

**EXHIBIT 4**

Clinical Notes for Ruth

February 5-14, 2014

pp.9-13

Clinical Notes for Emily

January 10, 2017

p. 16 of 21

- page 1 -

**Medical History Report - Summary for Individual Specimen**  
**BUTTONWOOD PARK ZOO**

**ELEPHAS MAXIMUS** (no subsp)  
**Asiatic elephant**  
**Name: RUTH**

Sex: Female

Acc. #: 5

Age: 55Y 3M 28D

Birth: 29.Oct.1958

.....2014....

15.Jan Purpose/Problem: post hypothermia inflammation  
 Rx: DIMETHYL SULFOXIDE ml topically SID for 3 days.  
 Clinical note recorded. (MAS)  
 Clinical note recorded. (MS)

19.Jan Clinical note recorded. (LAS)

21.Jan Clinical note recorded. (MAS)

23.Jan Clinical note recorded. (LAS)

27.Jan Purpose/Problem: topical antibiotic  
 Rx: TRIPLE ANTIBIOTIC OINTMENT topically BID for 7 days. (1/4 inch)  
 Clinical note recorded. (MAS)  
 Clinical note recorded. (MS)

28.Jan Clinical note recorded. (LAS)

30.Jan Clinical note recorded. (MAS)

31.Jan Purpose/Problem: arthritis  
 Rx: GLUCOSAMINE 64gm PO BID until further notice.  
 Clinical note recorded. (MS)

3.Feb Purpose/Problem: topical antibiotic  
 Rx: TRIPLE ANTIBIOTIC OINTMENT topically BID for 4 days. (1/4 inch)  
 Clinical note recorded. (MS)

5.Feb Clinical note recorded. (MAS)

6.Feb Purpose/Problem: antibiotic \*\*\*\*\*Wear Gloves\*\*\*\*\*  
 Rx: SSD CREAM % topically SID for 7 days.  
 Clinical note recorded. (MAS)  
 Clinical note recorded. (MS)

7.Feb Clinical note recorded. (MAS)  
 Clinical note recorded. (MS)

10.Feb Purpose/Problem: antibiotic  
 Rx: ENROFLOXACIN 6.62gm PO SID for 6 days. (2 mg/kg)  
 Clinical note recorded. (MAS)

11.Feb Clinical note recorded. (MAS)

14.Feb Purpose/Problem: antibiotic plus  
 Rx: SSD CREAM % topically SID until further notice.  
 Clinical note recorded. (MAS)  
 Clinical note recorded. (MS)

15.Feb Purpose/Problem: antibiotic  
 Rx: ENROFLOXACIN mg PO SID until further notice. (2 mg/kg)  
 Clinical note recorded. (MAS)  
 Clinical note recorded. (MS)

16.Feb Clinical note recorded. (MAS)

17.Feb Clinical note recorded. (MAS)

18.Feb Clinical note recorded. (MAS)

19.Feb Clinical note recorded. (MAS)

24.Feb Clinical note recorded. (MAS)

Printed on: 25.Feb.2014

/ISIS/MedARKS/5.54.f

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*ELEPHAS MAXIMUS* (no subsp)  
 Asiatic elephant  
 Name: RUTH

Sex: Female                      Acc. #: 5  
 Age: 55Y 3M 28D              Birth: 29.Oct.1958

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**Clinical Note:**

5.Feb.2014

2/5/14: Annual Trunk Wash #1 for TB culture performed this morning.  
 Recheck: Ears have sloughed more dead skin and tissue underneath looks healthy. Left ear, ventral aspect is dry and curled upward. Moist area just above that appears less active today. Ventral edema appears reduced in cranial aspect. Vulva appears much less pendulous today. Two areas which previously erupted and were cultured continue to produce serous fluid. Areas behind knees which previously erupted and were cultured are no longer producing any fluid or exudate and do not appear swollen at this time. Tail where previously swollen and cultured is also no longer producing any fluid or exudate and is not swollen at this time. Tip of tail is getting dry and dark in color.

Previous cultures of vulvar fluid reveal *Citrobacter freundii*, *Alcaligenes faecalis*, resistant to SMZ and sensitive to enrofloxacin, as well as *Brevundimonas* (*pseudomonas*) *diminuta*, resistant to most antibiotics on panel, but sensitive to enrofloxacin.

Previous cultures of fluid from caudal aspect of knee reveal: Hemolytic staphylococcus, Beta-hemolytic streptococcus and 1 gram negative rod, all sensitive to enrofloxacin and sulfa.

Previous cultures of fluid from tail reveal: *Serratia marcesens*, *Klebsiella oxytoca*, 2 bio-types of *Staphylococcus aureus*, all sensitive to enrofloxacin. In addition a Beta-hemolytic streptococcus was also cultured which is sensitive to Sulfa.

CBC/Chem/UA: NSF.  
 Vit E/Selenium pending with Cornell.

A: Tissue on distal aspect of tail is presumably devitalized tissue and may slough.

**Plan:**

- 1.) Continue to monitor ear, tails, and vulva closely.
  - 2.) Apply Baytril (100mg/ml)/SSD(1%)/DMSO at a ratio 1ml Baytril/10mlSSD/1ml DMSO to lesions on vulva, tail and knee SID X 7 days. (MAS)
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- page 10 -

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ELEPHAS MAXIMUS (no subsp)  
 Asiatic elephant  
 Name: RUTH

Sex: Female                      Acc. #: 5  
 Age: 55Y 3M 28D              Birth: 29.Oct.1958

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**Clinical Note:**

6.Feb.2014

2/6/14: Annual Trunk Wash #2 for TB culture performed this morning. Skin on distal aspect of tail is sloughing in large pieces. Exposed tissue is dark red in color. No evidence of infection at this time. Keepers expressed large amount of malodorous exudate from tracts around vulva and flushed and applied SSD/Baytril/DMSO to tracts, tail, and behind knee in PM.

A: It remains to be seen whether this tissue will completely devitalize and if surgical amputation of tip of tail may be necessary. (MAS)

**Clinical Note:**

6.Feb.2014

Rx: SSD CREAM % topically SID for 7 days. (27758) (MS)

Purpose: antibiotic      \*\*\*\*\*Wear Gloves\*\*\*\*\*

**Prescription Data >>**

Starting date: 6.Feb.2014

Drug: SSD CREAM % topically SID for 7 days

Formulation: 10.0 mg/gm cream

Bottle/Lot #: 27758

Prescribed by: MS (6.Feb.2014)

Filled by: LAS (6.Feb.2014)

Treatment weight: 3311 kg

**Comments >>**

Topical treatment: Apply to to vulva, tail & knee  
 SSD, Baytril & DMSO Cream

**Daily Treatment Notes >>**

Date	Time	Success	By	Comments
6.Feb.2014	16:00	100%	SAM	
7.Feb.2014	16:00	100%	SAM	
8.Feb.2014	09:00	100%	SAM	
9.Feb.2014	09:00	100%	KVS	
10.Feb.2014	16:00	100%	KVS	
11.Feb.2014	09:00	100%	SAM	
12.Feb.2014	09:00	100%	SAM	
13.Feb.2014	09:00	100%	SAM	

Printed on: 25.Feb.2014

/ISIS/MedARKS/5.54.f

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ELEPHAS MAXIMUS (no subsp)  
 Asiatic elephant  
 Name: RUTH

Sex: Female                      Acc. #: 5  
 Age: 55Y 3M 28D              Birth: 29.Oct.1958

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**Clinical Note:**

7.Feb.2014

2/7/14: Annual Trunk Wash #3 for TB culture performed this morning. Skin on distal aspect of tail has sloughed. Exposed tissue is dark red in color. Tail appears swollen above the slough. Examined draining tracts opened up around vulva. One on right side is ~6cm in length is open at the top and bottom. Left side is open ventrally and appears to run in an arc in the area where a patch of skin is ready to slough. Exudate is present but was not particularly malodorous this morning.

**Plan:**

- 1.) Flush draining tracts with dilute chlorahex and then pack with SSD/Baytril/DMSO using an 18Fr red catheter. Then apply cream to skin around the vulva, as well as on tail and behind left knee.
- 2.) Start Baytril (136mg/tab), 2mg/kg: 6727mg, 50tablets PO SID X 7 days. (MAS)

**Clinical Note:**

7.Feb.2014

Rx: ENROFLOXACIN 6.62 gm PO SID for 7 days. (MS)

**Clinical Note:**

10.Feb.2014

2/10/14: Keepers report that ventral draining tracts continue to produce purulent material. Appetite is good. Still being kept in the barn in temps below 40F to prevent any further damage to exposed tissue on ears and tail. Received Baytril delivery, however, it is not enteric coated. Ruth did accept the Baytril this afternoon in cored apples.

Vit E/Selenium with cornell are WNL.

**Plan:**

- 1.) Continue to flush draining tracts with dilute chlorahex and then pack with SSD/Baytril/DMSO using an 18Fr red catheter. Then apply cream to skin around the vulva, as well as on tail and behind left knee. (MAS)

Purpose: antibiotic

**Prescription Data >>**

Starting date: 10.Feb.2014

Drug: ENROFLOXACIN 6.62 gm PO SID for 6 days

Formulation: 100.00 mg/ml tablet

Prescribed by: MS (7.Feb.2014)

Filled by: LAS (7.Feb.2014)

Drug dosage: 2 mg/kg

Treatment weight: 3364 kg

**Comments >>**

Printed on: 25.Feb.2014

/ISIS/MedARKS/5.54.f

Medical History Report - Individual Specimen  
BUTTONWOOD PARK ZOO

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<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: 5
Asiatic elephant	Age: 55Y 3M 28D	Birth: 29.Oct.1958
Name: RUTH		

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## Prescription Record (continued):

Tradename of drug used is BAYTRIL 136.

Originally prescribed for 7 days.

Discontinued on 12.Feb.2014 after 3 days.

ENROFLOXACIN = ENROFLOXACIN + STREPTOMYCIN SULFATE

## Daily Treatment Notes &gt;&gt;

Date	Time	Success	By	Comments
10.Feb.2014	12:00	100%	SC	
11.Feb.2014	:	0 %	SC	kk attempted many times

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**ELEPHAS MAXIMUS** (no subsp)  
**Asiatic elephant**  
 Name: RUTH

Sex: Female                      Acc. #: 5  
 Age: 55Y 3M 28D              Birth: 29.Oct.1958

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**Clinical Note:**

11.Feb.2014

2/11/14: Recheck skin and tissue on ventrum: Pitting edema seen cranial to vulva appears reduced in size. Tracts around vulva are producing a white fibrin material which is not malodorous and appears similar to the material that filled in defects on ears. A large area of skin looks like it will eventually slough off. Approximately 5cm of distal aspect of tail appears dead. It is hard and dry at this time. Soft tissue above this region remains swollen.

Ruth refused the Baytril tabs today presumably because there are not enteric coated and she could smell or taste the medication. We have some enteric coated tablets in-house, however, not enough to provide a single dose. Called all local veterinary hospitals as well as large animal hospitals and Roger Williams Zoo for enteric coated tabs. No one had even a single full dose.

**Plan:**

- 1.) Staff instructed to monitor tail for evidence that the dead area is moving proximally as well as monitor size and color of swollen area.
- 2.) Staff instructed to try one enteric coated tab in-house to see if she will take it and if so, order 68mg enteric coated tablets.
- 3.) Instructed keepers to continue flushing and packing tracts as long as they remain open, but not to force them to stay open if they are healing.
- 4.) Reassess next week. (MAS)

**Clinical Note:**

14.Feb.2014

2/14/14: Received a call from Shara today regarding swelling on tail and plan. Explained that plan was to have Ruth on Baytril and monitor tail and that I had discussed with staff the possibility of an amputation once it is determined exactly where to perform it and once she is receiving the Baytril as prescribed. Discussed inquiring with Dr. Ryer as he has performed a partial tail amputation on Ruth in the past and has a previous relationship with her as one of her previous caretakers. Shara advised that Baytril was still not here so Ruth still has not received Baytril as prescribed. (MAS)

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Animal Type	GAN	Preferred ID	Taxonomy	Sex	Birth Date
Individual	4418908	4	Elephas maximus/Asian elephant	Female	~ from Jan 01, 1984 to Dec 31, 1984

Calendar Items			
Date	Title	Assigned To	Done
~	~	~	~

### Sample

<b>Sample Detail</b> Collection Date/Time Feb 01, 2017 00:00 Sample Type Serum Anatomical Source/Tissue ~ Collection Method Phlebotomy Collected By Shelley Avila-Martins Reason ~ Exclude from reference intervals No		<b>Sample Quality</b> Color ~ Color Intensity ~ Clarity ~ Additional Characteristics ~ Degraded No
<b>Initial Holding Conditions</b> Initial Holding Temp. ~ Initial Holding Duration ~		<b>Pre-Sampling Conditions</b> Fasting Duration undetermined Restraint Type Physical Activity Undetermined

Sample History			
Date	Sample ID / Sample GSN	Status	Laboratory / Test Order / Test Results
Feb 01, 2017	~S-PGW17-003286	Available	~/-/~

Notes  
~

Calendar Items			
Date	Title	Assigned To	Done
~	~	~	~

### Jan 31, 2017

### Clinical Note

Date	Time	Note Author
Jan 31, 2017	09:45	Marcy Cocchiola
Significant	Private	Active Problems
No	No	~
Note Subtype: General		
Notes/Comments		
Laser therapy 3 Joules to left ankle		
Animal Care Staff Medical Summary		
~		

Calendar Items			
Date	Title	Assigned To	Done
~	~	~	~

### Clinical Note

Date	Time	Note Author
Jan 31, 2017	00:00	Whitney Greene
Significant	Private	Active Problems
No	No	~
Subjective		
Animal presented for first of three trunk washes		
Objective		
Animal is BAR and eager to participate		

Report Start Date  
Dec 31, 2016

## Medical History Report for All Record Types

Report End Date  
Feb 23, 2017 360

Animal Type	GAN	Preferred ID	Taxonomy	Sex	Birth Date
Individual	4418908		Elephas maximus/Asian elephant	Female	~ from Jan 01, 1984 to Dec 31, 1984

## Calendar Items

Date	Title	Assigned To	Done
~	~	~	~

## Test Results

## Test Request Detail

Date Requested Jan 10, 2017  
 Requested By Whitney Greene  
 Laboratory IDEXXUSA  
 Analysis Start Date Jan 13, 2017  
 Analysis Equipment ~  
 Insufficient Sample No

## Sample Quality

Color ~  
 Color Intensity ~  
 Clarity ~  
 Consistency ~  
 Additional Characteristics ~  
 Degraded No

## Notes/Comments

Aerobic and Anaerobic culture results: Hemolytic Staphylococcus sp 3+ (not S aureus) NOT methicillin resistant

## Test Requests &amp; Test Results

Test	Primary Result	Low RI	High RI	Evaluation	Excl'd. from RI	Reviewed
Bacterial culture	Taxon Result	~	~	~	~	~

## Sample Detail (GSN: 8-PGW17-003284)

Collection Date/Time Jan 09, 2017 00:00 Collection Method ~  
 Sample Type Cell culture Collected By Whitney Greene  
 Anatomical Source/Tissue Skin Reason ~  
 Additives/Preservatives ~ Exclude from reference intervals No

Jan 09, 2017

## Clinical Note

Date Time Note Author  
 Jan 09, 2017 00:00 Whitney Greene  
 Significant Private Active Problems  
 No No ~

## Subjective

Animal presented after keepers found two more skin lesions with white exudate

## Objective

Animal is BAR, she has been eating, drinking and acting well per keepers. There are two additional lesions found this morning during her wash. One lesion is on the left side of her face just ventral and lateral to the eye. There is white-yellow purulent exudate with a foul smell and dried debris as well. The lesion is about 2.0 x 1.0 cm with granulation tissue along the perimeter. Another lesion is found on the left body wall, about 4.0 x 3.5 cm with purulent exudate but no odor association.

Both lesions were flushed with saline and debrided. Dilute chlorhexidine was used to flush both new lesions and then SSD was applied topically

A culture was collected from the lesion on the left side of the face and sent to IDEXX for aerobic and anaerobic culture and sensitivity --&gt; pending

## Assessment

Ingrown hair/other foreign body vs infection (bacterial vs fungal) vs primary dermatologic

## Plan

1. Clean all lesions using saline, dilute chlorhexidine, and topical SSD BID x seven days
2. Bath to be given with dilute Pharnaseb shampoo and thorough scrub down tomorrow
3. Consider oil application following bath
4. Continue to monitor daily

Written by WG

## Animal Care Staff Medical Summary

Animal Type	GAN	Preferred ID	Taxonomy	Sex	Birth Date
Individual	4418905	4	Elephas maximus/Asian elephant	Female	~ from Jan 01, 1964 to Dec 31, 1964

Date	Title	Assigned To	Done
~	~	~	~

#### Sample

Sample Detail		Sample Quality	
Collection Date/Time	Jan 09, 2017 00:00	Degraded	No
Sample Type	Cell culture		
Anatomical Source/Tissue	Skin		
Collected By	Whitney Greene		
Reason	~		
Exclude from reference intervals	No		

Date	Sample ID / Sample GSN	Status	Laboratory / Test Order / Test Results
Jan 09, 2017	~S-PGW17-003284	Available	IDEXXUSA/1/1

Notes
~

Date	Title	Assigned To	Done
~	~	~	~

#### Clinical note

Date	Time	Note Author
Jan 08, 2017	00:00	Whitney Greene
Significant	Private	Active Problems
No	No	~

#### Subjective

Animal presented due to a facial lesion noted by keepers

#### Objective

There is a small circular lesion (2.0 x 3.0 cm) lesion on the right side of the animals face just underneath the eye in the middle of a fold of skin. There is a mild amount of yellow-white purulent exudate and a small scab comes off during palpation and has a foul odor to it. The lesion was flushed with dilute chlorohexidine using a curved-tip syringe and some additional purulent exudate was removed (mostly dried). Underneath the dried material the skin is reddish pink with a short tract extending upward. There is granulation tissue around the entire perimeter of the lesion. The area and tract was flushed out thoroughly, debrided, and topical SSD was applied to and around the lesion.

#### Assessment

Abscess/foreign body vs trauma vs. dermatological

#### Plan

1. Clean with dilute chlorohexidine using a curved-tip syringe and topically apply SSD BID for seven days
2. Daily checks to monitor healing or progressive signs

Written by WG

#### Animal Care Staff Medical Summary

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Date	Title	Assigned To	Done
~	~	~	~

#### Prescription/Treatment