45	12	119	131	43
NIRC MN	500	188	74	30	208	238	73
Total MN	777	290	119	42	327	369	116

The following graphs compare the two facilities. Note that these graphs use the total number adult females as a denominator for productivity; when only females in breeding situations are included current productivity is 84% at ABC and 69% at NIRC. However, these graphs do show that fertility appears higher during the winter at NIRC because many animals are only in breeding situations when they are outdoors in the summer. It is

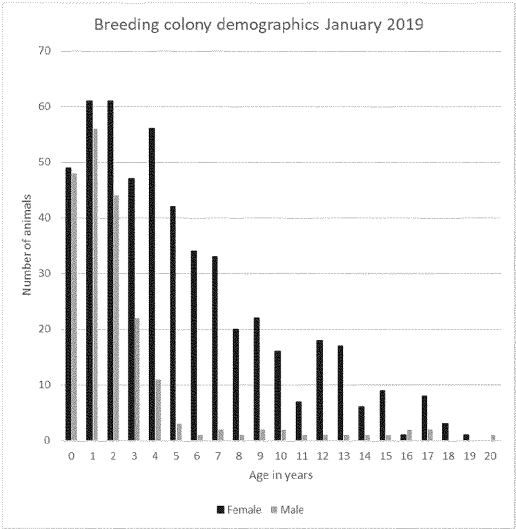
also clear that culling/mortality is lower at ABC. We believe that is due to more proactive clinical management by WaNPRC staff who are experienced with *M. nemestrina* and extremely committed to care of these animals.

Figure X: Fertility and Mortality by quarter



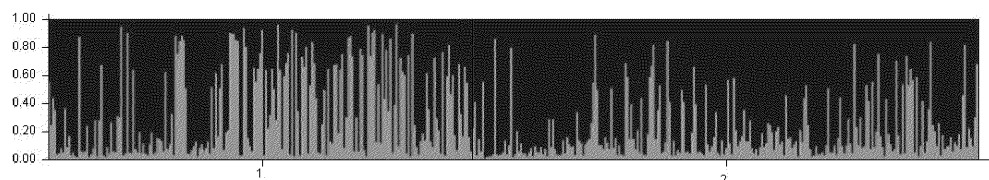
The overall demographics of the breeding colony show that there are large number of juvenile females that will enter the breeding colony in the next few years and an adequate number of juvenile males available for research assignment and replacement breeders. The number of infants is lower than other cohorts, due to the recent restriction of breeding. Our goal for the future is to increase production; the goal will be facilitated if this proposal is successful and we are able to proceed with additional construction.

Figure X: Demographics of the WaNPRC *M. nemestrina* breeding colony at ABC and NIRC by age and sex.



One disadvantage of maintaining two separate breeding colonies is the risk of genetic drift. Genotypic microsatellite analysis of animals at the two sites shows that while there is substantial evidence of genetic overlap between the two colonies, they are not genetically homogenous. As shown in figure X, there are clearly more “green” genotypes at ABC and more “red” genotypes at NIRC.

Figure X. Structure analysis of ABC and NIRC breeding colonies based on 25 microsatellite loci. Population 1 = 211 animals at ABC; population 2 = 252 animals at NIRC.



#### History of AIDS research at the WaNPRC

The Washington National Primate Research Center (WaNPRC) has been actively involved in AIDS-related research using simian immunodeficiency virus (SIV) and its derivatives in nonhuman primates (NHP) to model HIV infection in humans for more than 25 years.<sup>1</sup> Over the intervening years, significant progress has been made in the understanding of lentivirus infection and immune response based on experiments performed at the WaNPRC. Although the rhesus macaque, *Macaca mulatta*, is currently the most heavily used species for AIDS-related studies, significant and increasing numbers of *Macaca nemestrina* (pigtail macaques) are also being used for studies at the WaNPRC and other institutions.<sup>2-31</sup> Importantly, *M. nemestrina* at the WaNPRC are more genetically diverse than captive *M. mulatta*,<sup>32</sup> perhaps related to the 1978 moratorium on exportation of *M. mulatta* from India. This genetic diversity increases their utility in identifying genetic factors that affect susceptibility to infection to a variety of pathogens, including lentiviruses (HIV, SIV, SHIV).<sup>33-39</sup>

Investigators at the WaNPRC have received extensive NIH and foundation-based external funding for evaluation of vaccines and therapeutic agents in addition to support for basic AIDS-related research (Table 3). Four expanding areas of AIDS-related research involve investigation of the role of the mucosal barrier in lentivirus infection, pathogenesis of lentiviral disease, new strategies for vaccine development, and strategies to eliminate lentiviruses from AIDS "sanctuaries."

#### Role of the mucosal barrier in HIV infection

HIV is commonly transmitted through mucosal barriers, primarily the vaginal or rectal mucosa. These barriers are complex biological systems, consisting of mechanical barriers which can be altered by hormonal, inflammatory, and other physiological processes; immunological barriers which are comprised of innate and acquired immune components; and a microbiome of bacterial flora which interacts with the mucosal surface and can inhibit or assist entry of viral pathogens. Although topical application of microbicides at the mucosal surface would appear to be an appropriate strategy for the prevention of HIV transmission, only the coitally-linked use of tenofovir gel has demonstrated moderate effectiveness.<sup>40</sup> Therefore, additional research is needed to gain a better understanding of these mucosal barriers. *M. nemestrina* also have a less keratinized vaginal epithelium, more appropriate vaginal size, and a year round menstrual cycle. These factors make them more attractive than other macaque species for evaluating vaginal exposure to lentiviruses, microbicides and pre-exposure prophylaxis (PREP) and impacts of lentiviral infection on the vaginal microbiome.<sup>20,21,23,27,28,41-49</sup>

The composition of the mucosal microbiome present in the vagina and intestinal tract also affect HIV transmission.<sup>50,51</sup> Normal flora can competitively or physically inhibit pathogen transmission, but abnormal flora can induce pro-inflammatory cytokine secretion and disrupt mucosal barrier function. The vaginal flora of *M. nemestrina* is similar to that of humans, making them an ideal animal model for this type of research.<sup>52</sup> These research projects will provide insight into how individuals become infected as well as how the disease progresses, and will therefore help guide both treatment and prevention strategies for AIDS.

Investigators at the WaNPRC are also working to increase the effectiveness of topical microbicides for the prevention of HIV transmission. Dr. Patton's laboratory has developed an extensive program for the evaluation of topical microbicides, including antiretroviral compounds.<sup>53-63</sup> Dr. Woodrow has developed novel methods for drug and vaccine delivery and is investigating a nanoparticulated microbicide for vaginal use.<sup>64-67</sup> While initial microbicide work can be performed in simpler biological systems and other animal models, it is necessary to use the NHP model for the final evaluation, due to the similarities to humans in anatomical structure and

reproductive considerations such as the hormonal and vaginal changes that occur in a menstrual cycle as opposed to an estrus cycle. The results from these microbicide research projects can be directly translated to clinical applications.

#### *Pathogenesis of lentiviral disease*

*M. nemestrina* demonstrate a high susceptibility to human infectious disease pathogens as well as macaque optimized lentiviruses.<sup>45,58,60,68-75</sup> Numerous studies have demonstrated susceptibility to infection and disease progression and validated models exist for a number of lentiviruses including several simian immunodeficiency viruses (SIVs), human immunodeficiency virus type II (HIV-2), and a variety of simian-human chimeric immunodeficiency viruses (SHIVs).<sup>10,14,58-60</sup> *M. nemestrina* is the only macaque species to be successfully infected with HIV-1.<sup>76</sup> Comparison of pathogenicity in different nonhuman primate species provides valuable information on host factors involved in resistance or susceptibility to infection and disease.<sup>5,77-81</sup> SHIV-infected *M. nemestrina* were more likely than rhesus macaques to develop persistent viremia and peripheral blood CD4+ T-cell depletion.<sup>82</sup> TRIM5 $\alpha$ , mediates a post-entry block in many Old World primates, including rhesus. In contrast, *M. nemestrina* express novel isoforms of TRIM5 $\alpha$  fused to CypA that fail to restrict HIV-1 replication, similar to humans.<sup>34,83</sup> The TRIM5 $\alpha$ /CypA fusion protein, which is generally considered unable to restrict HIV infection, is the standard isoform in *M. nemestrina*, but is rare in other macaque species.<sup>84</sup> This and other factors make it possible to establish experimental infections in *M. nemestrina* with HIV-1 strains minimally-modified by replacement of the HIV-1 vif gene with that from SIVmne (HSIV-vif).<sup>85</sup> This ability to establish replicative infection makes *M. nemestrina* invaluable for the investigation of innate immune factors responsible for resistance to HIV infection.

In addition to genetic factors that may contribute to their usefulness for HIV/AIDS research, *M. nemestrina* also exhibit enhanced pathogenicity to primate lentivirus infection.<sup>76,86-89</sup> The basis of this enhanced sensitivity has not yet been clearly defined, but is likely to involve gut microbiome, decreased gut mucosa integrity, increased microbial translocation and immune activation. In contrast, the DeltaGY strain of SIV causes microbial translocation and rapid disease progression in *M. mulatta* but replication is controlled in *M. nemestrina*.<sup>90</sup> These species differences in response to viral infection allow for investigation into correlates of protection and disease progression. *M. nemestrina* are also the premier model of the effects of HIV on the CNS, developing more consistent and reproducible pathogenesis when compared to the rhesus macaque.<sup>5,17,18,91-97</sup>

#### *Vaccine strategies*

Development of a clinically-effective AIDS vaccine has been a long-standing goal of the WaNPRC. Current investigations include a broad range of strategies to develop a vaccine that is highly effective against the wide variety of HIV strains present in the human population. As mentioned above, the mucosal barrier is often the first line of defense against HIV transmission, and therefore specific mucosal immunity is a promising target for vaccine development. Dr. Fuller's laboratory has performed extensive research in the induction of mucosal immunity by particle-mediated ("gene gun") DNA administration.<sup>98-105</sup> Although the DNA vaccine is administered into the skin, specific immune responses are elicited at distant mucosal sites.<sup>102</sup> She is currently investigating the use of novel adjuvants to optimize the protective mucosal immunity induced by DNA vaccination. In addition, Dr. Hu's laboratory is investigating the ability of oral vaccine administration to elicit immune responses locally and at distant mucosal sites.

In addition to these investigations into alternate routes of vaccine delivery, WaNPRC researchers continue to develop new strategies for creation of antigens that will induce protective immunity against HIV infection. Dr. Hu's laboratory has evaluated a plethora of AIDS-related vaccines<sup>106-120</sup> and continues to assess new vaccine strategies. Current projects include alteration of the viral coat by glycan modification to enhance the neutralizing antibody response to both homologous and heterologous viral strains, other methods of unmasking epitopes that are conserved among viral strains, and investigation into development of broadly-neutralizing antibodies in long-term lentivirus infection.

No other animal model represents HIV infection in humans as closely as SIV or SHIV infection in nonhuman primates. It is essential to maintain and expand containment housing facilities for NHP to support research into the development of vaccines to prevent AIDS in humans.

#### *Strategies for elimination of HIV from viral sanctuaries*



A major obstacle to long-term control and cure of HIV infection has been the persistence of HIV in reservoirs of latently-infected CD4<sup>+</sup> T-cells and anatomical sanctuaries. The recent cure of an HIV<sup>+</sup> patient by hematopoietic cell transplantation of HIV-resistant cells has opened new avenues of research in investigation of mechanisms by which this reservoir could be altered.<sup>121,122</sup> Dr. Hu, an expert in HIV virology, and Dr. Kiem, an expert in bone marrow transplantation, are collaborating to investigate the effects of bone marrow ablation and transplantation of animals prior to or following lentivirus infection. Dr. Hu also has independent projects underway to evaluate the lymphoid viral sanctuary. His research involves activation of latent infection by experimental CD8<sup>+</sup> lymphocyte depletion and investigation of methods to purge the activated virus. These experiments are intended to further elucidate aspects of lentivirus latency and investigate opportunities for elimination of virus-infected cells.<sup>16,19,123</sup>

In addition to the HIV sanctuary in lymphoid tissues, HIV can persist in neural tissue for extended periods. Dr. Ho's laboratory has been developing novel approaches for delivering antiretroviral drugs to the anatomical sanctuary which consists of the brain and other tissues of the central nervous system.<sup>124,125</sup> He is investigating the use of the pressurized olfactory delivery device in nonhuman primates with the eventual goal of use in humans for the administration of antiretroviral drugs for the prevention and treatment of neuroAIDS.

In addition to the active AIDS-related research program utilizing *M. nemestrina* at the WaNPRC, there is a significant external demand for these animals. Approximately 2 *M. nemestrina* per year are transferred to external investigators. Thus there is a clear need for efficient breeding production of healthy SPF *M. nemestrina* for use in research.

#### Impact of proposed improvements on research

The goal of the project is to improve the quality of the animal model used in HIV/AIDS related research. Consolidation the WaNPRC SPF *M. nemestrina* breeding colony at ABC, primarily in indoor housing, will decrease inbreeding, prevent creation of genetic subpopulations, reduce transportation stress, and reduce the incidence of infectious agents that can confound research.

Transportation is stressful to NHPs.<sup>126</sup> Currently, it is necessary to transport animals from NIRC in Louisiana to Seattle for assignment to research projects, and between NIRC and ABC for adjustments in breeding arrangements. Although it will still be necessary to transport animals from Arizona to Seattle, the distance is much shorter than Louisiana to Seattle (1450 miles vs 2500 miles) and the overall number of shipments and distance travelled will be reduced.

Animals housed with access to the outdoors are exposed to environmental pathogens, which will be different depending on the location. Specifically, animal housed outdoors in Louisiana may become infected with *Trypanosoma cruzi*, the causative organism of Chagas' disease.<sup>127-129</sup> Indoor housing in Arizona will prevent exposure to the triatome bugs that carry *T. cruzi*.

[Write more](#)

#### Project Management

The Principal Investigator for this project is Dr. Sally Thompson-Iritani, whose experience includes over 35 years of experience working with laboratory animals and research support; with 20 of those years including primary responsibility for vivarium management, facility renovation and optimization. The Project Manager for this renovation is Gail Ellingson, the WaNPRC Assistant Director for Facilities and Planning. The project manager provides coordination of design programming, budget, and logistical planning for the improvements affecting animal care and operational support prior and during the project. This role requires the experience and ability to integrate user needs with administrative and regulatory requirements within project timelines. Ms. Ellingson has 2 years of experience in renovation of primate research laboratories, including multiple projects within the WaNPRC I-Wing, RR-Wing, Western, ARCF, and Arizona breeding facilities, including the initial facility renovation and the construction of the first expansion building. She will be involved at all stages of the construction process, including discussions with UW Capital Projects, the architects, and SRPMIC for construction approval, budget oversight, interactions with engineers and contractors including caging manufacturers, and ensuring at all stages that the building meets USDA, NIH, and AAALAC requirements for animal housing. Also on the project team is Dr. Charlotte Hotchkiss, the breeding colony veterinarian, who is responsible for oversight of WaNPRC breeding operations at all facilities. She has 30 years of experience in laboratory animal medicine, has worked in a wide range of animal care facilities across the country, and has

**Commented [ST2]:** We could put some information on the Coccidioides and limitation of the exposure to outside pathogens on future research use.



been involved in multiple facility renovation projects. The facility users are represented by James Murphy, the ABC facility manager and Jerry Adkins, the ABC facilities lead, who will be on site and interface directly with architects, engineers, and contractors during construction. Mr. Murphy has ? years of experience at this facility and currently has oversight of construction of the first ABC expansion building. Mr. Adkins has ? years of experience at this facility and is working directly with the contractors in the current building construction.

Commented [ST3]: Also include Jerry Adkins

### **Facility Improvement Plan**

Grant tables (not included in page count – Table 3)

#### **Arizona Breeding Colony Master Development Plan**

Development of the Arizona breeding colony (ABC) was laid out in a master plan that involved initial setup and proof of concept in phase I and further development and expansion of the colony to meet the growing demand for SPF pigtail macaques in phase II. Phase I was completed in 2013 and included projects identified to meet AAALAC guideline requirements and provide infrastructure capacity for future expansion.

The project will be treated as a tenant improvement and managed jointly by key personnel and the SRPMIC construction office. All renovation work requires permitting by the Community and permits are issued upon design and engineering review and approval at the Community office. Community land also has to be inspected to receive permit authority due to potential archeological remnants that may preclude buildable site. The location of this renovation has been previously built upon and was identified as the location for phase 2 of the WaNPRC Arizona Breeding Colony in the terms of the lease.

Upon initiation of the project, construction documents will be finalized and operational review performed by members of the IACUC and environmental health and safety divisions at the University of Washington to ensure all applicable guidelines and policies under University of Washington jurisdiction are met. Key personnel will be part of the project team to provide multiple perspectives by the end users and compliance experts. Additionally, maintenance of animal facilities is a collective concern of management and finishes used in the first phase of the breeding facilities have been proven in the environment. Well-designed animal housing facilities are necessary to assure that research animals can be maintained in an environment which comply with NIH guidelines, federal regulations, and local and university ordinances and policies.<sup>130,131</sup> The project manager also has the expertise needed as previous liaison with central University administration and the appropriate contacts at the Community to ensure effective communication and all SRPMIC procedures are followed. The design review will also include financial oversight with a capital project budget set up exclusively for the Arizona breeding colony expansion project.

#### **Current status**

The WaNPRC manages four animal holding and research facilities in Seattle: Two are located in the Magnuson Health Science Center (HSC) in I-wing and RR-wing, one is the newly-opened Animal Care and Research Facility (ARCF) adjacent to the HSC, and the other is a leased facility located in downtown Seattle (Western). The lease will expire on the Western facility in 2025, and our plan is to vacate the building at that time. The facilities at HSC and ARCF house animals assigned to research projects, with a small timed-mating *M. nemestrina* breeding colony (approximately 60 animals) in the RR-wing facility.

The bulk of the *M. nemestrina* SPF breeding colony is housed at ABC (281 animals) and NIRC (432 animals). There is no room for additional animals in the current animal housing space at ABC. However, the site is fully staffed with two veterinarians, three veterinary technicians, a site manager, two maintenance personnel, a husbandry supervisor, and ? animal care technicians. The site contains hospital rooms with individual caging, a nursery, diet kitchen, food and bedding storage, surgical suite, necropsy room, treatment room, and veterinary pharmacy. These support facilities have capacity to support the proposed expansion in animal housing.

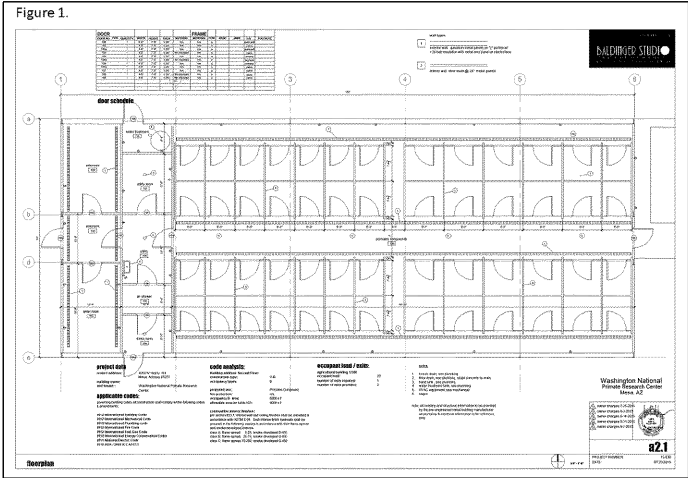
All essential equipment required to provide optimal care for *M. nemestrina* are now available onsite. This includes incubators, microscopes, centrifuge, freezers, refrigerators, cold storage, specialized caging, autoclave, vehicles modified for animal transport, water purification systems, hematology and serum chemistry analyzers, ultrasound, digital x-ray, surgical table and light, anesthesia machine, anesthesia monitors, computers, printers, scanners, and copiers/fax machines. Procedures and facilities utilized at the ABC and throughout WaNPRC continue to be reviewed by the UW IACUC as well as USDA and AAALAC.

The ABC provides optimized environmental controls for pigtail macaques. For example, Direct-Indirect air handling units and evaporative cooling requiring 3-phase power were recommended by TRANE engineering group and have been implemented. It was also determined that 3-phase power would be required for future expansion and therefore was installed. This required easements from adjacent properties for the placement of new utility poles and underground conduit to reach the property. We also installed new circuitry panels, new ducts and exhaust air distribution devices and differential pressure controls to maintain a negative pressure in quarantine and positive pressure in the surgery room. A web based control system to set temperature, humidity levels, monitor and alarm at conditions outside of set ranges was included as part of the entire building system upgrade. We installed a surveillance system that allows remote access to view real-time CCTV recordings of 6 cameras monitoring a 360 degree view, which is monitored 24 hours a day, 7 days a week. Indoor housing runs of existing structures were completely refurbished including all surfaces, perches, and caging. Outdoor runs were subdivided with white colored fiber-reinforced plastic panels and the concrete flooring sealed. Compound housing dividers and decking to meet breeding group space and enrichment requirements were constructed. Customized trapping run connectors for safe animal transport within the indoor housing compound were designed, fabricated and installed. Animal watering lines of 1/2" stainless water main lines and 3/8" stainless branch lines to 126 lixit devices were installed. A piping loop system with recirculating pump and insulation with metal jacket on outside piping was used to prevent outside temperature exposure. All holding rooms, compound and quarantine areas had backflow preventers and multiple height lixits installed for ease of access.

Alterations were required on the lower level for clinic and nursery layout. An exterior door was added to enable clean and dirty corridor usage. Other space alterations on the upper level included dividing a large room for surgery and prep area and minor alterations to set up a recovery room. Three holding rooms were renovated in the adjoining annex building. Support areas renovated include kitchen, laundry, storage and cold storage. All finishes were restored and new appliances installed. MMA (methyl methacrylate) resinous flooring system was installed throughout the facilities and epoxy paint for ease of cleaning and prevention of damage by animals was used on ceilings and walls. These renovations resulted in the ability to accommodate up to 300 animals and this space has been utilized successfully in support of the pigtail macaque breeding colony as noted below. Detailed planning was performed to ensure capacity and accreditation requirements were met for both current and future expansion of the WaNPRC managed SPF pigtail macaque breeding colony in Arizona. Based on the success of the current operations further expansion is planned for additional capacity up to 900 animals in the breeding colony over the next several years which will be required to optimally meet the current demand for pigtail macaques.

Renovations already funded

The expansion of ABC is being spearheaded by the addition of buildings that will add housing for up to 300



additional animals (Figure X).

Commented [ST4]: Which cameras is this referring to?

Commented [CEH5]: What's the new stuff on the walls?

Commented [CH6]: This is an old picture and not accurate anymore. Line drawings will be separate.

The bulk of the animals will be housed in compounds that are flexible in their configuration to permit large compounds for a breeding harem (single male and 8-12 females) or smaller compounds for rearing weanlings. The flexibility of the space is ideal, for breeding groups it functionally replicates the natural breeding structure found in the wild where the normal social structure is a single male harem group that will congregate with other harems only at night for protection, fission, fusion groups. This structure is also somewhat unique in that the male plays a "policing" role in the social group which limits conflict.<sup>132,133</sup> For weanling groups

### Proposed improvements

This project will encompass the construction of the second new animal housing building at the ABC site in Mesa, AZ. The specific architectural and engineering criteria for the proposed construction are described below. In summary, all construction will conform to the recommendations of *The Guide*<sup>131</sup>, the *NIH Design Requirements Manual*<sup>130</sup> and all applicable building codes. The overall dimensions of the building are 50' x 120' (6,000 gross sq. ft.) containing dressing areas for biocontainment, a hospital room for housing ill or injured animals in individual cages, and a large animal holding room containing 26 pens. The pens to be installed in this building are 7' deep and 7' or 8' wide. These modular cages can be linked to allow for social housing of any combination of NHPs. Water will be administered via an automated watering system.

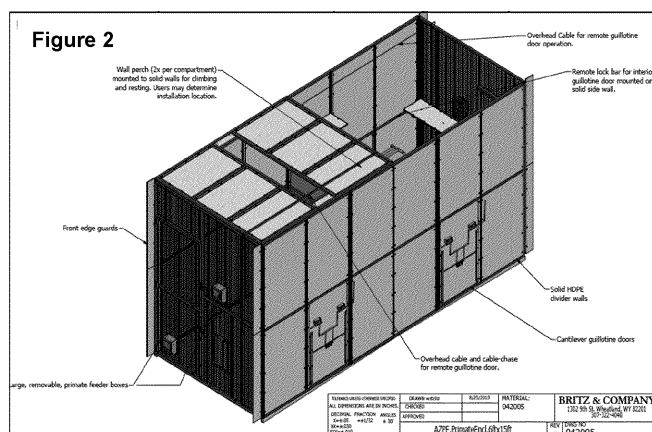
The finishes will be sealed and impermeable to water to allow for thorough cleaning and disinfection. The floors will contain drains to allow for collection of water following hose down of the rooms and also at the end of the automatic watering line to collect water after daily system flushing. Doors will be 42" wide to allow for cage maneuverability, and will have automatic door closers that can be fixed open during cage change out. The doors will contain relights to allow for animal viewing prior to room entry, and the relights will have covers that can be closed to prevent light in the AHR during the dark period.

Say something about efficiencies of scale – how many people needed for original building, for first expansion, and for second expansion.

**Design Considerations:** Table of what will be renovated (not counted in page limit)

**Engineering Criteria:**

The design plan will meet immediate expansion needs by providing additional indoor NHP housing with all appropriate adjacent support areas for gowning, animal treatment and storage. The modular building is 50' x



**Commented [ST7]:** Jim has this data all figured out.

120' (6,000 gross sq. ft.) and will stand as a fully supported housing facility with the exception of animal transport when needed to the main clinic or surgery at the compound housing facility previously renovated. The building is divided by a central corridor with 13 adjacent indoor housing areas off each side for a total of 26 partitioned holding and animal care support areas. Entry to the facility is thru an anteroom with larger storage rooms to both sides or via a gowning room that leads to an air shower adjacent to two Utility rooms and a water treatment closet. There will be sidewalks along the perimeter of the building.

*Number of air changes per hour* -The HVAC system will be ? and provide 100% HEPA-filtered air. Airflow is maintained between and 10 and 15 air changes per hour, with specified differentials to ensure that AHRs are negative to the exterior. Temperature is maintained within the ranges specified in the *Guide*<sup>131</sup> (64-84F) within 2 degrees of the set point. With the new system, humidification has been added to ensure that relative humidity does not drop below the minimum specified for NHP (30%).

*Electrical power* – Electrical design for the new animal building will be fed from the existing 1000 amp 208 volt standby distribution panel via a new 200 amp, 3phase, 4 wire 208/120 volt panel rated at 42,000 AIC. The new panel will be fed with a new 200 amp. Distribution breaker to be located in the existing distribution section, which is on the stand by generator system with underground conduit and conductors. The new panel will feed the lighting receptacles and HVAC system for the building. Indicom Electric Co. will provide complete set of electrical construction drawings and specifications.

*Light levels* - Energy-efficient fluorescent light fixtures will be recessed, and sealed and gasketed with tamper-proof covers. The lights will have two settings for high and low light levels. The timers for the lighting system will be controlled centrally, with emergency override capability. Light sensors will be present in each AHR to verify timer functionality through the ? environmental monitoring system. Manual light overrides will be present outside each AHR to allow lights to be turned on during off hours in emergency situations. The manual overrides will have an automatic turn off after 30 minutes, with a warning change in light intensity prior to shut off.

*Hot and cold water* - The plumbing system will use the existing wells and pumps. The water will be filtered. The feed water in the building will use stainless steel piping. The rest of the water piping will be copper. The sanitary drain system will use a septic system with 2500-gallon tank and septic field. Sanitary drain piping will be ABS or PVC plastic. Piping systems are designed to meet all local codes, the University of Washington Facility Services Design Guide (FSDG) and University of Washington Environmental Health and Safety Laboratory Safety and Design Guide (LSDG). (See plumbing line drawings and Adair plumbing quote for additional trench work scope).

An automated watering system will be installed in the new building. This system consists of a pressure reducing station and stainless steel lines plumbed around the periphery of the pens with multiple lixit drops per pen. At the end of each water distribution line there will be a solenoid valve which can be opened manually or as part of an automated flush system. This flush will discharge into a drain. In addition, the building will be supplied with a water mixing station and hose bib to provide warm water for room cleaning.

*Steam/Mechanical, electrical, plumbing (MEP) requirements* – The new building will not have steam. The mechanical system uses 100 percent outside air, indirect-direct evaporative cooler with propane heat. This means the outside air passes once through the evaporative cooler into the building than relieved from the building. The air does not circulate back to the air conditioning unit. The air is cooled using an indirect, direct evaporative cooler. The indirect cooling is water that is cooled by evaporation than pumped through a coil to cool the air. When the indirect cooling does not have enough capacity to cool the air the air from the indirect coil is further cooled by sending the air through a wet evaporative cooler pad. Evaporative cooling in the Phoenix air requires approximately 3.5 cfm per square foot to be effective. The cooling air changes per hour are approximately 15.2. Indirect direct evaporative coolers are more energy efficient than direct expansion type air conditioning due to the electricity required to operate the compressor. Indirect direct evaporative coolers have pumps and fans only, no compressor. It is technically difficult and expensive to operate 100 percent outside air direct expansion air conditioners in the Phoenix desert climate due to the high outside air temperature. The relief air from the evaporative cooler has the added benefit of cooling the outdoor runs. Indirect direct evaporative cooling is the same method of cooling used on the main building. The air is heated by a propane heater in the indirect direct evaporative cooler. The 100 percent outside airflow is reduced by half to reduce energy costs.

**Commented [CH8]:** I'm guessing there will be a recirculating system in Arizona, but I don't know the specs.



*Fire protection requirements* - Full coverage smoke detection system and strobe devices will be the evacuation signals used. The fire suppression misting system selected for this application conforms to NFPA 13 requirements and applicable SRPMIC and AZ building fire code requirements.

*Biohazard and radiation safety requirements* – All animal facilities housing macaque species are designated ABSL-2. Entry is restricted to trained personnel who are enrolled in the UW Occupational Health program. The primary agent of concern when working with macaques is *Macacacine herpesvirus-1* (B virus), although this SPF colony is tested semiannually to confirm that these animals are free of this agent. NHP may also carry zoonotic pathogens such as *M. tuberculosis*, *Shigella*, *Salmonella*, and *Campylobacter sp.* In order to prevent disease transmission, all personnel wear protective personal equipment (PPE – scrubs and labcoat, shoe covers, head cover, mask, face shield, and two pairs of nitrile or latex gloves) in the vivarium. All waste from AHRs (primarily dirty bedding and animal waste) and procedure rooms is collected in biohazard bags within the room, sealed, and transported to ??? All procedures have been inspected and approved by the UW Environmental Health and Safety (EH&S) department. The only radiation exposure at the ABC facility is from clinical radiography. Ask Melinda about rad safety.

*Chemicals used* –The animal holding pens and building surfaces are cleaned with paracetic acid (Spor-Klenz), quaternary ammonium (Process NPD), phosphoric acid (Foam 240), or phenolic (Vesphene) disinfectants. Appropriate PPE is worn during cleaning and manufacturer's recommendations for safety precautions are followed.

*Major scientific equipment to be installed including environmental rooms-see Building automation systems*

*Density of fume hoods* –N/A

*Building population/Number of workstations* - The proposed renovations will create new vivarium space. This change will increase the animal holding from approximately 600 to approximately 900 NHP. Are there any workstations? Is this paragraph a requirement for this grant?

*Security/surveillance* - The WaNPRC ABC facility has several levels of security in place. Write more.

*Building automation systems* - The temperatures are controlled centrally through the ?? system. In the event of system failure the dampers remain in the previous position to avoid wide fluctuations in temperature. In the event of a power failure to the building, there is an automatic switch to generator power which maintains essential functions. Temperature, humidity, lighting, air flow, and flushing of the automatic watering system are all controlled by the ? system. Customized reports can be accessed remotely using the web-based ??? program. When there are excursions in temperature from specified parameters, messages are sent to pagers, smart phones, and/or e-mail to alert responsible personnel of the need for corrective action.

#### **Architectural Criteria:**

*Base Design Criteria* - Building systems are designed to meet all local codes, the University of Washington Facility Services Design Guide (FSDG) and University of Washington Environmental Health and Safety Laboratory Safety and Design Guide (LSDG) as well as the NIH Design Requirements Manual.<sup>130</sup> SRPMIC Fire dept. and Community engineering construction services (Dept. ECS) will review and inspect the design and completed facility to meet regulatory life safety standards.

This project scope includes pouring foundation to install a modular steel building built for NHP animal housing at the WaNPRC Arizona breeding colony, Mesa, AZ. The building is 50' X 120' x 11' with a 2.5:12 roof pitch, 26 gauge galvalume roof with roof panels, 26 gauge painted walls, (1) 4'4" x 7'2" framed opening with cover trim, plus long life fasteners, full eave and sill closures, deluxe base trim. R-32 Roof insulation and R-19 Wall insulation. The roof is 10" R-32 with WMP-50 facing and the wall insulation is 6" R-19 (polypropylene moisture barrier, 120 lbs. sq. inch burst ability). This building meets AC 172 (formerly AISC) certification.

*Width of corridors and doors and surface finishes* - The building does not contain corridors between rooms, per se, but the walkways around the animal pens are ? feet wide to allow for movement of carts and ensure personnel safety from animals reaching out. The doors will measure 42" x 84" to allow easy passage of personnel and equipment. The doors will be solid core and clad with fiber-reinforced plastic (FRP), and the door frames will be stainless steel welded (#4 finish), to prevent vermin entry or harborage, to withstand passage of NHP cages, and to prevent corrosion. The door hardware will be heavy duty and operating

handles will be chosen to best resist damage from carts and cages. Doors will have a viewing window with a slide panel for light control on the corridor side.

Finishes include sanitizable polymax sheeting for ceilings and walls and methyl methacrylate flooring. Interior caging materials including square steel tube galvanized material and square weave wire mesh, plain steel cold rolled, 1" square opening of .25" wire diameter, lock crimp weave provided by Britz Co. Drains will be placed ??? with floors sloped toward the drain. Drain covers will be screwed in place to prevent any escaped animal from accessing the drain.

*Quality of life issues* - Natural light will be available through skylights and windows?

*Planning module and planning concepts* – The overarching planning concept for this proposal is the consolidation of the SPF *M. nemestrina* breeding colony at the ABC facility. From the time of the original occupancy at ABC, the intent was to expand the facility such that it could house the entire breeding colony. This expansion serves multiple purposes. The expansion buildings are specifically designed for *M. nemestrina*, taking into account the physical, behavioral, and social characteristics of this species. Consolidation of the breeding colony will result in economies of scale at the ABC facility, reduce duplicative procedures and records regarding breeding management, and reduce shipping costs.

*Functional relationships and zoning of the renovated area* – The consolidation of the breeding colony at a single site will increase functionality within the breeding colony. This site remains remote from the site of the WaNPRC research program in Seattle; however maintaining a large breeding colony in Seattle is cost prohibitive. At this site it is possible to give the animals more room and more environmental enrichment. Although there would be advantages to allowing the animals outdoor access, these are outweighed by the negative effects of exposure to *Coccidioides* spores.

*Green/sustainable design* - The University of Washington is committed to "green design" solutions, and this proposal will integrate as many optimization components as possible into this renovation. Of primary focus are optimizing energy/utility efficiencies, water protection and conservation, protection of indoor air quality during renovation, construction waste reuse and recycling, and minimizing use of ozone depleting compounds. The UW is a member of the US Green Building Council and has over 50 LEED professionals on staff that can provide input in the entire phase 2 plan. In addition, for the third year in a row, in 2009 the UW was identified as 1 of 16 out of 300 colleges surveyed that was recognized as an Overall College Sustainability Leader (Sustainability Endowment Institute). The UW is a signatory to the Presidents Climate Commitment and is in the process of developing a campus climate plan. Arizona is particularly progressive in this area and the Community review includes additional water conservation methods to incorporate as applicable specific for the desert climate.

*Line drawings* – not included in page limit

#### **Equipment:**

Equipment requested includes fixed caging for the housing of NHP. These pens are ? by ?, and constructed of stainless steel and ?. Write about doors, perches, verandas, remote manipulation, safety.

#### **Project Timeline:**

Preliminary design for the project has been completed. The proposed timeline is flexible and construction drawings have been approved by SRPMIC in preparation of permit applications to the construction office at this time. Actual construction of the modular unit should be no longer than 6 months duration before it is ready for commissioning and occupancy.

#### **References**

1. Henderson, L.E., *et al.* Molecular characterization of gag proteins from simian immunodeficiency virus (SIVMne). *J Virol* **62**, 2587-2595 (1988).
2. Beer, B.E., *et al.* Immunodeficiency in the absence of high viral load in pig-tailed macaques infected with Simian immunodeficiency virus SIVsun or SIVIhoest. *J Virol* **79**, 14044-14056 (2005).
3. Canary, L.A., *et al.* Rate of AIDS progression is associated with gastrointestinal dysfunction in simian immunodeficiency virus-infected pigtail macaques. *J Immunol* **190**, 2959-2965 (2013).
4. Fultz, P.N., *et al.* Immunogenicity in pig-tailed macaques of poliovirus replicons expressing HIV-1 and SIV antigens and protection against SHIV-89.6P disease. *Virology* **315**, 425-437 (2003).

**Commented [CEH9]:** Sally asked: Would it be possible to get a solar panel quote? (the comment got deleted when the text was deleted)

5. Gooneratne, S.L., *et al.* Linking pig-tailed macaque major histocompatibility complex class I haplotypes and cytotoxic T lymphocyte escape mutations in simian immunodeficiency virus infection. *J Virol* **88**, 14310-14325 (2014).
6. Hirsch, V.M., G., D., R., G. & B.J., C. Phylogeny and natural history of the primate lentiviruses, SIV and HIV. *Curr Opin Genet Dev* **5**, 798-806 (1995).
7. Joag, S.V., *et al.* Chimeric simian/human immunodeficiency virus that causes progressive loss of CD4+ T cells and AIDS in pig-tailed macaques. *J Virol* **70**, 3189-3197 (1996).
8. Joag, S.V., *et al.* Oral immunization of macaques with attenuated vaccine virus induces protection against vaginally transmitted AIDS. *J Virol* **72**, 9069-9078 (1998).
9. Otten, R.A., *et al.* Differential replication and pathogenic effect of HIV-1 and HIV-2 in *Macaca nemestrina*. *AIDS Res Hum Retroviruses* **8**, 297-306 (1994).
10. Pullium, J.K., *et al.* Pig-tailed macaques infected with human immunodeficiency virus (HIV) type 2GB122 or simian/HIV89.6p express virus in semen during primary infection: new model for genital tract shedding and transmission. *J Infect Dis* **183**, 1023-1030 (2001).
11. Radzio, J., *et al.* Prevention of vaginal SHIV transmission in macaques by a coitally-dependent Truvada regimen. *PLoS one* **7**, e50632 (2012).
12. Radzio, J., *et al.* The long-acting integrase inhibitor GSK744 protects macaques from repeated intravaginal SHIV challenge. *Sci Transl Med* **7**, 270ra275 (2015).
13. Wei, Q., Stallworth, J.W., Vance, P.J., Hoxie, J.A. & Fultz, P.N. Simian immunodeficiency virus (SIV)/immunoglobulin G immune complexes in SIV-infected macaques block detection of CD16 but not cytolytic activity of natural killer cells. *Clin Vaccine Immunol* **13**, 768-778 (2006).
14. Younan, P.M., *et al.* Positive selection of mC46-expressing CD4+ T cells and maintenance of virus specific immunity in a primate AIDS model. *Blood* **122**, 179-187 (2013).
15. Parsons, M.S., *et al.* Fc-dependent functions are redundant to efficacy of anti-HIV antibody PGT121 in macaques. *J Clin Invest* **129**, 182-191 (2019).
16. Peterson, C.W., *et al.* Differential impact of transplantation on peripheral and tissue-associated viral reservoirs: Implications for HIV gene therapy. *PLoS pathogens* **14**, e1006956 (2018).
17. Mangus, L.M., *et al.* Lymphocyte-Dominant Encephalitis and Meningitis in Simian Immunodeficiency Virus-Infected Macaques Receiving Antiretroviral Therapy. *Am J Pathol* **188**, 125-134 (2018).
18. Beck, S.E., *et al.* An SIV/macaque model targeted to study HIV-associated neurocognitive disorders. *J Neurovirol* **24**, 204-212 (2018).
19. Zhen, A., *et al.* Long-term persistence and function of hematopoietic stem cell-derived chimeric antigen receptor T cells in a nonhuman primate model of HIV/AIDS. *PLoS pathogens* **13**, e1006753 (2017).
20. Srinivasan, P., *et al.* Repeated administration of high-dose depot medroxyprogesterone acetate does not alter SHIVSF162p3 viral kinetics and tenofovir pharmacokinetics when delivered via intravaginal rings. *J Med Primatol* **46**, 129-136 (2017).
21. Smith, J.M., *et al.* Novel multipurpose pod-intravaginal ring for the prevention of HIV, HSV, and unintended pregnancy: Pharmacokinetic evaluation in a macaque model. *PLoS one* **12**, e0185946 (2017).
22. Parsons, M.S., *et al.* Partial efficacy of a broadly neutralizing antibody against cell-associated SHIV infection. *Sci Transl Med* **9**(2017).
23. Makarova, N., *et al.* Topical tenofovir protects against vaginal simian HIV infection in macaques coinfecting with *Chlamydia trachomatis* and *Trichomonas vaginalis*. *Aids* **31**, 745-752 (2017).
24. Gama, L., *et al.* Reactivation of simian immunodeficiency virus reservoirs in the brain of virally suppressed macaques. *Aids* **31**, 5-14 (2017).
25. Croteau, J.D., Engle, E.L., Queen, S.E., Shirk, E.N. & Zink, M.C. Marked Enteropathy in an Accelerated Macaque Model of AIDS. *Am J Pathol* **187**, 589-604 (2017).
26. Brocca-Cofano, E., *et al.* Pathogenic Correlates of Simian Immunodeficiency Virus-Associated B Cell Dysfunction. *J Virol* **91**(2017).
27. Srinivasan, P., *et al.* Safety and Pharmacokinetics of Quick-Dissolving Polymeric Vaginal Films Delivering the Antiretroviral IQP-0528 for Preexposure Prophylaxis. *Antimicrob Agents Chemother* **60**, 4140-4150 (2016).
28. Srinivasan, P., *et al.* Topical Delivery of Tenofovir Disoproxil Fumarate and Emtricitabine from Pod-Intravaginal Rings Protects Macaques from Multiple SHIV Exposures. *PLoS one* **11**, e0157061 (2016).

29. Peterson, C.W., *et al.* Multilineage polyclonal engraftment of Cal-1 gene-modified cells and in vivo selection after SHIV infection in a nonhuman primate model of AIDS. *Molecular therapy. Methods & clinical development* **3**, 16007 (2016).
30. Pandrea, I., *et al.* Antibiotic and Antiinflammatory Therapy Transiently Reduces Inflammation and Hypercoagulation in Acutely SIV-Infected Pigtailed Macaques. *PLoS pathogens* **12**, e1005384 (2016).
31. Ortiz, A.M., *et al.* IL-21 and probiotic therapy improve Th17 frequencies, microbial translocation, and microbiome in ARV-treated, SIV-infected macaques. *Mucosal Immunol* **9**, 458-467 (2016).
32. Kanthaswamy, S., *et al.* Population genetics of the Washington National Primate Research Center's (WaNPRC) captive pigtailed macaque (*Macaca nemestrina*) population. *Am J Primatol* **74**, 1017-1027 (2012).
33. Belshan, M., *et al.* Vpx is critical for SIV<sub>mac</sub> infection of pigtail macaques. *Retrovirology* **9**, 32 (2012).
34. Brennan, G., Kozyrev, Y., Kodama, T. & Hu, S.L. Novel TRIM5 isoforms expressed by *Macaca nemestrina*. *J Virol* **81**, 12210-12217 (2007).
35. Humes, D. & Overbaugh, J. Adaptation of subtype A human immunodeficiency virus type 1 envelope to pig-tailed macaque cells. *J Virol* **85**, 4409-4420 (2011).
36. Mankowski, J.L., *et al.* Natural host genetic resistance to lentiviral CNS disease: a neuroprotective MHC class I allele in SIV-infected macaques. *PLoS one* **3**, e3603 (2008).
37. Pratt, B.F., *et al.* MHC class I allele frequencies in pigtail macaques of diverse origin. *Immunogenetics* **58**, 995-1001 (2006).
38. Reece, J.C., *et al.* Timing of immune escape linked to success or failure of vaccination. *PLoS one* **5**(2010).
39. Schmitz, J.E., *et al.* Inhibition of adaptive immune responses leads to a fatal clinical outcome in SIV-infected pigtailed macaques but not vervet African green monkeys. *PLoS pathogens* **5**, e1000691 (2009).
40. Karim, Q.A. & Baxter, C. Microbicides for the prevention of sexually transmitted HIV infection. *Expert review of anti-infective therapy* **11**, 13-23 (2013).
41. Butler, K., *et al.* A Depot Medroxyprogesterone Acetate Dose That Models Human Use and Its Effect on Vaginal SHIV Acquisition Risk. *J Acquir Immune Defic Syndr* **72**, 363-371 (2016).
42. Dietz Ostergaard, S., *et al.* A combined oral contraceptive affects mucosal SHIV susceptibility factors in a pigtail macaque (*Macaca nemestrina*) model. *J Med Primatol* **44**, 97-107 (2015).
43. Engel, R.M., *et al.* Evaluation of pigtail macaques as a model for the effects of copper intrauterine devices on HIV infection. *J Med Primatol* **43**, 349-359 (2014).
44. Hadzic, S.V., *et al.* Comparison of the vaginal environment of *Macaca mulatta* and *Macaca nemestrina* throughout the menstrual cycle. *American journal of reproductive immunology* **71**, 322-329 (2014).
45. Henning, T., *et al.* Development of a pigtail macaque model of sexually transmitted infection/HIV coinfection using *Chlamydia trachomatis*, *Trichomonas vaginalis*, and SHIV(SF162P3). *J Med Primatol* **40**, 214-223 (2011).
46. Henning, T.R., *et al.* Increased susceptibility to vaginal simian/human immunodeficiency virus transmission in pig-tailed macaques coinfecting with *Chlamydia trachomatis* and *Trichomonas vaginalis*. *J Infect Dis* **210**, 1239-1247 (2014).
47. Kersh, E.N., *et al.* SHIV susceptibility changes during the menstrual cycle of pigtail macaques. *J Med Primatol* **43**, 310-316 (2014).
48. McNicholl, J.M., Henning, T.C., Vishwanathan, S.A. & Kersh, E.N. Non-human primate models of hormonal contraception and HIV. *American journal of reproductive immunology* **71**, 513-522 (2014).
49. Radzio, J., *et al.* Physiologic doses of depot-medroxyprogesterone acetate do not increase acute plasma simian HIV viremia or mucosal virus shedding in pigtail macaques. *Aids* **28**, 1431-1439 (2014).
50. Mirmonsef, P., *et al.* A comparison of lower genital tract glycogen and lactic acid levels in women and macaques: implications for HIV and SIV susceptibility. *AIDS Res Hum Retroviruses* **28**, 76-81 (2012).
51. Mirmonsef, P., Krass, L., Landay, A. & Spear, G.T. The role of bacterial vaginosis and trichomonas in HIV transmission across the female genital tract. *Current HIV research* **10**, 202-210 (2012).
52. Patton, D.L., Sweeney, Y.C., Rabe, L.K. & Hillier, S.L. The vaginal microflora of pig-tailed macaques and the effects of chlorhexidine and benzalkonium on this ecosystem. *Sex Transm Dis* **23**, 489-493 (1996).
53. Cole, A.M., *et al.* The formulated microbicide RC-101 was safe and antivirally active following intravaginal application in pigtailed macaques. *PLoS one* **5**, e15111 (2010).



54. Gupta, P., *et al.* Antiviral activity of retrocyclin RC-101, a candidate microbicide against cell-associated HIV-1. *AIDS Res Hum Retroviruses* **29**, 391-396 (2013).
55. Gupta, P., *et al.* Retrocyclin RC-101 blocks HIV-1 transmission across cervical mucosa in an organ culture. *J Acquir Immune Defic Syndr* **60**, 455-461 (2012).
56. Li, M., *et al.* Incorporation of the HIV-1 microbicide cyanovirin-N in a food product. *J Acquir Immune Defic Syndr* **58**, 379-384 (2011).
57. Patton, D.L. A guide for standardizing colposcopic observations for the evaluation of topical microbicide products in the pigtailed macaque model. *J Med Primatol* **41**, 48-51 (2012).
58. Patton, D.L., Cosgrove Sweeney, Y.T. & Paul, K.J. A summary of preclinical topical microbicide vaginal safety and chlamydial efficacy evaluations in a pigtailed macaque model. *Sex Transm Dis* **35**, 889-897 (2008).
59. Patton, D.L., *et al.* Preclinical safety assessments of UC781 anti-human immunodeficiency virus topical microbicide formulations. *Antimicrob Agents Chemother* **51**, 1608-1615 (2007).
60. Patton, D.L., Sweeney, Y.T. & Paul, K.J. A summary of preclinical topical microbicide rectal safety and efficacy evaluations in a pigtailed macaque model. *Sex Transm Dis* **36**, 350-356 (2009).
61. Sassi, A.B., *et al.* Formulation development of retrocyclin 1 analog RC-101 as an anti-HIV vaginal microbicide product. *Antimicrob Agents Chemother* **55**, 2282-2289 (2011).
62. Sweeney, Y.T., Angeles, R.O., Cummings, P.K., Smith, A.D. & Patton, D.L. Pigtailed macaque model refinement: topical microbicide safety in the presence of coitus. *J Med Primatol* **40**, 327-334 (2011).
63. Wang, L., *et al.* Development of a liposome microbicide formulation for vaginal delivery of octylglycerol for HIV prevention. *Drug development and industrial pharmacy* **38**, 995-1007 (2012).
64. Ball, C., Krogstad, E., Chaowanachan, T. & Woodrow, K.A. Drug-eluting fibers for HIV-1 inhibition and contraception. *PLoS one* **7**, e49792 (2012).
65. Woodrow, K.A., Bennett, K.M. & Lo, D.D. Mucosal vaccine design and delivery. *Annual review of biomedical engineering* **14**, 17-46 (2012).
66. Woodrow, K.A., *et al.* Intravaginal gene silencing using biodegradable polymer nanoparticles densely loaded with small-interfering RNA. *Nature materials* **8**, 526-533 (2009).
67. Woodrow, K.A., Wood, M.J., Saucier-Sawyer, J.K., Solbrig, C. & Saltzman, W.M. Biodegradable meshes printed with extracellular matrix proteins support micropatterned hepatocyte cultures. *Tissue engineering. Part A* **15**, 1169-1179 (2009).
68. Baas, T., *et al.* Integrated molecular signature of disease: analysis of influenza virus-infected macaques through functional genomics and proteomics. *J Virol* **80**, 10813-10828 (2006).
69. Baskin, C.R., *et al.* Integration of clinical data, pathology, and cDNA microarrays in influenza virus-infected pigtailed macaques (*Macaca nemestrina*). *J Virol* **78**, 10420-10432 (2004).
70. Fornek, J.L., Korth, M.J. & Katze, M.G. Use of functional genomics to understand influenza-host interactions. *Advances in virus research* **70**, 81-100 (2007).
71. Haigwood, N.L., *et al.* Passive immunotherapy in simian immunodeficiency virus-infected macaques accelerates the development of neutralizing antibodies. *J Virol* **78**, 5983-5995 (2004).
72. Jegaskanda, S., *et al.* Comparison of influenza and SIV specific CD8 T cell responses in macaques. *PLoS one* **7**, e32431 (2012).
73. Patton, D.L., *et al.* Development of a nonhuman primate model for *Trichomonas vaginalis* infection. *Sex Transm Dis* **33**, 743-746 (2006).
74. Reece, J.C., *et al.* Trivalent live attenuated influenza-simian immunodeficiency virus vaccines: efficacy and evolution of cytotoxic T lymphocyte escape in macaques. *J Virol* **87**, 4146-4160 (2013).
75. Sexton, A., *et al.* Evaluation of recombinant influenza virus-simian immunodeficiency virus vaccines in macaques. *J Virol* **83**, 7619-7628 (2009).
76. Agy, M.B., *et al.* Infection of *Macaca nemestrina* by human immunodeficiency virus type-1. *Science* **257**, 103-106 (1992).
77. Kimata, J.T., L., K., D., A., P., D. & J., O. Emerging cytopathic and antigenic SIV variants influence AIDS progression. *Nature Medicine* **5**, 535-541 (1999).
78. Kinman, L.M., *et al.* HIV in central nervous system and behavioral development: an HIV-2287 macaque model of AIDS. *AIDS* **18**, 1363-1370 (2004).
79. Kuller, L., *et al.* Intrarectal inoculation of macaques by the simian immunodeficiency virus, SIVmne E11S: CD4+ depletion and AIDS. *J Med Primatol* **23**, 397-409 (1994).

80. Kuller, L., Benveniste, R.E., Watanabe, R., Tsai, C.C. & Morton, W.R. Transmission of SIVMne from female to male *Macaca nemestrina*. *J Med Primatol* **21**, 299-307 (1992).
81. McClure, J., *et al.* Derivation and characterization of a highly pathogenic isolate of human immunodeficiency virus type 2 that causes rapid CD4+ cell depletion in *Macaca nemestrina*. *J Med Primatol* **29**, 114-126 (2000).
82. Worlein, J.M., *et al.* Cognitive and motor deficits associated with HIV-2(287) infection in infant pigtailed macaques: a nonhuman primate model of pediatric neuro-AIDS. *J Neurovirol* **11**, 34-45 (2005).
83. Zhu, T., *et al.* Persistence of low levels of simian immunodeficiency virus in macaques that were transiently viremic by conventional testing. *Virology* **323**, 208-219 (2004).
84. Morton, W.R., *et al.* Transmission of the simian immunodeficiency virus SIVmne in macaques and baboons. *J Med Primatol* **18**, 237-245 (1989).
85. Raghavan, R., *et al.* Neuropathogenesis of chimeric simian/human immunodeficiency virus infection in pig-tailed and rhesus macaques. *Brain Pathol* **7**, 851-861 (1997).
86. Brown, J.N., *et al.* Morphine produces immunosuppressive effects in nonhuman primates at the proteomic and cellular levels. *Molecular & cellular proteomics : MCP* **11**, 605-618 (2012).
87. Favre, D., *et al.* Critical loss of the balance between Th17 and T regulatory cell populations in pathogenic SIV infection. *PLoS pathogens* **5**, e1000295 (2009).
88. Pandrea, I., *et al.* Paucity of CD4+CCR5+ T cells is a typical feature of natural SIV hosts. *Blood* **109**, 1069-1076 (2007).
89. Pandrea, I., *et al.* Mucosal simian immunodeficiency virus transmission in African green monkeys: susceptibility to infection is proportional to target cell availability at mucosal sites. *J Virol* **86**, 4158-4168 (2012).
90. Polacino, P., *et al.* Differential pathogenicity of SHIV infection in pig-tailed and rhesus macaques. *J Med Primatol* **37 Suppl 2**, 13-23 (2008).
91. Beck, S.E., *et al.* Macaque species susceptibility to simian immunodeficiency virus: increased incidence of SIV central nervous system disease in pigtailed macaques versus rhesus macaques. *J Neurovirol* **21**, 148-158 (2015).
92. Beck, S.E., *et al.* Paving the path to HIV neurotherapy: Predicting SIV CNS disease. *Eur J Pharmacol* **759**, 303-312 (2015).
93. Dorsey, J.L., *et al.* Persistent Peripheral Nervous System Damage in Simian Immunodeficiency Virus-Infected Macaques Receiving Antiretroviral Therapy. *J Neuropathol Exp Neurol* **74**, 1053-1060 (2015).
94. Dorsey, J.L., *et al.* Loss of corneal sensory nerve fibers in SIV-infected macaques: an alternate approach to investigate HIV-induced PNS damage. *Am J Pathol* **184**, 1652-1659 (2014).
95. Mangus, L.M., *et al.* Neuroinflammation and virus replication in the spinal cord of simian immunodeficiency virus-infected macaques. *J Neuropathol Exp Neurol* **74**, 38-47 (2015).
96. Meulendyke, K.A., *et al.* Combination fluconazole/paroxetine treatment is neuroprotective despite ongoing neuroinflammation and viral replication in an SIV model of HIV neurological disease. *J Neurovirol* **20**, 591-602 (2014).
97. Meulendyke, K.A., *et al.* Elevated brain monoamine oxidase activity in SIV- and HIV-associated neurological disease. *J Infect Dis* **210**, 904-912 (2014).
98. Eisenbraun, M.D., Fuller, D.H. & Haynes, J.R. Examination of parameters affecting the elicitation of humoral immune responses by particle bombardment-mediated genetic immunization. *DNA and cell biology* **12**, 791-797 (1993).
99. Fuller, D.H., Corb, M.M., Barnett, S., Steimer, K. & Haynes, J.R. Enhancement of immunodeficiency virus-specific immune responses in DNA-immunized rhesus macaques. *Vaccine* **15**, 924-926 (1997).
100. Fuller, D.H., Loudon, P. & Schmaljohn, C. Preclinical and clinical progress of particle-mediated DNA vaccines for infectious diseases. *Methods* **40**, 86-97 (2006).
101. Fuller, D.H., *et al.* Therapeutic DNA vaccine induces broad T cell responses in the gut and sustained protection from viral rebound and AIDS in SIV-infected rhesus macaques. *PloS one* **7**, e33715 (2012).
102. Fuller, D.H., *et al.* Induction of mucosal protection against primary, heterologous simian immunodeficiency virus by a DNA vaccine. *J Virol* **76**, 3309-3317 (2002).
103. Fuller, D.H., *et al.* DNA immunization in combination with effective antiretroviral drug therapy controls viral rebound and prevents simian AIDS after treatment is discontinued. *Virology* **348**, 200-215 (2006).

104. Fuller, D.H., *et al.* Immunogenicity of hybrid DNA vaccines expressing hepatitis B core particles carrying human and simian immunodeficiency virus epitopes in mice and rhesus macaques. *Virology* **364**, 245-255 (2007).
105. Fuller, D.H., *et al.* Gene gun-based nucleic acid immunization alone or in combination with recombinant vaccinia vectors suppresses virus burden in rhesus macaques challenged with a heterologous SIV. *Immunology and cell biology* **75**, 389-396 (1997).
106. Ambrose, Z., *et al.* Evidence for immune-mediated reduction of viral replication in *Macaca nemestrina* mucosally immunized with inactivated SHIV(89.6). *Virology* **308**, 178-190 (2003).
107. Haigwood, N.L., *et al.* Protection from pathogenic SIV challenge using multigenic DNA vaccines. *Immunol Lett* **66**, 183-188 (1999).
108. Hu, S.L. Non-human primate models for AIDS vaccine research. *Curr Drug Targets Infect Disord* **5**, 193-201 (2005).
109. Hu, S.L., *et al.* Protection of macaques against SIV infection by subunit vaccines of SIV envelope glycoprotein gp160. *Science* **255**, 456-459 (1992).
110. Hu, S.L., *et al.* Evaluation of protective efficacy of recombinant subunit vaccines against simian immunodeficiency virus infection of macaques. *J Med Primatol* **21**, 119-125 (1992).
111. Hu, S.L., *et al.* Recombinant subunit vaccines as an approach to study correlates of protection against primate lentivirus infection. *Immunol Lett* **51**, 115-119 (1996).
112. Kent, S.J., Hu, S.L., Corey, L., Morton, W.R. & Greenberg, P.D. Detection of simian immunodeficiency virus (SIV)-specific CD8+ T cells in macaques protected from SIV challenge by prior SIV subunit vaccination. *J Virol* **70**, 4941-4947 (1996).
113. Lakhashe, S.K., *et al.* Prime-boost vaccination with heterologous live vectors encoding SIV gag and multimeric HIV-1 gp160 protein: efficacy against repeated mucosal R5 clade C SHIV challenges. *Vaccine* **29**, 5611-5622 (2011).
114. Lakhashe, S.K., *et al.* Vaccination against heterologous R5 clade C SHIV: prevention of infection and correlates of protection. *PLoS one* **6**, e22010 (2011).
115. Montefiori, D.C., Reimann, K.A., Letvin, N.L., Zhou, J. & Hu, S.L. Studies of complement-activating antibodies in the SIV/macaque model of acute primary infection and vaccine protection. *AIDS Res Hum Retroviruses* **11**, 963-970 (1995).
116. Mossman, S.P., *et al.* Protective immunity to SIV challenge elicited by vaccination of macaques with multigenic DNA vaccines producing virus-like particles. *AIDS Res Hum Retroviruses* **20**, 425-434 (2004).
117. Polacino, P., *et al.* Protection of macaques against intrarectal infection by a combination immunization regimen with recombinant simian immunodeficiency virus SIVmne gp160 vaccines. *J Virol* **73**, 3134-3146 (1999).
118. Polacino, P.S., *et al.* Role of immune responses against the envelope and the core antigens of simian immunodeficiency virus SIVmne in protection against homologous cloned and uncloned virus challenge in Macaques. *J Virol* **73**, 8201-8215 (1999).
119. Rasmussen, R.A., *et al.* DNA prime/protein boost vaccine strategy in neonatal macaques against simian human immunodeficiency virus. *J Med Primatol* **31**, 40-60 (2002).
120. Rasmussen, R.A., *et al.* Efficacy of a multigenic protein vaccine containing multimeric HIV gp160 against heterologous SHIV clade C challenges. *AIDS* **21**, 1841-1848 (2007).
121. Hutter, G., *et al.* Long-term control of HIV by CCR5 Delta32/Delta32 stem-cell transplantation. *The New England journal of medicine* **360**, 692-698 (2009).
122. Hutter, G., Schneider, T. & Thiel, E. Transplantation of selected or transgenic blood stem cells - a future treatment for HIV/AIDS? *Journal of the International AIDS Society* **12**, 10 (2009).
123. Reeves, D.B., Peterson, C.W., Kiem, H.P. & Schiffer, J.T. Autologous Stem Cell Transplantation Disrupts Adaptive Immune Responses during Rebound Simian/Human Immunodeficiency Virus Viremia. *J Virol* **91**(2017).
124. Hoekman, J.D. & Ho, R.J. Enhanced analgesic responses after preferential delivery of morphine and fentanyl to the olfactory epithelium in rats. *Anesthesia and analgesia* **113**, 641-651 (2011).
125. Hoekman, J.D. & Ho, R.J. Effects of localized hydrophilic mannitol and hydrophobic nelfinavir administration targeted to olfactory epithelium on brain distribution. *AAPS PharmSciTech* **12**, 534-543 (2011).

126. Fernstrom, A.L., *et al.* Stress in cynomolgus monkeys (*Macaca fascicularis*) subjected to long-distance transport and simulated transport housing conditions. *Stress* **11**, 467-476 (2008).
127. Dorn, P.L., *et al.* Low prevalence of Chagas parasite infection in a nonhuman primate colony in Louisiana. *J Am Assoc Lab Anim Sci* **51**, 443-447 (2012).
128. Fong, D.L., *et al.* Transmission of Chagas disease via blood transfusions in 2 immunosuppressed pigtailed macaques (*Macaca nemestrina*). *Comp Med* **64**, 63-67 (2014).
129. Schielke, J.E., Selvarangan, R., Kyes, K.B. & Fritsche, T.R. Laboratory diagnosis of *Trypanosoma cruzi* infection in a colony-raised pigtailed macaque. *Contemp Top Lab Anim Sci* **41**, 42-45 (2002).
130. National Institutes of Health (U.S.), D.o.T.R. *NIH Design Requirements Manual, Rev 1.2*, (2018).
131. National Research Council (U.S.). Committee for the Update of the Guide for the Care and Use of Laboratory Animals., Institute for Laboratory Animal Research (U.S.) & National Academies Press (U.S.). *Guide for the care and use of laboratory animals*, (National Academies Press, Washington, D.C., 2011).
132. Flack, J.C., de Waal, F.B. & Krakauer, D.C. Social structure, robustness, and policing cost in a cognitively sophisticated species. *The American naturalist* **165**, E126-139 (2005).
133. Flack, J.C., Girvan, M., de Waal, F.B. & Krakauer, D.C. Policing stabilizes construction of social niches in primates. *Nature* **439**, 426-429 (2006).

**From:** Melinda Young <biosafe@uw.edu>  
**Sent:** Monday, December 23, 2019 9:16 AM  
**To:** Geoff Lard; bfalbo1  
**Cc:** Kelly L. Carbone; Jim Murphy  
**Subject:** Occupational Health Orientation  
**Attachments:** Medical Clearance Form RR1532 Initial SHORT\_fillable.pdf;  
Zoonotic\_Diseases\_of\_NHPs\_FINAL.doc; AHA 11-2019.docx

Here are both forms for Skype appt with Becky at Employee Health. I had forgot to send the Respirator form on Friday.

They can be scanned and returned to:  
Employee Health Center ([emphlth@uw.edu](mailto:emphlth@uw.edu))

Melinda

Melinda Young  
Occupational Health and Biosafety Specialist  
Center Programs, Administration, and Operations  
206 543-8686 with voicemail  
Cell 206 696-6977  
[biosafe@uw.edu](mailto:biosafe@uw.edu)  
Hours 8:15 to 5:00 pm

*The WaNPRC is supported by grant P51 OD010425 from the NIH Office of Research Infrastructure Programs. Please help us continue to support your research by citing our grant number in publications*

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**CONFIDENTIAL  
MEDICAL RECORD**



UNIVERSITY OF WASHINGTON

**RESPIRATOR MEDICAL EVALUATION  
QUESTIONNAIRE** — for disposable/half-mask/PAPR  
respirator users

1532

PLEASE PRINT — Attach additional sheets if needed.

ENVIRONMENTAL HEALTH & SAFETY

UoW 1031 short (Rev 10-09)

For help filling this out call the employee health nurse at 206-685-1026. If you have questions about respirators call the Respirator Program Administrator at 206-543-7388.\*

**Your supervisor must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your supervisor must not look at or review your answers.**

Name (Last) \_\_\_\_\_ (First) \_\_\_\_\_ (M.I.) \_\_\_\_\_ EID/SID \_\_\_\_\_ Today's Date \_\_\_\_\_

Job Title \_\_\_\_\_ Box Number \_\_\_\_\_ Dept/Shop \_\_\_\_\_

Supervisor \_\_\_\_\_ Work phone number \_\_\_\_\_ What is the best time to reach you at this number? \_\_\_\_\_

Date of Birth \_\_\_\_\_ Sex ☐ Male ☐ Female Height \_\_\_\_\_ ft. \_\_\_\_\_ in. Weight \_\_\_\_\_ ☐ Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire?

Check the type of respirator you will use (you can check more than one category)

☐ N, R, or P disposable respirator (filter-mask, non-cartridge type only) ☐ Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).

☐ Have you worn a respirator? If yes, what type(s) \_\_\_\_\_

1. ☐ Do you currently smoke tobacco, or have you smoked tobacco in the last month?

2. Have you ever had any of the following conditions?

☐ Seizures (fits) ☐ Diabetes (sugar disease) ☐ Latex allergy or allergic reactions that interfere with your breathing ☐ Claustrophobia (fear of closed-in places) ☐ Trouble smelling odors

3. Have you ever had any of the following pulmonary or lung problems?

☐ Asbestosis ☐ Emphysema ☐ Silicosis ☐ Broken ribs  
☐ Asthma ☐ Pneumonia ☐ Lung cancer ☐ Any chest injuries or surgeries  
☐ Chronic bronchitis ☐ Tuberculosis ☐ Pneumothorax (collapsed lung) ☐ Any other lung problem that you've been told about

4. Do you currently have any of the following symptoms of pulmonary or lung illness?

☐ Shortness of breath ☐ Shortness of breath when washing or dressing yourself ☐ Coughing that occurs mostly when you are lying down  
☐ Shortness of breath when walking fast on level ground or walking up a slight hill or incline ☐ Shortness of breath that interferes with your job ☐ Coughing up blood in the last month  
☐ Shortness of breath when walking with other people at an ordinary pace on level ground ☐ Coughing that produces phlegm (thick sputum) ☐ Wheezing  
☐ Have to stop for breath when walking at your own pace on level ground ☐ Coughing that wakes you early in the morning ☐ Wheezing that interferes with your job  
☐ Chest pain when you breathe deeply  
☐ Any other symptoms that you think may be related to lung problems

5. Have you ever had any of the following cardiovascular or heart problems?

☐ Heart Attack ☐ Angina ☐ Swelling in your legs or feet (not caused by walking) ☐ High blood pressure  
☐ Stroke ☐ Heart failure ☐ Heart arrhythmia (heart beating irregularly) ☐ Any other heart problem that you've been told about

6. Have you ever had any of the following cardiovascular or heart symptoms?

☐ Frequent pain or tightness in your chest ☐ Pain or tightness in your chest during physical activity ☐ Heartburn or indigestion that is not related to eating  
☐ Pain or tightness in your chest that interferes with your job ☐ In the past two years, have you noticed your heart skipping or missing a beat ☐ Any other symptoms that you think may be related to heart or circulation problems

7. Do you currently take medication for any of the following problems?

☐ Breathing or lung problems ☐ Heart trouble ☐ Blood pressure ☐ Seizures (fits)

8. If you've used a respirator, have you ever had any of the following problems?

☐ Eye irritation ☐ Skin allergies or rashes ☐ Anxiety ☐ General weakness or fatigue ☐ Any other problem that interferes with your use of a respirator

Signature \_\_\_\_\_ Date \_\_\_\_\_

Return this form to: Hall Health, Employee Health Nurse, Box 354410, Seattle, WA 98195-4410  
Write "**CONFIDENTIAL**" on the envelope

### **Zoonotic Diseases of Non-Human Primates (NHPs)**

***Macacine herpesvirus 1*** (formerly *Cercopithecine herpesvirus 1* [CHV-1], *Herpesvirus simiae*, monkey B virus)

This disease is extremely rare despite its high prevalence in the host species. Most macaques are asymptomatic carriers or display only mild oral lesions that are difficult to detect. Therefore, all macaques should be presumed to be shedding “B-virus”.

- Reservoir/source of infection to people: Macaques are the major source of infection; although other old world primates may be infected.
- Transmission: Transmission occurs via bites, scratches, splashes (any body fluid or secretion, feces) needlesticks, and other contact of mucous membranes or broken skin with infected body fluids from macaques or with wet, unfixed tissues or primary cell culture tissue material. Contaminated husbandry or research equipment can potentially spread B virus.
- Incubation period: Variable, but typically it is about 2-3 weeks.
- Disease in people: Early stage symptoms reported: unexplained febrile disease: fever, chills, nausea, vomiting, dizziness, and persistent headache. Occasionally, fluid filled vesicles can form near the skin wound. Symptoms of disease progression may include symptoms attributable to central nervous system infection, such as ascending encephalomyelitis, diplopia, seizures, and respiratory failure. Fatality rate is 46%. The fatality rate exceeds 80% when the exposure is not evaluated and treatment is not received.

**INJURIES OR MUCOUS MEMBRANE EXPOSURE REQUIRE IMMEDIATE FIRST AID!  
FOLLOW INSTRUCTIONS IN THE SCRUB KIT.**

#### ***Campylobacter***

Campylobacter is often called “campy.” It is a family of bacteria that infects the intestines. The disease is called campylobacteriosis.

- Reservoir/source of infection to people: humans, domesticated pets, farm animals and laboratory animals.
- Transmission: Fecal/oral
- Incubation period: One to seven days. Most people get better in two to five days, even without treatment. Some people can take up to ten days to get better. The bacteria are gone after two to three weeks if your illness is treated. If you do not treat your infection, the bacteria can stay in your body waste for up to three months. You can get sick again, and you can also infect other people.

- Disease in people: Mild to severe diarrhea, or bloody diarrhea, nausea and vomiting, stomach pain/cramping, fever, headache, and general malaise.

### ***Shigellosis***

*Shigella* is a significant cause of diarrhea in NHPs, and is a significant zoonotic disease that has frequently been transmitted from NHPs to man.

- Reservoir/source of infection to people: Humans are the main reservoir of disease, but infected monkeys can be a source of infection. Any NHP may harbor *Shigella* bacteria, and clinical signs may not be apparent.
- Transmission: Fecal/oral. The organism is shed from clinically ill as well as asymptomatic humans and NHP. Only minimal contact is necessary for transmission.
- Disease in people: Signs range from none to a severe diarrhea may be accompanied with blood or mucus. More commonly a mild diarrhea.

### ***Salmonella***

*S. typhimurium* & *S. enteritidis* have been associated most commonly with lab animal colony infections.

- Reservoir/source to people: Intestinal tract of NHPs
- Transmission: Fecal/oral
- Disease in people: Acute gastroenteritis with sudden onset of abdominal pain, diarrhea, nausea, and fever.

### ***Cryptosporidium***

Protozoal organism that is common in mammals, particularly younger animals.

- Reservoir/source of infection: Many mammals
- Transmission: Fecal/oral, contaminated water
- Disease in people: Self-limiting diarrhea except in immune compromised people where it can be quite severe. No treatment.

### ***Giardia***

This protozoan is found in many mammals.

- Reservoir/source: NHPs and other mammals
- Transmission of giardia: Fecal/oral, contaminated water
- Disease in people: Chronic intermittent diarrhea +/- other systemic signs such as malaise, anorexia, severe cramping and nausea/vomiting.



### ***Amebiasis***

- Reservoir and Incidence: Reported incidence of 0-31% in the feces of clinically normal rhesus monkeys and up to 30% in other NHP.
- Transmission: By ingestion of infective cysts. Laboratory animal personnel are usually infected from fecal matter transferred to the skin or clothing.
- Incubation period: Usually 2-6 weeks
- Disease in people: Most humans have few or no detectable symptoms. Mild watery diarrhea to acute fulminating bloody or mucoid dysentery with fever and chills. Disease may have periods of remission and exacerbation over months to years.

### ***Balantidiasis***

- Reservoir and Incidence: Distributed worldwide. Incidence in NHP colonies is 0 to 63%. Usually asymptomatic, but may see diarrhea.
- Transmission: Ingestion of cysts or trophozoites from infected animal or human feces. Cyst is the infectious form.
- Disease in man: Symptoms can include: ulcerative colitis, diarrhea, dysentery, nausea, vomiting, or abdominal pain. Severe cases may see blood &/or mucus in stool. Often see asymptomatic infections in humans.

### ***Tuberculosis***

Acquired from humans and then passed between NHPs. Secondary spread back to humans has been documented.

- Transmission: Primarily through the aerosol route. Exposure to dusty bedding of infected animals, coughing of infected animals, and aerosolization of the organism during sanitation procedures may also be sources of the disease in the lab environment. Contact with body fluids during necropsy may be a major mode of transmission to humans.
- Incubation period: About 2-10 weeks from exposure to skin-test positivity.
- Disease in people: Chronic cough, fatigue, fever, weight loss, and hemoptysis.

### ***Simian Retroviruses***

*Simian Retroviruses* include *Simian Foamy Virus (SFV)*, *Simian T-lymphotropic Virus (STLV)*, *Simian Type D Retrovirus (SRV)*, and *Simian Immunodeficiency Virus (SIV)*

A subclinical latent disease is most common with these retroviruses in primates although SRV and SIV may cause subclinical to fatal immunosuppressive disease. Additionally STLV can cause a rare lymphoproliferative disease or a rare T-cell lymphoma. No disease is associated with SFV infection. Transmission of these agents occurs through saliva (bites) or blood (needlesticks). In the case of SRV the virus can be transmitted by fomites. No human disease has been identified with these viruses, but some humans have developed antibodies to them, suggesting there could be replication in humans.

### ***Zika Virus***

The Zika virus is naturally transmitted by *Aedes* spp. mosquitoes or by sexual contact. Symptoms of Zika in adults are mild and limiting including fever, rash, joint pain, and conjunctivitis, however Zika can cause birth defects including microcephaly. While not commonly occurring in the US, Zika could be transmitted by blood products such as a blood transfusion. Transmission occurs via percutaneous (needlestick) or mucous membrane routes; it has not been found to be spread through inhalation of the virus. Persons with Direct contact (with agent or animals) must contact the Employee Health clinic for consultation (206-685-1026).

### **Methicillin-Resistant *Staphylococcus aureus* (MRSA)**

MRSA is a multi-drug resistant strain of *Staphylococcus aureus* that can cause severe disease in cases of immunosuppression or when there are breaks or damage to the skin. It can colonize healthy skin nasal cavities of human, primates, and many other domestic animals. MRSA skin infections in people from the bite of a MRSA-colonized primate have occurred although these are rare. MRSA can live on surfaces for an extended period of time, and can be transmitted indirectly. Therefore, it is essential to decontaminate any equipment used after working with animals that are colonized with MRSA.

### **Coccidioidomycosis (Valley Fever) and Trypanosomiasis (Chagas' disease)**

Coccidioides, a dimorphic saprophytic fungus that can cause pneumonia, dermatitis, and systemic disease in people (Valley Fever), and trypanosomes (such as *Trypanosoma cruzi*, protozoal parasites causing Chagas' disease in people), are both carried by some primates at WaNPRC. However the conditions indoors (in the vivaria) do not exist for either of these agents to infect people. Valley fever is infective only in its hyphae form that exists in the soil of dryer areas such as the southwest US. Chagas' disease is transmitted by the kissing bug, which lives across the southern United States, among other areas.

## Animal Contact Health Questionnaire

Confidential

Initial\_\_\_\_ Periodic\_\_\_\_

Name (Last, First, MI):	Employee ID number:	<input type="checkbox"/> Male <input type="checkbox"/> Female
Job title:	UW box number:	Work phone:
Department:	Supervisor/PI:	
Work location:	How many years have you worked in this position:	
Email (required):	Birthdate:	Today's date:

**All UW employees working in an animal care and use environment must complete at least one Animal Contact Health Questionnaire.** If you have not yet completed at least one AHA, you may not sign the declination below; please proceed to the next section.

**STATEMENT OF DECLINATION** *(Only those who have completed an AHA in the past may decline)*

I, \_\_\_\_\_ (print name), decline to participate in the UW animal use medical screening process. I understand that declining could lead to unforeseen medical concerns. I also understand that I can change my mind about participating by contacting an Employee Health Center nurse at 206.685.1026 or [emphlth@uw.edu](mailto:emphlth@uw.edu).

Employee signature: \_\_\_\_\_ Date: \_\_\_\_\_

**If you signed the declination above, do not complete the rest of the form.**

**I. LABORATORY ANIMAL USE** *Check all boxes that apply to your work situation.*

- ☐ I am working with live animals.
- ☐ I do husbandry (care of animals) and/or veterinary services.
- ☐ I do not work with animals, but work in an animal area.

Indicate the animals that **you work with or plan to work with:**

- ☐ Primates ☐ Birds ☐ Cats ☐ Dogs ☐ Ferrets ☐ Goats ☐ Pigs ☐ Sheep ☐ Rabbits ☐ Bats  
☐ Mice ☐ Rats ☐ Hamsters ☐ Guinea Pig ☐ Other (specify):

**II. ERGONOMICS**

- ☐ Yes I experience aches or pain when lifting, pushing, or carrying objects at work? If yes, explain:
- ☐ Yes I experience aches or pain when grasping or pinching objects at work? If yes, explain:
- ☐ Yes I experience aches or pain when reaching, bending, twisting, or kneeling at work? If yes, explain

<input type="checkbox"/> Yes <input type="checkbox"/> No	Did you inform your supervisor about the aches/pains you have at work?	
<input type="checkbox"/> Yes <input type="checkbox"/> No	Did you or your supervisor submit an OARS report?	
<b>III. ALLERGIES</b>		
<input type="checkbox"/> Yes	I have experienced shortness of breath, coughing and/or wheezing while working with or around animals.	
<input type="checkbox"/> Yes	I have experienced itchy or watery eyes and/or runny or stuffy nose while working with or around animals.	
<input type="checkbox"/> Yes	I have known allergies (animals or other). If checked, specify:	
<input type="checkbox"/> Yes	I have asthma.	
<input type="checkbox"/> Yes	My asthma symptoms are aggravated when working with animals.	
<input type="checkbox"/> N/A		
<input type="checkbox"/> Yes	I have skin problems related to work (e.g., rashes, reactions to latex).	
<input type="checkbox"/> Yes	I have regularly worn an N95 respirator or PAPR at work when working with animals.	
<b>IV. IMMUNIZATION HISTORY</b>		
<input type="checkbox"/> Yes	I have had a tetanus booster in the past 10 years. Specify the calendar year received:	
<b>V. MEDICAL HISTORY</b>		
<input type="checkbox"/> Yes	I have a chronic medical condition that requires medication.	
<input type="checkbox"/> Yes	I have you been told by my physician that I have an immune compromising medical condition.	
<input type="checkbox"/> Yes	I am taking medications that impair my immune system (e.g., steroids, immunosuppressive drugs or chemotherapy).	
<input type="checkbox"/> Yes	I have or have been told by my physician that I have a valvular or congenital heart condition.	
<input type="checkbox"/> Yes	I have a history of problems with my spleen or absence of my spleen.	
<b>VI. ADDITIONAL HEALTH CONCERNS</b>		
<input type="checkbox"/> Yes	I have health or workplace concerns (e.g. compassion fatigue) not covered by the questionnaire that may affect my occupational health, and I would like to discuss them with the Employee Health provider.	
<input type="checkbox"/> Yes	I have reproductive concerns I would like to discuss with the Employee Health provider.	
<input type="checkbox"/> Yes	I have answered the questions truthfully and to the best of my recollection.	
<b>VII. SIGNATURE</b>		<b>DATE:</b>
EHC USE ONLY - Reviewed by:		Initials
<input type="checkbox"/>	Entered into OHM	
<input type="checkbox"/>	Letter sent to employee	
Notes:		

Please return the completed form to the EH&S Employee Health Center (EHC) by either:

- Emailing as an attachment to [emphlth@uw.edu](mailto:emphlth@uw.edu)
- Faxing to 206.221.5110
- Sending to EHC in a sealed envelope marked "confidential" (UW Box 354400)