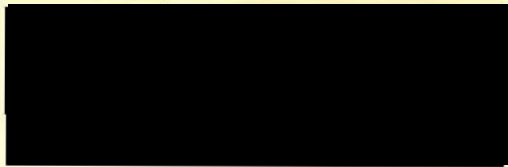


Pelio 1947.



Alex.



white; 0: 13 yrs.

adm. 8/28/47.

Onset: 8/27/47.

History: C.C. Stiff neck.  
at 2<sup>00</sup> pm. 8/27/47, he suddenly felt nauseated, having been perfectly well previously. At 4<sup>00</sup> pm. generalized headache appeared and that evening he felt feverish. No emesis. Slept fitfully and awoke at 3<sup>00</sup> A.M. on 8/28/47 complaining of stiff neck + sore back. - Headache subsided just prior to admission. -

Admission Exam: T. 99°. Marked nuchal rigidity; marked back stiffness and hamstring spasm. - Positive Kernig. - NO evident weakness or paralysis.

<u>CSF:</u>	<u>cells.</u>	<u>lymphs</u>	<u>Polyp</u>	<u>Globulin</u>
8/28/47.	27	37%	65%	+

Notes: 8/28/47. - No change in A.M.; hot in p.m. The Temp. rose to 100°, and there was some difficulty in swallowing. By evening definite bulbar involvement; - Extremities + resp. muscles O.K. - NOT eating by mouth.

8/29/47. - Temp. up to 102°; pt mod-toxic. Pronounced bulbar type. Extremities and resp. muscles O.K. - Neck, back + hamstring still quite stiff; complaining of pain in rt. shoulder muscles, but no weakness can be detected. - NOT eating. No respiratory difficulty.

<u>OP Swab</u>	<u>Stools</u>
8/28	✓ -
8/29	✓ Lt. Brown enema; poor; some sediment.
8/30	✓ Clear enema.
8/31	✓ Lt. Brown enema; some sediment.

JAN 7 1948

A. Stools Material -

Consisted of  $\pm 100$  cc. of brownish translucent fluid  $\pm 1\%$

"Blended" at low speed for one minute. -

NO material refrozen. -

For intranasal — 30 cc.

1-8-48 - Etherized 70 cc. of susp. with 14.0 cc., shaken for 10 minutes and refrigerated overnight. -

1-9-48 - Centrifuged 30 minutes - horizontal

Final Amt of Supernatant = 60 cc.

Culture:  $\frac{1}{8}$  col. - (Gm. mean = morphology similar to *S. typhi*)

JAN 7 1948

JAN 7 1948

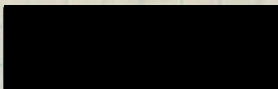
B. Pharyngeal Swab Material -

Swabs plus 0.6 cc Buffer #1 = 2.7 cc  
Buffer #2 0.6 cc

1.0 cc Ether Added; shaken 10'; refrigerated overnight, 3.3 cc

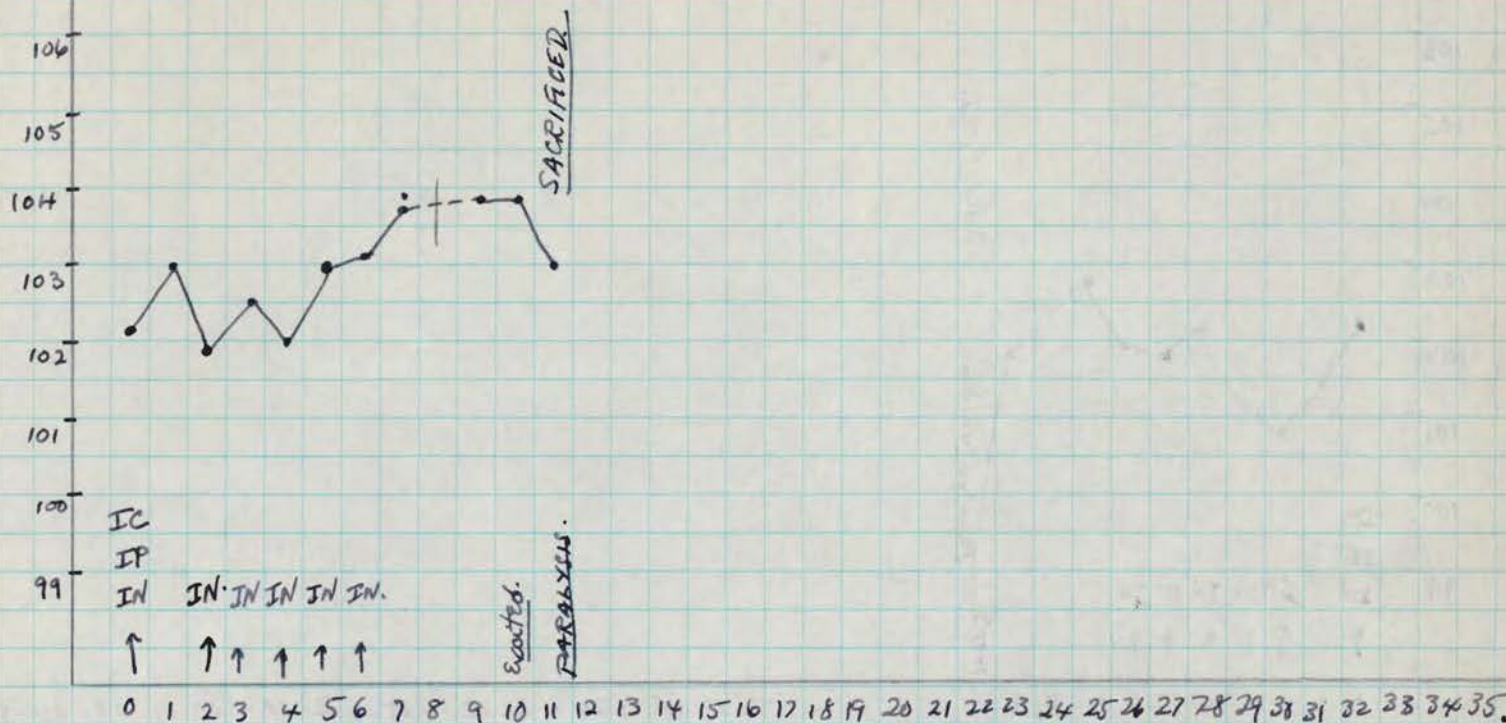
1-8-48. Centrifuged 15' on horizontal. -  
Cultured: ✓

JAN 10 1948



Treated pharyngeal swabs I.C. Cult.  
 Treated stools IP. \* 1 col. "B. Swartz's" type  
 Untreated stools IN

Rhesus # 89-



1-10-48 - inoculated 1.5 cc I.C.; 1 cc per nostril; and 25.0 cc IP together with 50,000  $\mu$  of penicillin.

1-12-48 - Mod. diarrhea noted.

1-27-48 - Pilomotor response; easily exhausted;

A.M. - Partial paralysis of rt. upper and of both lowers; still has pilomotor response; cranial nerves appear intact. - Sacrificed (chloroform).  
 Autopsy: no gross TBC. -

COLON CONTENT: frozen in histeroid tube (B-3-3)

TISSUE FOR PATHOLOGY: cord levels: medulla; olfactory bulbs (2-A)

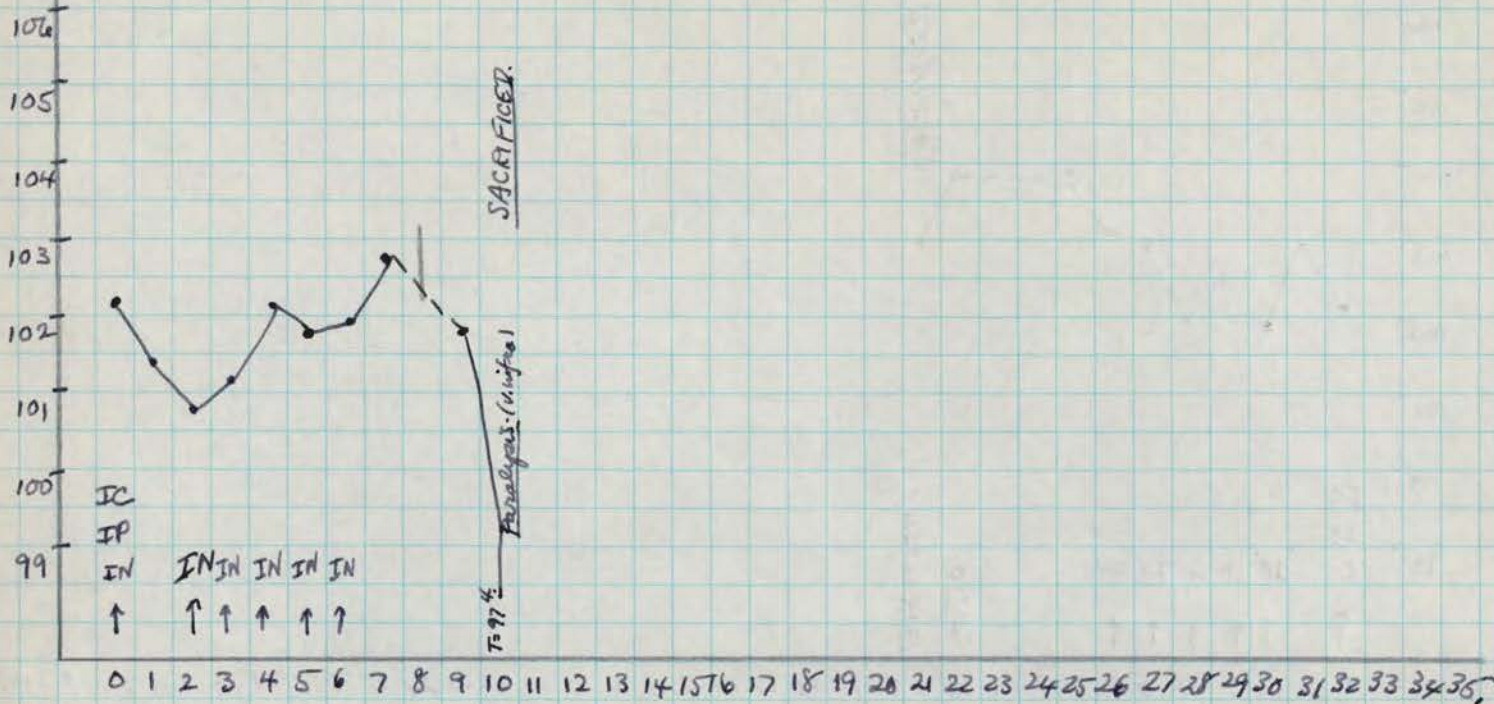
TISSUE FOR VIRUS: cord - medulla frozen in histeroid (d-9)

1-27-48 cord and medulla pooled with that of Cyn # 88 (ovuleaf); pooled weight: 7.0 gms. made up as 20% susp. in (28.0 cc saline);  $\pm$  25.5 cc of suspension frozen in 3-20 cc ampoules. (B-3-5)  
Culture: S/S

Histology - Polio

JAN 10 1948

CYNOMOLGUS # 88



1-10-48. Inoculated 1.5 cc IC; 1 cc per nostril; and 25.0 cc IP together with 50,000  $\mu$  of penicillin.

1-15-48 - Mod. severe diarrhea.

1-20-48 - Paralysis - complete of left upper; partial rt. upper + both lowers, marked weakness of back; cranial nerves appear intact.

Sacrificed (chloroform) - Autopsy: no gross TB.

COLON CONTENTS: frozen in hysteroïd (B-3-2) - N.B. frozen; material still solid; on 7/20/48 hysteroïd found

TISSUE FOR PATHOLOGY: cord levels; medulla; Thalamus; Hypothalamus and olfactory bulbs. (Z-A1) - Transferred to another hysteroïd tube.

TISSUE FOR VIROS: cord. medulla frozen in hysteroïd. (d-2)

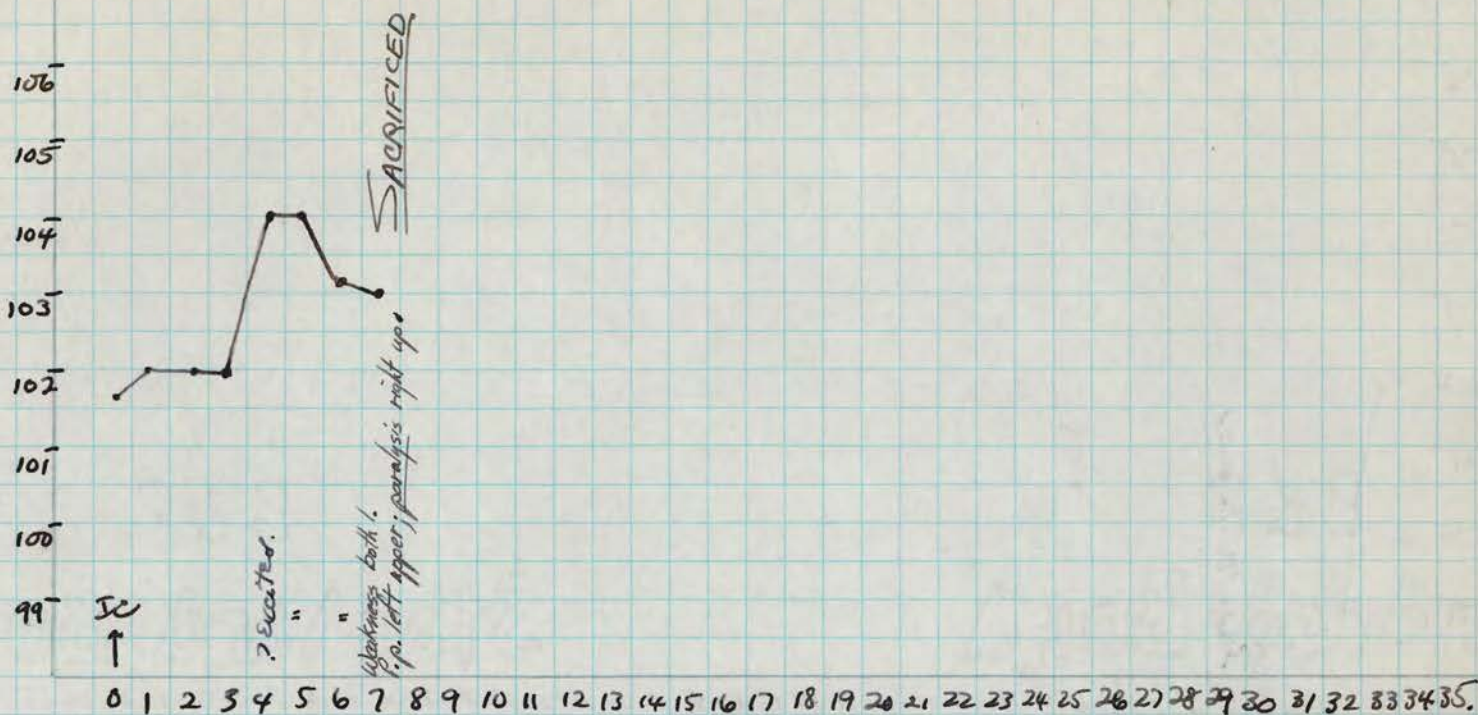
1-27-48 - Thawed; pooled c Rh. 89 (see over)

Histology - Polio

FEB 27 1948

STRAIN - Generation II

Rhesus #153-



2-27-48. Inoc. IC with 1.0 cc of 28% in saline [redacted] virus - Gen II

3-2-48: Questionably excited Temp. = 104.

3-3-48: Excited. Temp. = 104.

3-4-48: " Temp. = 103.5

3-5-48 AM Temp = 103. Paralysis rt. up; par. par. left up; weakness both l.

Sacrificed: Chloroform-exasanguination. No gross tbc.

TISSUE FOR HISTO: Sections of cervical & lumbar cord. (Z-A)

TISSUE FOR VIRUS: Remainder of cord and medulla made up as a 20% suspension in (20 cc.) sterile saline. WT of cord = 4.7 gms.

± 17% of suspension frozen in 2 x 20 cc amp. stored (B-3-9)

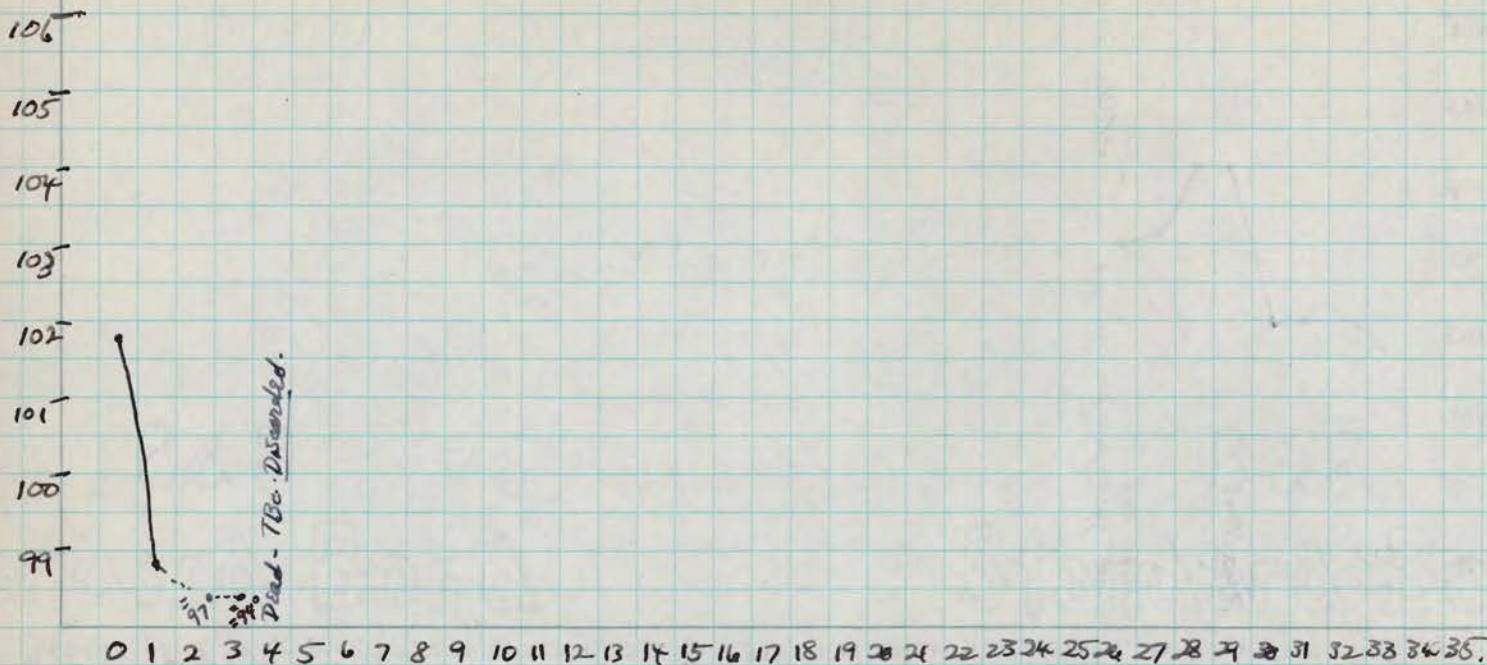
Culture: ✓✓

Histology - Polio

FEB 27 1948

STRAIN- Generation II

Rhesus #154



2-27-48. - (Inoc. I.c with 1.0 cc of [redacted] Virus (20% in saline) - Gen 7

2-28-48. - Mod. diarrhea noted.

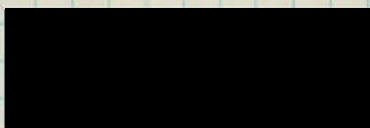
2-29-48. - Mod. diarrhea continues.

3-2-48: Found dead in cage.

AUTOPSY: Widespread advanced pulmonary th. Spleen and lymph nodes similarly involved. Discarded.

TITRATION OF HUMAN POLIO STRAINS —

4-19-48:



STRAIN (Gen. ii)

VIRUS USED: [redacted] strain polio (gen ii in monkeys) 20% in saline diluted in saline as indicated below.

MONKEYS USED: 3 splenectomized (in  $10^{-2}$ ) and 9 other normal rhesus monkeys.

MIXTURES USED: Dilutions, as indicated below, made up in saline, kept at room temperature (72°F.) for one hour; then into refrigerator overnight for about 15 hours; then into ice bath during inoculations on 4-20-48.

INOCULUM: 0.5 cc intracerebrally per monkey. 4-20-48.

DILUTION	MONKEY #	CLINICAL FINDINGS	HISTOLOGICAL FINDINGS	RESULT
$10^{-2}$	Rh 1813	D3	0	2/3
	Rh 1846	P14 K14	+	
	Rh 1810	P9 K9.	+	
$10^{-3}$	Rh 346	F15 No Paralysis. K28.	+ Polio "old and nod- Erythrocytes"	2/3
	Rh 347	D20	0	
	Rh 348	P10 K10	+	
$10^{-4}$	Rh 352	0 K28	0	0/3
	Rh 359	D27 (diarrhea)	0	
	Rh 361	0 K28	0	
	Rh 340	D14	0	
$10^{-5}$	Rh 357	0 K28	0	0/3
	Rh 358	0 K28	0	

APR 20 1948

TITRATION - GENERATION  $\frac{11}{11}$ 

RH. 1813 - Splenectomized

10-2

DATE	DAY	REMARKS
4-20-48	0	✓
	1	✓
	2	✓
	3	Found DEAD in cage. Autopsy: No evidence of cervical vertebrae fracture. Negative thorax. Abdominal wall markedly distended & edematous. Severe gastric distension (ingested material) and distension of large bowel (gas). No evidence of peritoneal or int. mucosal inflammation. Mesenteric nodes not remarkable. Fluid not found in the peritoneal cavity.

TISSUE FOR SECTION: Hypothalamus, thalamus, midbrain,  
(2) pons, (2) medulla, cord levels. (I-A)

HISTOLOGY:

→ Above sections show no pathological changes.

DIAGNOSIS: NO EVIDENCE FOR POLIO

APR 20 1948

TITRATION - GENERATION  $\bar{t}$ 

RH. 1846 - Splenectomized

10<sup>-2</sup>

DATE	DAY	REMARKS
4-20-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓ T=102 <sup>8</sup>
	10	✓ T=103 <sup>2</sup>
	11	✓ T=102 <sup>2</sup>
	12	? Chummy T=103 <sup>2</sup>
	13	Chummy. Weakness all 4 extremities. ? left foot drop. T=101 <sup>2</sup>
	14	T=101 <sup>2</sup> Definite left foot drop. Weakness of all 4 extremities. Very chummy. <u>SACRIFICED:</u> (chloroform-exsanguination) Autopsy: No gross the. TISSUE FOR SECTION - Portions of lumbar and cervical cord. (2-A) TISSUE FOR VIRUS - Remainder of cord-medulla pooled with those of Rh 1810 and Rh 348 to make a 20% suspension in (48 cc.) sterile saline. Wt. of pooled cords and medullae = 11.8 gms. ± 42cc. frozen in 4-20cc amp (Vials 1, 2, 3, 4) and stored. Culture: ✓✓✓ B-3-1

HISTOLOGY:

Distinct acute neuronophagia (with PV infiltration also) in lumbar and cervical cord - much more so in lumbar.

DIAGNOSIS: POLIO - Acute

APR 20 1948

TITRATION - GENERATION II

RH. 1810 - Splenectomized

10<sup>-2</sup>

DATE	DAY	REMARKS
4-20-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	P.M.: P.M.: T=104 <sup>2</sup> . Clumsy, excited, occ. tremors.
	9	A.M.: T=102. Partial paralysis both lowers and rt. upper. Weakness left upper.

8 P.M.: P.M.: T=104<sup>2</sup>. Clumsy, excited, occ. tremors.  
 9 A.M.: T=102. Partial paralysis both lowers and rt. upper. Weakness left upper.

SACRIFICED: (choroform-exsanguination) Autopsy: No gross etc.

TISSUE FOR SECTION - Portion of lumbar and cervical cord (L-A)

TISSUE FOR VIRUS - 1) Half of remainder of cord-medulla cut into pieces and put into glycerin for Dr Debré.

2) Remainder frozen in a lusteroid tube. (L-1)

5-4-48: Cord-medullae of Rh 1810 thawed and pooled with those of Rh 348 and Rh 1846 (see latter).

HISTOLOGY: Acute neurophagia and PV infiltration.

DIAGNOSIS: POLIO (acute)

APR 20 1948

TITRATION - GENERATION  $\frac{11}{11}$

RH. 346

10<sup>-3</sup>

DATE	DAY	REMARKS
4-20-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓ T=103 <sup>6</sup>
	15	T=104 <sup>6</sup> Excited.
	16	T=103 <sup>2</sup> " ? pilomotor response.
	17	T=102 <sup>4</sup> ✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	Thin; passive; generally weak.
	24	seems a little better.
	25	still better.
	26	unchanged.
	27	unchanged.
5-18-48	28	"

SACRIFICED (chloroform-exsanguination)  
TISSUE FOR SECTION Single sections of lumbar  
 thoracic, cervical, medulla, midbrain, thalamus (2A)  
AUTOPSY: No gross etc

Histologic Exam:

- Lumbar Cord (2): - Root degeneration (unilateral), neuronal loss; glial proliferation.
- Thoracic Cord (2): - Glial reaction; neuronal outfall.
- Cervical Cord (2): - " " " "
- Medulla (2): - Neuronal outfall; glial foci; Pt.
- Midbrain (1): - Pt; one tiny glial nodule.
- Thalamus (1): - Pt; two glial nodules.

Diagnosis: Poliomyelitis - "old and moderately old"  
 (non-paralytic)

APR 20 1948

TITRATION - GENERATION 11

RH. 347

10<sup>-3</sup>

DATE DAY REMARKS

4-20-48

0

✓

1

✓

2

✓

3

✓

(Severe diarrhea)

4

✓

5

✓

Still has diarrhea.

6

✓

Diarrhea

7

✓

8

✓

9

✓

10

✓

11

✓

12

✓

13

✓

14

✓

T = 100<sup>2</sup>

15

✓

16

✓

17

✓

18

Is very thin; generally weak and passive; no focal weakness.

19

unchanged

20

Found DEAD in cage. Autopsy: No gross thoracic or abdominal pathology. No evidence of strangulation, or of cervical vertebrae fracture.

TISSUE FOR HISTOPATHOLOGY - Thalamus, hypothalamus, midbrain, pons, medulla, cord (levels 2A)

Histology:Lumbar Cord (5); Thoracic Cord (11); Cervical Cord (6); - all negative  
Medulla (2); Medulla-Pons (1); Midbrain (1); Thalamus (1);  
all negative.Diagnosis: No polio.

APR 20 1948

TITRATION - GENERATION  $\frac{11}{11}$ 

RH. 348

10<sup>-3</sup>

DATE	DAY	REMARKS
4-20-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	

~~4~~ A.M. - T=100<sup>°</sup>. Par. par. both lowers. Weakness both uppers, back.

SACRIFICED: (chloroform-exsanguination)

Autopsy - No gross tocs.

TISSUE FOR SECTION - Portion of lumbar and of cervical cord. (2-A)

TISSUE FOR VIRUS: - Remainder of cord-medulla frozen in a (c-8) Listeroid tube.

5-4-48: Cord-medulla of Rh 348 thawed and pooled with those of Rh 1810 and Rh 1846 (see latter).

HISTOLOGY:

lumbar and cervical cord show acute widespread neurophagia.

DIAGNOSIS: POLIO - Acute

APR 20 1948

TITRATION - GENERATION  $\frac{11}{11}$ 

RH. 352

10<sup>-4</sup>

DATE	DAY	REMARKS
4-20-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	mod. diarrhea
	24	" "
	25	" "
	26	" "
	27	✓
5-18-48	28	✓ SACRIFICED (chloroform - exsanguination) AUTOPSY: No gross the.

TISSUE FOR SECTION

Single sections of lumbar, thoracic, cervical medulla, &amp; midbrain, thalamus (Z.A)

Histology:

Lumbar Cord (1); Thoracic (1); Cervical (2); all negative.  
 Medulla (5) - one level only shows a cuffed vessel;  
 Midbrain (1); Thalamus (1) - negative.

DIAGNOSIS: No Polio.

APR 20 1948

TITRATION - GENERATION  $\frac{ii}{ii}$ 

RH. 359

 $10^{-4}$ 

DATE	DAY	REMARKS
4-20-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓ mod. diarrhea; thin.
	24	" " "
	25	" " " ; passive.
	26	quite thin and weak all over.
5-17-48	27	DEAD: Autopsy: no obs. - TISSUE FOR PATHOLOGY: lumbar; Thoracic, cervical cord; medulla; pons; midbrain; Thalamus. (ZA)

HISTOLOGY:

lumbar cord (4); Thoracic (5); Cervical (8); - negative.  
Medulla (2); Midbrain (1); Thalamus (1) - negative.

DIAGNOSIS: NO POLIO.

APR 20 1948

TITRATION - GENERATION

11

RH. 361

10-4

DATE	DAY	REMARKS
4-20-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓ mod. diarrhea; Thin.
	24	a little better today.
	25	better today.
	26	unchanged.
	27	unchanged.
5-18-48	28	Thin; mod. diarrhea.

SACRIFICED (chloroform - exsanguination) AUTOPSY: No gross the  
TISSUE FOR SECTION Single sections of lumbar, thoracic, cervical  
 medulla, midbrain, thalamus (Z.A.)

HISTOLOGY:

Lumbar Cord (2); Thoracic (1); Cervical (1); Medulla (2);  
 Midbrain (1); Thalamus - Hypothalamus - All negative.

DIAGNOSIS: NO POLIO



APR 20 1948

TITRATION - GENERATION  $\frac{11}{1}$ 

RH. 357

10-5

DATE	DAY	REMARKS
4-20-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
5-18-48	28	✓

SACRIFICED (chloroform-exsanguination) Autopsy: No gross the  
TISSUE FOR SECTION Single sections of lumbar, ~~thoracic~~, cervical  
 medulla, midbrain, thalamus (Z.A)

HISTOLOGY: Above single sections — negative.

DIAGNOSIS: No polio

APR 20 1948

TITRATION - GENERATION 11

RH. 358

10-5

DATE	DAY	REMARKS
4-20-48	0	✓
	1	✓
	2	✓ (Bilateral conjunctivitis) → Direct smear shows very small (6m) rods, numerous pus cells.
	3	Same. T=103°
	4	" T=102°
	5	✓ Eyes a little better.
	6	✓ " definitely improved. T=103°
	7	✓ " " " T=103°
	8	✓ " " " "
	9	✓ " " " T=101°
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
5-18-48	28	✓ SACRIFICED (chloroform-exsanguination) Autopsy No growth TISSUE FOR SECTION Single sections of lumbar, thoracic cervical, medulla, midbrain, thalamus. (I.A)

Histology:

Single sections as above. Examined = Negative.

Diagnosis: No Polio.

# NEUTRALIZATION TESTS IN MONKEYS

STRAIN POLIO vs. [REDACTED]

SERA.

**MAY 18 1948**

VIRUS USED: Generation ii of [REDACTED] strain polio — filtered on 4-20-48.

SERA USED: Two sera from Med. [REDACTED] Ind.  
 Acute: — 8/28/47 (16<sup>th</sup> day of illness)  
 Convalescent: — 11/24/47 (95<sup>th</sup> day of illness)

INCUBATION: Serum-virus mixtures at room temperature (76°F.) for one hour — then into refrigerator over night (15 hours) — then into ice bath during inoculations on 5-19-48.

MONKEYS: Normal rhesus; 3 per indicated final dilution. (NEIP-Farm.)

INOCULUM: 0.5 cc. IC.; serum-virus and <sup>virus</sup> serum-saline as indicated below.

## FINAL VIRUS CONCENTRATIONS:

	10 <sup>-1</sup>	10 <sup>-2</sup>	10 <sup>-3</sup>	10 <sup>-4</sup>
Saline control		Rh 460 <sub>P<sub>8</sub></sub>	Rh 462 <sub>P<sub>9</sub></sub>	Rh 465 <sub>D<sub>10</sub> + tests</sub>
		Rh 461 <sub>P<sub>8</sub></sub>	Rh 463 <sub>P<sub>11</sub></sub>	Rh 466 <sub>O, K<sub>28</sub></sub> ○
			Rh 464 <sub>P<sub>12</sub></sub>	Rh 467 <sub>O, K<sub>28</sub></sub> ○
Acute serum	Rh 468 <sub>O, K<sub>28</sub></sub> ○	Rh 471 <sub>D<sub>8</sub></sub> ○		
	Rh 469 <sub>O, K<sub>28</sub> "ds"</sub> +	Rh 472 <sub>P<sub>13</sub></sub> ○		
	Rh 470 <sub>O, K<sub>28</sub></sub> ○	Rh 473 <sub>O, K<sub>28</sub></sub> ○		
Convalescent serum	Rh 474 <sub>P<sub>10</sub></sub> ○	Rh 477 <sub>O, K<sub>28</sub></sub> ○		
	Rh 475 <sub>O, K<sub>28</sub></sub> ○	Rh 478 <sub>D<sub>25</sub></sub> ○		
	Rh 476 <sub>O, K<sub>28</sub></sub> ○	Rh 479 <sub>O, K<sub>28</sub></sub> ○		



MAY 19 1948

Rh 461.

Saline control  $10^{-2}$ 

DATE DAY REMARKS

5-19-48

0

✓

5-20-48

1

✓

5-21-48

2

✓

3

✓

4

✓

5

✓

6

✓

7

✓

5-27-48

8

Part. par. rt. lower; weakness after 3 extremities; coarse tremors.

9.

SACRIFICED (chloroform-exsanguination) to gross the.  
 TISSUE FOR SECTION - Single sections of lumbar  
 and cervical cord. (Z-A)

TISSUE FOR VIRUS - Remainder of cord-medulla  
 frozen in a kisteroid tube. (A-6)

5-28-48: Cord-medulla of Rh 461 thinned and pooled with  
 that of Rh 462 to make a 20% susp. in  
 (36 cc) of sterile saline. ~~to be frozen in~~  
 Wt. of pooled cords-medullae = 9.0 gms.  $\pm$  33 cc.  
 frozen in 3-20 cc amps (lots 1, 2, 3) and  
 stored. Culture: ✓✓✓ B-2-5

11-19-48 Tissues for section discarded

MAY 19 1948

Rh 462

Saline control  $10^{-3}$ 

DATE	DAY	REMARKS
5-19-48	0	✓
<del>5-20-48</del>	1	✓
<del>5-21-48</del>	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8.	✓ Diarrhea. ? excitement (P.M.)
5-28-48	9.	Part. par. both uppers; weakness both lowers; neck; back. <u>SACRIFICED</u> (chloroform - exsanguination) Autopsy: No gross thc. TISSUE FOR SECTION - Single sections of lumbar and cervical cord (Z-A) TISSUE FOR VIRUS - Remainder of cord-medulla pooled with that of Rh 461 to make a 20% susp. in saline. (See Rh 461) <u>11-19-48</u> tissues for section discarded

MAY 19 1948

HOMOLOGOUS NEUTRALIZATION TEST

Rh 463.

Saline control

10<sup>-3</sup>

DATE	DAY	REMARKS
5-19-48	0	✓
5-20-48	1	✓
5-21-48	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
5-27-48	8	Swire Diarrhea.
5-28-48	9	Better today.
	10	✓
5-30-48	11	Part. par. left lower.
5-31-48	12	Par. par. left lower; weakness of other 3 exten; ptarm.; tremors.
6-1-48	13	Par. par. both lowers; " " both uppers.
6-2-48	14	Comp. par. both lowers; " " " " " "
6-3-48	15	No change
	16	" "
	17	" "
	18	No change.
	19	" "
6-8-48	20	Part. par. of left lower. Part par of right lower, Weakness of uppers
	21	No change
	22	" " <u>6-10-48</u> Bled for serum.
	23	" "
	24	" "
	25	No change noted.
6-14-48	26	Compl. par. l. lower; part. par. rt. lower; weakness both uppers.
	27	No change
	28	" "
6-17-48	29	Compl. par. left lower, Part par. right lower.
		<u>6-19-48</u> Bled for serum.
7-6-48		No change
7-16-48		" "
7-22-48		" " <u>7-19-48</u> Bled for serum
8-5-48		Compl. par. left lower; Part. Par. right lower
8-20-48	93	No change <u>8-19-48</u> Bled for serum
8-21-48		Challenged by IC inoculation of 1.0 <sup>cc</sup> of 20% <span style="background-color: black; color: black;">[redacted]</span> (Gm II) virus, using Rh 7930 as control. (z.v).
8-31-48		serum of 6-10-48 and 8-19-48 thawed and .4 <sup>cc</sup> removed of each for doubling neutralization test.
9-23-48		DEAD: Autopsy: no gross Tbc.
		Tissues: Thalamus; midbrain; medulla; spinal cord levels.
		<u>11-23-48</u> Tissues discarded.

MAY 19 1948

## HOMOLOGOUS NEUTRALIZATION TEST

Rh 464.

Saline control  $10^{-3}$ 

DATE	DAY	REMARKS
5-19-48	0	✓
<del>5-20-48</del>	1	✓
<del>5-21-48</del>	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
5-30-48	11	Weakness, both lowers.
5-31-48	12	Par. par. left lower; weakness of other 3 extremities.
6-1-48	13	Comp. par. left lower; par. par. rt. lower. Weakness both uppers.
6-2-48	14	No change.
6-3-48	15	" "
	16	" "
	17	" "
	18	Both lowers completely paralyzed; weakness both uppers.
	19	no change
	20	Par. of left lower; Part par. of right lower
	21	Par. of left lower; Part par. of right lower
	22	No change <u>6-10-48. Bled for serum.</u>
	23	" "
	24	" "
	25	" "
6-14-48	26	Comp. par. left lower; part. par. rt. lower.
	27	No change
	28	" "
	29	" "
7-6-48		" "
7-13-48		<u>6-19-48 - Bled for serum.</u>

FOUND DEAD

AUTOPSY: No gross the  
TISSUE FOR SECTION single segments of lumbar and cervical cord (2 A.)  
11-19-48 Tissues Discarded

MAY 19 1948

## HOMOLOGOUS NEUTRALIZATION TEST

Ph 465.

Saline control 10-4

DATE DAY REMARKS

5-19-48

0

✓

1

✓

2

✓

3

✓ Thin.

4

✓

5

✓

6

✓

7

✓

8.

✓

5-25-48

9

Thin; passive; generally weak.

5-29-48

10.

DEAD. - Autopsy: No gross t/c.TISSUE FOR SECTION - Thalamus, midbrain medulla,  
single sections of lumbar, thoracic, cervical  
cord (Z-A)

HISTOLOGY: Cerebral cord show mod. extensive acute  
neuronophagia (early) with mild PV cuffing; Thoracic  
shows a few chromatolytic neurones. Lumbar seems to  
be OK. - Medulla has considerable PV cuffing and  
mod. acute neuronophagia. - Midbrain show mild PV  
cuffing ventral to aqueduct.

DIAGNOSIS: POLIO (acute)

MAY 19 1948

HOMOLOGOUS NEUTRALIZATION TEST

Rh 466.

Saline control 10<sup>-4</sup>

DATE DAY REMARKS

5-19-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
6-16-48	28	✓

SACRIFICED: (chloroform-exsanguination)

AUTOPSY: No gross etc

TISSUE FOR SECTION: ~~Spinal~~ segments of lumbar, thoracic and cervical cord; midulla, midbrain & thalamus (ZA)

HISTOLOGY. Above segments reveal no pathology.

DIAGNOSIS: NO POLIO

MAY 19 1948

## HOMOLOGOUS NEUTRALIZATION TEST

Rh 467.

Saline control  $10^{-4}$ 

DATE DAY REMARKS

5-19-48

0

✓

1

✓

2

✓

3

✓

4

✓

5

✓

6

✓

7

✓

8

✓

9

✓

10

✓

11

✓

12

✓

13

✓

14

✓

15

✓

16

✓

17

✓

18

✓

19

✓

20

✓

21

✓

22

✓

23

✓

24

✓

25

✓

26

✓

27

✓

6-16-48

28

✓

SACRIFICED: (chloroform-exsanguination)AUTOPSY: No gross abnTISSUE FOR SECTION: ~~2~~ 3 segments of lumbar, 1 thoracic and 2 cervical cord; medulla, midbrain & thalamus (2A)HISTOLOGY: Midbrain section shows 3 small foci of PV infiltration but no intrastrial infiltration; all other sections negative.DIAGNOSIS: NO POLIO

MAY 19 1948

## HOMOLOGOUS NEUTRALIZATION TEST

Rh 468.

Acute serum  $10^{-1}$ 

DATE DAY REMARKS

5-19-48

0

✓

1

✓

2

✓

3

✓

4

✓

5

✓

6

✓

7

✓

8

✓

9

✓

10

✓

11

✓

12

✓

13

✓

6-2-48

14

? excited.

15

✓

16

✓

17

✓

18

✓

19

✓

20

✓

21

✓

22

✓

23

✓

24

✓

25

✓

26

✓

27

✓

6-16-48

28

✓

SACRIFICED (chloroform-*exsanguination*)AUTOPSY: No gross *Abc.*TISSUE FOR SECTION: Single segments of lumbar, thoracic, and cervical cord; medulla, midbrain & and thalamus (2A)HISTOLOGY:

Examination shows no histopathological changes.

DIAGNOSIS: NO POLIO.

MAY 19 1948

## HOMOLOGOUS NEUTRALIZATION TEST

Rh 469.

Acute serum

10<sup>-1</sup>

DATE	DAY	REMARKS
5-19-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	? Excited; pilo motor +.
	19	" "
	20	✓
	21	✓
	22	✓ T = 102.3
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
6-16-48	28	✓ SACRIFICED (chloroform-exsanguination)

AUTOPSY No gross the <sup>two</sup> segments of lumbar, thoracic and cervical cord; medulla, midbrain & thalamus (Z A)

HISTOLOGY: Lumbar cord (both levels) show root degeneration with neuronal outfall, glial collection of ant. horns, and PV infiltration of commissure of one level; Thoracic cord - shows neuronal loss with very lightly scattered "peppering" of glial cells; Cervical cord - ? root changes, but distinct (though less than lumbar cord) neuronal loss with glial infiltration. Medulla - shows no pathology. Midbrain - a single cuffed vessel, and a solitary focus of interstitial glial infiltration. Hal - no change.

DIAGNOSIS: PSL 10 (non-paralytic "old")

MAY 19 1948

## HOMOLOGOUS NEUTRALIZATION TEST

Rh 470.

Acute serum  $10^{-1}$ 

DATE DAY REMARKS

5-19-48

0

✓

1

✓

2

✓

3

✓

4

✓

5

✓

6

✓

7

✓

8

✓

9

✓

10

✓

11

✓

12

✓

13

✓

14

✓

15

✓

16

✓

17

✓

18

✓

19

✓

20

✓

21

✓

22

✓

23

✓

24

✓

25

✓

26

✓

27

✓

6-16-48

28

✓

SACRIFICED (chloroform-exsanguination)

Autopsy: No gross the

TISSUE FOR SECTION: ~~Single~~ <sup>Two</sup> segments of lumbar thoracic and cervical cord; medulla, midbrain and thalamus, in (ZA)HISTOLOGY: Exam. of above segments shows no pathology.DIAGNOSIS: NO POLIO

MAY 19 1948

HOMOLOGOUS NEUTRALIZATION TEST

Rh 471.

Acute serum  $10^{-2}$

DATE DAY REMARKS

5-19-48

0

✓

1

✓

2

✓

3

✓ Thin; diarrhea.

4

✓ " "

5

Thin, mod. diarrhea

6

" passive, generally weak.

7

No change; emaciated

8

5-27-48. DEAD - Autopsy: no gross TBc.

TISSUE FOR PATHOLOGY: Single levels of thalamus; midbrain; medulla; cervical; Thoracic + Lumbar cord. (Z.A.)

HISTOLOGY: NO evidences of polio in these segments.

DIAGNOSIS: NO EVIDENCE OF POLIO

MAY 19 1948

HOMOLOGOUS

NEUTRALIZATION TEST

Rh 472.

Acute serum  $10^{-2}$ 

DATE	DAY	REMARKS
5-19-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
5-31-48	12	Chums; disincl. to climb.
6-1-48	13	Par. par. both lowers; weakness both uppers. Voice weak.
6-2-48	14	Comp. par. both lowers; par. par. both uppers. " "
6-3-48	15	no change
	16	" "
	17	" "
	18	No change.
	19	" "
	20	" "
	21	Comp. par. of both lowers, part par. of both uppers. (can move head & neck.
	22	No change <u>6-10-48. Bled for serum.</u>
	23	" "
	24	" "
	25	No change
6-14-48	26	Compl. par. both lowers; part-par. both uppers.
	27	No change
	28	" "
	29	" "
7-6-48	48	" "
7-12-48	54	" "

6-19-48 - Bled for serum.FOUND DEADAUTOPSY: No gross theTISSUE FOR SECTION: single segments of lumbar and cervical cord (2.A.)11-19-48 Tissues Discarded

MAY 19 1948

Rh 473.

Acute serum  $10^{-2}$ 

DATE DAY REMARKS

5-19-48

0

✓

1

✓

2

✓

3

✓

4

✓

5

✓

6

✓

7

✓

8

✓

9

✓

10

✓

11

✓

12

✓

13

✓

14

✓

15

✓

16

✓

17

✓

18

✓

19

✓

20

✓

21

✓

22

✓

23

✓

24

✓

25

✓

26

✓

27

✓

6-16-48

28

✓

SACRIFICED: (chloroform-exasanguination)

AUTOPSY: No gross the

TISSUE FOR SECTION Single segments of lumbar thoracic and cervical cord; medulla, midbrain and thalamus (ZA)

HISTOLOGY: Examination of segments shows no pathological change.

DIAGNOSIS: NO POLIO.

MAY 19 1948

Rh 474.

Convalescent serum  $10^{-1}$ 

DATE	DAY	REMARKS
5-19-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
5-28-48	9	Weakness of all 4 extrem.; clumsy. Pilomotor response.
5-29-48	10	Par. par. of all 4 extremities. Ptosis - mod., bilateral. Alert expression.
5-30-48	11.	Partial par. all 4 exts.; voice weak.
5-31-48	12	No change. Lower left facial weakness.
6-1-48	13	Quadriplegia. Comp. left facial <sup>weakness</sup> paralysis. Voice weak.
6-2-48	14	" (Cannot close left eye tentatively)
6-3-48	15	AM. " " " " " " " " " " " "
		P.M. Found Dead.

AUTOPSY Negross the  
TISSUE FOR SECTION. Single sections of lumbar & cervical <sup>spinal cord</sup> (ZA)  
 11-19-48 Tissues Discarded

## HOMOLOGOUS NEUTRALIZATION TEST

MAY 19 1948

Rh 475.

Convalescent serum  $10^{-1}$ 

DATE DAY REMARKS

5-19-48

0

✓

1

✓

2

✓

3

✓

4

✓

5

✓

6

✓

7

✓

8

✓

9

✓

10

✓

11

✓

12

✓

13

✓

14

✓

15

✓

16

✓

17

✓

18

✓

19

✓

20

✓

21

✓

22

✓

23

✓

24

✓

25

✓

26

✓

27

✓

6-16-48

28

✓

SACRIFICED: (Chloroform-exsanguination)

Autopsy: No gross ~~the~~TISSUE FOR SECTION: ~~Spinal~~ segments of lumbar, thoracic and cervical cord; medulla, midbrain & thalamus (ZA)HISTOLOGY: Above segments reveal no pathology.DIAGNOSIS: NO POLIO

MAY 19 1948

Rh 476.

Convalescent serum  $10^{-1}$ 

DATE DAY REMARKS

5-19-48

0

✓

1

✓

2

✓

3

✓

4

✓

5

✓

6

✓

7

✓

8

✓

9

✓

10

✓

11

✓

12

✓

13

✓

14

✓

15

✓

16

✓

17

✓

18

✓

19

✓

20

✓

21

✓

22

✓

23

✓

24

✓

25

✓

26

✓

27

✓

6-16-48

28

✓

SACRIFICED: (chloroform-exsanguination)

Autopsy: No gross Abc

TISSUE FOR SECTION: <sup>single</sup> segments of lumbar thoracic and cervical cord; <sup>8, 9, 10</sup> medulla, midbrain and thalamus (2A)HISTOLOGY: Above levels reveal no pathology.DIAGNOSIS: NO POLIO

MAY 19 1948

Rh 477.

Convalescent serum  $10^{-2}$ 

DATE	DAY	REMARKS
5-19-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
6-16-48	28	✓ SACRIFICED: (chloroform-exsanguination)

AUTOPSY: No gross the

TISSUE FOR SECTION: ~~Spinal~~ segments of lumbar thoracic and cervical cord; medulla, midbrain & thalamus (Z A)

HISTOLOGY: Exam. of three segments shows no pathological change.

DIAGNOSIS: NO POLIO

MAY 19 1948

Rh 478.

Convalescent serum  $10^{-2}$ 

DATE DAY REMARKS

5-19-48

0

✓

1

✓

2

✓

3

✓

4

✓

5

✓

6

✓

7

✓

8

✓

9

✓

10

✓

11

✓

12

✓

13

✓

14

✓

15

✓

16

✓

17

✓

18

✓

19

✓

20

✓

21

✓

22

✓

23

✓

24

✓

25

Found Dead: No external or postmortem evidence of asphyxia from hanging on chain. animal rather thin but had not been having diarrhea; outstanding cough; apathy or general weakness. — Autopsy: Only positive findings grossly distended were bladder quite distended; severe esophogastromum infestation; and very little peri-renal or subcutaneous fat.

6-13-48-

TISSUE FOR SECTION: numerous cord levels; thalamus; midbrain; medulla sections (Z-A)

HISTOLOGY: CNS reveals no pathological findings.

DIAGNOSIS: NO POLIO.

MAY 19 1948

Rh 479

Convalescent serum  $10^{-2}$ 

DATE	DAY	REMARKS
5-19-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
6-16-48	28	✓ SACRIFICED (chloroform-lysanguination)

AUTOPSY: No gross the  
TISSUE FOR SECTION: ~~Two~~ segments of lumbar, thoracic<sup>(1)</sup>  
 and cervical cord; medulla, midbrain & thalamus (2A)

HISTOLOGY: Substantia nigra shows some scattered perivascular round  
 cell infiltration - as does thalamus. - There is no interstitial  
 infiltration and the other sections are entirely normal.

DIAGNOSIS: NO POLIO

HOMOLOGOUS NEUTRALIZATION TEST SERUM-DILUTION METHOD.

10-14-48. VIRUS USED: Gen II of Berlin strain polio virus - same as used for initial saline titration on (4-14-48); and for neutralization test of 5-18-48. - The previous cumulative titer =  $10^{3.4}$  so that the fixed dose of virus aimed for this test is  $50 PD_{50}$  should be achieved by  $0.5 \mu$  inocula of final virus conc. of 1:50

SERA USED: Three serums from Ned Berlin: -  
 ACUTE: 8-28-47 1 Day after onset  
 TWO-WEEK: 9-10-47 14 Days " "  
 CONVALESCENT: 11-24-47 94 Days " "

3.5

INCUBATION: - Equal portions of the indicated serum dilutions ( $1.2 \mu$  amounts) and of above virus (1:25) to make final virus conc. of 1:50, mixed, and simultaneously with control mixtures held at room temp. ( $72^{\circ}F$ ) for one hour; refrigerator overnight for  $\pm 15$  hrs; then into ice bath during inoculations on 10-15-48. - INOCULUM:  $0.5 \mu$  / monkey.

MONKEYS USED: Rhesus monkeys, not used previously for experiments in this laboratory; - a) 11 were splenectomized, rec'd from Dr. Schmidt (Rh.# 1965; 1997; 2100; 2106; 2025; 2101; 2098; 2096; 2017; 2014; 2010.)  
 b) 9 were normal rhesus rec'd from Dr. Schmidt - in turn from (Rh.# 975; 990; 991; 1007; 1005; 1006; 1008; Griffich Co. 1009; 1010)

FINAL VIRUS 1:50:

c) Remaining 41 monkeys rec'd from Okatie Farms on 10-14-48.

SERA	UNDILUTED	1:4	1:16	1:64
ACUTE (1 day)	961 P <sub>10</sub>	965 O; K <sub>31</sub>	969 P <sub>10</sub>	973 P <sub>10</sub>
	962 O; K <sub>33</sub>	966 P <sub>8</sub>	970 P <sub>10</sub>	974 P <sub>10</sub>
	963 P <sub>7</sub>	967 P <sub>8</sub>	971 P <sub>8</sub>	975 P <sub>8</sub>
	964 P <sub>9</sub>	968 P <sub>8</sub>	972 P <sub>14</sub>	976 P <sub>8</sub>
TWO-WEEK (14 days)	976 O; X <sub>32</sub>	980 O; K <sub>33</sub>	984 P <sub>16</sub>	988 P <sub>7</sub>
	977 O; X <sub>32</sub>	2100 O; K <sub>33</sub>	985 P <sub>8</sub>	989 P <sub>10</sub>
	978 O; X <sub>32</sub>	982 P <sub>7</sub>	986 P <sub>10</sub>	990 P <sub>10</sub>
	979 O; X <sub>32</sub>	983 O; K <sub>33</sub>	987 P <sub>7</sub>	991 P <sub>7</sub>
CONVALESCENT (94 days)	992 O; X <sub>32</sub>	996 D <sub>27</sub>	1000 O; K <sub>33</sub>	1004 P <sub>12</sub>
	993 O; X <sub>32</sub>	997 O; K <sub>33</sub>	1001 O; K <sub>33</sub>	1005 P <sub>9</sub>
	994 D <sub>24</sub>	1007 O; K <sub>33</sub>	1002 K <sub>27</sub>	1006 O; K <sub>33</sub>
	995 O; K <sub>32</sub>	999 O; K <sub>33</sub>	1003 P <sub>11</sub>	2014 P <sub>8</sub>

VIRUS:	1:50	1:100	10 <sup>-3</sup>	10 <sup>-4</sup>
SALINE	998 D <sub>7</sub>	981 P <sub>10</sub>	2101 P <sub>7</sub>	2096 O; K <sub>31</sub>
	1008 P <sub>6</sub>	1997 O; K <sub>31</sub>	2098 P <sub>8</sub>	2010 P <sub>11</sub>
CONTROL	1009 P <sub>8</sub>	2108 P <sub>13</sub>	2017 P <sub>6</sub>	2025 P <sub>18</sub>
	1010 P <sub>10</sub>			

Homologous Neutralization Test

Saline Control

Ph. 998

Serum Dilution Method

1:50

Date	Day	Remarks
Oct. 15, 1948	0.	Thin: mild diarrhea.
	1	" " "
	2	" " "
	3	" " "
	4	" " "
	5	Thin - mild diarrhea
	6	very thin, apathetic, passive; general weakness
	7.	<u>FOUND DEAD</u>
		<u>AUTOPSY:</u> No gross the
		<u>TISSUE FOR SECTION</u> - 4 segments of lumbar, 2 thoracic, and 4 cervical cord. 2 sections of medulla, 1 thalamus and midbrain (Z.A.) (midbrain - poor).
		<u>HISTOLOGY:</u> Fixation only fair. Above segments do <u>not</u> show any acute neuronal lesions.
		<u>DIAGNOSIS:</u> <u>NO EVIDENCE FOR POLIO</u>

Homologous Neutralization Test

Rh. 1008 -

Serum Dilution Method

Saline Control

1:50

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
10-21-48	6	<p>Partial Paralysis of both lower and rt. upper, Partial left facial paralysis</p> <p><u>SACRIFICED</u> (chloroform - exsanguination)</p> <p><u>AUTOPSY:</u> No gross lcs</p> <p><u>TISSUE FOR VIRUS</u> Cord and medulla frozen in a lusteroid (d. 9)</p> <p>Culture: ✓✓✓</p> <p><u>10-26-48</u> The pooled cords and medullas of Rh. 1008 and Rh. 2017 thawed and made up as a 20% susp in (52) sterile saline; Pooled wt. = 13 gms. ± 32% of susp frozen in 4-20° unsp. Vials #1, 2, 3, 4 stored (B-7-4)</p> <p>Culture: ✓✓</p>

Homologous Neutralization Test

Serum Dilution Method

Saline Control

1:50

Ph. 1009-

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	Both lozenges are clumpy
10-23-48	8	Partial Analysis of both lozenges.
	9	Same.
10-25-48	10	Partial Analysis of both lozenges.
		<u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Saline Control

1:50

Rh. 1010

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
10-21-48	6	Pilomotor response; excited
	7	"
	8	Both lowers are easily exhausted
	9	Weakness both lowers.
10-25-48	10	Compl. Par. right lower; Part. Par. left lower, Weakness of both upper. <u>SACRIFICED</u> Discarded

Ph. 981-

Date	Day	Remarks
Oct. 15, 1948	0	Thin. No diarrhea.
	1	" "
	2	" "
	3	" "
	4	" edema of both eyes.
	5	" "
	6	Same but edema is better today
	7	Thin no diarrhea
	8	" "
	9.	Thin. - No weakness.
	10	Partial Paralysis of left upper and both lowers; Weakness of right upper. <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Ph. 1997 - Splenectomized.

Serum Dilution Method

Saline Control

1:100

Date Day Remarks

Oct. 15, 1948

- 0 ✓
- 1 ✓
- 2 ✓
- 3 ✓
- 4 ✓
- 5 ✓
- 6 ✓
- 7 ✓
- 8 ✓
- 9 ✓

10-25-48

- 10 ~~Partial Paralysis~~ <sup>clumping</sup> of both lower-
- 11 Both lower extremities are clumped and awkward
- 12 No change
- 13 No awkwardness noted today
- 14 ✓
- 15 ✓
- 16 ✓
- 17 ✓
- 18 ✓
- 19 ✓
- 20 ✓
- 21 ✓
- 22 ✓
- 23 ✓
- 24 ✓
- 25 ✓
- 26 ✓
- 27 ✓
- 28 ✓
- 29 ✓
- 30 ✓

11-15-48.

31 ✓ Sacrificed (chloroform-exsanguination) -  
Autopsy: Tuberculelosis with caseation of a large matted mass of hilar nodes, and with epicardial tubercles and clear straw colored pericardial fluid ( $\pm 5^{\circ}\text{C}$ ), but no gross pulmonary or hepatic TB. (No accessory spleens).

TISSUES FOR HISTOLOGY: 2 Medulla; 7 cervical; 2 Thoracic; 6 lumbar cord (2A)

HISTOLOGY: Above levels reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Ph. 2168 - splenectomized.

Serum Dilution Method

Saline Control

1:100

Date Day Remarks

Oct. 15, 1948

- 0 ✓
- 1 ✓
- 2 ✓
- 3 ✓
- 4 ✓
- 5 ✓
- 6 ✓
- 7 ✓
- 8 ✓
- 9 ✓
- 10 ✓

11 Both lowers are awkward

10-28-48

12  
13 Partial Paralysis of both lowers.  
SACRIFICED Discarded

Homologous Neutralisation Test

Rh. 2101 - splenectomized.

Serum Dilution Method

Selins Control  
10<sup>-3</sup>

Date Day Remarks

Oct. 15, 1948

0 ✓  
1 ✓  
2 ✓  
3 ✓  
4 ✓  
5 ✓  
6 ✓  
7 ✓  
8 ✓  
9 ✓  
10 ✓  
11 ✓  
12 ✓  
13 ✓  
14 ✓  
15 ✓  
16 ✓

17 Comp. rt. facial paralysis; weakness of lower.  
18 Comp. rt. facial paralysis; Partial Paralysis of both lower  
Weakness of both uppers.  
SACRIFICED Discarded

Homologous Neutralization Test

Serum Dilution Method

Saline Control

Ph. 2098 - ~~plene~~ homized.

10-3

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	Weakness of all extremities. Weak back & voice
10-23-48	8	Complete Paralysis of both lowers. Partial Paralysis of both uppers. Partial left facial paralysis
	9	Prostrate; partial left facial paralysis.
	10	<u>Moribund</u> <u>SACRIFICED</u> <u>Discarded</u>

Homologous Neutralization Test

Serum Dilution Method

Saline Control  
10<sup>-3</sup>

Rh. 2017 - splenectomized.

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
10-21-48	6	<p>Partial Paralysis of all 4 extremities</p> <p>SACRIFICED (chloroform-exsanguination)</p> <p>Autopsy: no gross lcs</p> <p><u>TISSUE FOR VIRUS</u> Cord and medulla pooled with that of Rh 1008 (see latter).</p>

Homologous Neutralization Test

Ph. 2096 - splenectomized

Serum Dilution Method

Saline Control

10-4

Date Day Remarks

Oct. 15, 1948

0 ✓  
 1 ✓  
 2 ✓  
 3 ✓  
 4 ✓  
 5 ✓  
 6 ✓  
 7 ✓  
 8 ✓  
 9 ✓  
 10 ✓  
 11 ✓  
 12 ✓  
 13 ✓  
 14 ✓  
 15 ✓  
 16 ✓  
 17 ✓  
 18 ✓  
 19 ✓  
 20 ✓  
 21 ✓  
 22 ✓  
 23 ✓  
 24 ✓  
 25 ✓  
 26 ✓  
 27 ✓  
 28 ✓  
 29 ✓  
 30 ✓

11-15-48.

31

Sacrificed (chloroform. exsanguination) - Autopsy: no gross TB.

TISSUES FOR SECTION: 2 Medulla; 6 Cervical; 2 Thoracic; 6 Lumbar. (Z-A).

HISTOLOGY: Above levels reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Rh. 2010 - *Glennomig's*

Serum Dilution Method

Schick Control

10-4

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
10-26-48	11	Compl. Par. of left upper. Partial Paralysis of right upper Weakness of both lower and neck. <u>SACRIFICED</u> Discarded

[REDACTED] - HOMOLOGOUS NEUTRALIZATION TEST.  
SERUM DILUTION METHOD.

Ph. 2025 ~~splenectomized~~

Sabin Control

10-4

DATE	DAY	REMARKS.
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	climory - Lowers are awkward
11-2-48	18	Partial Panalysis of both lowers and it. upper. <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Acute Serum  
undiluted.

Rh. 961-

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
10-25-48	10	Partial Paralysis of both lowers; Weakness both uppers. <u>SACRIFICED</u> Discarded

10-25-48

10

Partial Paralysis of both lowers; Weakness both uppers.  
SACRIFICED Discarded

Homologous Neutralization Test

Ph. 962-

Serum Dilution Method

Acute Serum

undiluted

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓
	31	✓
32	✓	
11-17-48	33	<u>SACRIFICED</u> (chloroform - exsanguination) <u>AUTOPSY:</u> No gross lbc <u>TISSUE FOR SECTION</u> 2 medulla, 5 cervical & thoracic and 5 lumbar cord; (Z.A.)  <u>HISTOLOGY:</u> Above levels reveal no pathology.  <u>DIAGNOSIS:</u> <u>NO POLIO</u>

11-17-48

33

SACRIFICED (chloroform - exsanguination)  
AUTOPSY: No gross lbc  
TISSUE FOR SECTION 2 medulla, 5 cervical & thoracic  
and 5 lumbar cord; (Z.A.)

HISTOLOGY: Above levels reveal no pathology.

DIAGNOSIS: NO POLIO

[REDACTED]

Homologous Neutralization Test

Ph. 963.

Serum Dilution Method

Acute Serum  
undiluted.

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
17	Comp. par. both lowers + left upper; part. par. rt. upper; complete aphasia; - weak neck + back. <u>SACRIFICED</u> Discarded	

0 ✓  
1 ✓  
2 ✓  
3 ✓  
4 ✓  
5 ✓  
6 ✓  
7 ✓  
8 ✓  
9 ✓  
10 ✓  
11 ✓  
12 ✓  
13 ✓  
14 ✓  
15 ✓  
16 ✓

17 Comp. par. both lowers + left upper; part. par. rt. upper; complete  
aphasia; - weak neck + back.  
SACRIFICED Discarded

[REDACTED]

Hemologous Neutralization Test

Ph. 964-

Serum Dilution Method

Acute Serum  
undiluted.

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
10-24-48	8	✓
	9	Tremors; excited; part. par. rt. upper.
	10	Partial Paralysis of all extremities <u>SACRIFICED</u> Discarded

Ph. 965

Serum Dilution Method

Acute Serum

1:4

Date	Day	Remarks
Oct. 15, 1948	0	Thin; no diarrhea
	1	" "
	2	" "
	3	" "
	4	" "
	5	" "
	6	" "
	7	" "
	8	Thin - scawy - mild diarrhea
	9	" "
	10	" "
	11	" "
	12	" "
	13	" "
	14	" "
	15	" "
	16	" "
	17	Same condition
	18	" "
	19	" "
	20	" "
	21	" "
	22	" "
	23	" "
	24	" "
	25	" "
	26	thin - scawy - mild diarrhea and general weakness
	27	" "
	28	Same condition
	29	" "
	30	" "
11-15-48.	31.	Same. Sacrificed (chloroform-exsanguination) - Autopsy: no gross tuberculosis; very emaciated.

TISSUES: 2 Medulla; 7 cervical; 2 Thoracic; 6 lumbar. (ZA)

HISTOLOGY: Above levels reveal no pathology.

DIAGNOSIS: NO PTHD

Homologous Neutralization Test

Rh. 966-

Serum Dilution Method

Acute Serum

1:4

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
10-23-48	8	Complete Paralysis of right lower, Partial Paralysis of left lower
	9	No change.
	10	Compl. Paralysis of right lower, Part. Par. left lower and both upper. <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Acute Serum

1:4

Rh. 967.

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
10-23-48	7	✓
	8	Partial Paralysis of both lowers.
	9.	Prostrate.
	10	Complet Par. both lowers. Part. Par. both uppers, Weak back. <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Ph. 968-

Serum Dilution Method

Acute Serum  
1:4

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
10-23-48	8	Partial Paralysis of both lowers. Weakness of both uppers.
	9.	Almost compl. par. both lowers. " " " " " "
	10	Compl. Par. both lowers. Part. Par. both uppers. <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Acute Serum

1:16

Rh. 969.

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	Pilomotor response - excited
	9	Excited.
10-25-48	10	Complete Paralysis of left upper. Weakness of other extremities <u>SACRIFICED</u> Discarded

Rh. 970-

Serum Dilution Method

Acute Serum  
1:16

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
10-25-48	8	early exhausted
	9	Excited; pilomotor +.
	10	Partial Par. both lowers, weakness both uppers. <u>SACRIFICED</u> Discarded

Day

Remarks

Oct. 15, 1948

0  
1  
2  
3  
4  
5  
6  
7

✓  
✓  
✓  
✓  
✓  
✓  
✓

10-25-48

8  
9  
10

early exhausted  
Excited; pilomotor +.  
Partial Par. both lowers, weakness both uppers.  
SACRIFICED Discarded

Homologous Neutralization Test

Ph. 971

Serum Dilution Method

Acute Serum

1:16

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
10-23-48	7	✓
	8	Complete Paralysis of right lower; Partial Paralysis of left lower.
	9	Compl. par. both lowers.
	10	No Change <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Ph. 972-

Serum Dilution Method

Acute Serum  
1:16

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓ thin mild diarrhea
	11	✓ " " "
	12	✓
	13	✓
10-29-48	14	Partial Paralysis of both lowers <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Rh. 973-

Serum Dilution Method

Acute Serum

1:64

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	Pilomotor response - excited; Weakness of both lowers.
	9.	" " Excited. -
10-25-48	10	Partial Paralysis of both lowers <u>SACRIFICED</u> Discarded

## Homologous Neutralization Test

Ph. 974-

Serum Dilution Method

Acute Serum

1:64

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	Thin - mild diarrhea - disinclined to climb
	9	Thin; has mild diarrhea.
10-25-48	10	Partial Paralysis of all extremities - <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Acute Serum

1:64

Ph. 975

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
10-23-48	7	✓
	8	Complete Paralysis of right upper; Partial Paralysis of left upper.
	9	Almost compl. par. of left upper; compl. par. right upper; weakness both lowers.
	10	Compl. Par. left lower and both uppers. Part P. right lowers <u>SACRIFICED</u> Discarded

Homologous Neutralisation Test

Serum Dilution Method

Acute Serum  
1:64

Rh. 1963- (Spine removed)

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
10-23-48	7	✓
	8	Complete Paralysis of right lower, Partial Paralysis of left lower.
	9	NO Change.
	10	Quadriplegia - Weak voice <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Rh. 976

Serum Dilution Method

Two Week Serum  
undiluted.

Date Day Remarks

Oct. 15, 1948

0 ✓  
1 ✓  
2 ✓  
3 ✓  
4 ✓  
5 ✓  
6 ✓  
7 ✓  
8 ✓  
9 ✓  
10 ✓  
11 ✓  
12 ✓  
13 ✓  
14 ✓  
15 ✓  
16 ✓  
17 ✓  
18 ✓  
19 ✓  
20 ✓  
21 ✓  
22 ✓  
23 ✓  
24 ✓  
25 ✓  
26 ✓  
27 ✓  
28 ✓  
29 ✓  
30 ✓  
31 ✓

11-16-48

32 Observation terminated. - Tag # changed to Rh. 976 X; to be used for other experiments.

11-20-48

used as a control (given 100 PD<sub>50</sub> of Teurnment virus) in the challenge re-inoculation of Rh. 572, 573, 577, 578, 583, 600 (g.v.).

Rh. 977

Homologous Neutralization Test

Serum Dilution Method Two Week Serum  
inactivated.

Date Day Remarks

Oct. 15, 1948

0 ✓  
1 ✓  
2 ✓  
3 ✓  
4 ✓  
5 ✓  
6 ✓  
7 ✓  
8 ✓  
9 ✓  
10 ✓  
11 ✓  
12 ✓  
13 ✓  
14 ✓  
15 ✓  
16 ✓  
17 ✓  
18 ✓  
19 ✓  
20 ✓  
21 ✓  
22 ✓  
23 ✓  
24 ✓  
25 ✓  
26 ✓  
27 ✓  
28 ✓  
29 ✓  
30 ✓  
31 ✓

11-16-48

32 Observation terminated. - tag # changed to Rh. 977 X; to be used for other experiments.

11-28-48

- used as a control (given 100 PD<sub>50</sub> of Tennant virus) for the challenge re-inoculation of Rh. 572, 573, 577, 578, 583, 600 (g.v.)

Homologous Neutralization Test

Rh. 978

Serum Dilution Method

Two Week Serum  
undiluted.

Date Day Remarks

Oct. 15, 1948

0 ✓  
1 ✓  
2 ✓  
3 ✓  
4 ✓  
5 ✓  
6 ✓  
7 ✓  
8 ✓  
9 ✓  
10 ✓  
11 ✓  
12 ✓  
13 ✓  
14 ✓  
15 ✓  
16 ✓  
17 ✓  
18 ✓  
19 ✓  
20 ✓  
21 ✓  
22 ✓  
23 ✓  
24 ✓  
25 ✓  
26 ✓  
27 ✓  
28 ✓  
29 ✓  
30 ✓  
31 ✓

11-16-48.

32 Observation terminated. Tag # changed to Rh. 978X; to be used for other experiments.

11-20-48

Used as a control (given 100 PD<sub>50</sub> of Hoferkamp virus) for the challenge re-inoculation of Rh. 521, 536, 537, and 545. (S.V.).

Rh. 979-

Homologous Neutralisation Test

Serum Dilution Method

Two Weeks Serum  
undiluted.

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓
31	✓	
11-16-48	32	Observation terminated. Tag# changed to Rh. 979X; to be used for other experiments.
11-20-48		Used as control (given 100 PD <sub>50</sub> of Heferkamp virus) for the challenge re-inoculation of Rh. 521, 536, 537, 545. (g.v.)

Homologous Neutralization Test

Ph. 980-

Serum Dilution Method

Two-Week Serum

1:4

Date Day Remarks

Oct. 15, 1948

0 ✓  
 1 ✓  
 2 ✓  
 3 ✓  
 4 ✓  
 5 ✓  
 6 ✓  
 7 ✓  
 8 ✓  
 9 ✓  
 10 ✓  
 11 ✓  
 12 ✓  
 13 ✓  
 14 ✓  
 15 ✓  
 16 ✓  
 17 ✓  
 18 ✓  
 19 ✓  
 20 ✓  
 21 ✓  
 22 ✓  
 23 ✓  
 24 ✓  
 25 ✓

26 ✓ thin - mild diarrhea

27 .. ..  
 28 .. ..  
 29 .. ..  
 30 .. ..  
 31 .. ..

11-16-48

32

Same condition

SACRIFICED (chloroform-exsanguination)

AUTOPSY: No gross lbc

TISSUE FOR SECTION 2 medulla 5 cervical 2 thoracic  
 and 4 lumbar cord (Z.A.)

HISTOLOGY: Above levels reveal no pathology.

DIAGNOSIS: NO PBLD

Homologous Neutralization Test

Rh. 2100 - splenectomized.

Serum Dilution Method Two-Week Serum  
1:4

Date Day Remarks

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓
	31	✓
	32	✓

11-17-48

33 SACRIFICED (chloroform - exsanguination)  
AUTOPSY: No gross the  
TISSUE FOR SECTION 2 medulla 4 cervical 2 thoracic  
 and 6 lumbar cord (Z.A.)

HISTOLOGY: Above levels reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Rh. 982-

Serum Dilution Method

Two Week Serum

1:4

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	Partial pos. both rows.

SACRIFICED Discarded

Ph. 983-

Homologous Neutralization Test

Serum Dilution Method

Two Week Serum

1:4

Date Day Remarks

Oct, 15, 1948

0 ✓  
1 ✓  
2 ✓  
3 ✓  
4 ✓  
5 ✓  
6 ✓  
7 ✓  
8 ✓  
9 ✓  
10 ✓  
11 ✓  
12 ✓  
13 ✓  
14 ✓  
15 ✓  
16 ✓  
17 ✓  
18 ✓  
19 ✓  
20 ✓  
21 ✓  
22 ✓  
23 ✓  
24 ✓  
25 ✓  
26 ✓  
27 ✓  
28 ✓  
29 ✓  
30 ✓  
31 ✓  
32 ✓

11-17-48

33

SACRIFICED (chloroform-exsanguination)  
AUTOPSY: No gross the  
TISSUE FOR SECTION 2 medulla; cervical  
2 thoracic and 5 lumbar cord (Z.A.)

HISTOLOGY: Above levels show no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Ph. 984

Serum Dilution Method

Two-Week Serum

1:16

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	Paralysis left upper; weakness rt. upper.
	17	Paralysis all 4 extremities. <u>SACRIFICED Discarded</u>

Homologous Neutralization Test

Ph. 985-

Serum Dilution Method

Two Week Serum  
1:16

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
10-23-48	6	✓
	7	Pilomotor response; excited. Weakness of both lowers and left upper.
	8	Complete Paralysis of right lower. Partial Paralysis of left lower and both uppers. Weakness of voice and back.
	9.	NO change.
	10	Complete Par. both lowers; Part. Par. both uppers. Weak. voice and back. <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Two-Week Serum

1:16

Ph. 986

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
10-25-48	9.	✓
	10	Partial Paralysis of all extremities <u>SACRIFICED</u> Discarded

Hemologous Neutralization Test

Rh. 987-

Serum Dilution Method Two Week Serum  
1:16

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	excited
	8	"
	9	excited. -
	10	"
	11	"
	12	"
	13	"
	14	"
	15	✓
	16	✓
	17	Partial par. both uppers; weakness both lowers. <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Ph. 988

Serum Dilution Method

Two Week Serum

1:64

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
10-22-48	6	✓
	7	Partial Paralysis of both loews. Weak voice.
	8	Almost Complete Quadriplegia.
	9	Quadriplegia.
	10	" " ; aphonia <u>SACRIFICED</u> Discarded

[REDACTED]

Homologous Neutralization Test

Serum Dilution Method Two Week Serum

1:64

Ph. 989-

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓

10-25-48	10	Part. Par. of right upper and right lower. Weakness of left upper and left lower. <u>SACRIFICED</u> Discarded
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Homologous Neutralization Test

Ph. 990 -

Serum Dilution Method

Two-Weeks Serum

1:64

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
10-25-48	10	Partial Paralysis of both upper and left lower; Weakness of right lower. <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Serum Dilution Method Two Week Serum  
1:64

Rh. 991-

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
10-22-48	7	Complete Paralysis of right upper. Part. Par. left lower, pleth. par. of
	8	Almost complete paralysis of both lowers and right upper; partial paralysis of left upper
	9	No change.
	10	No Change - <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Conv. Serum  
undiluted.

Rh. 992

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓
31	✓	
11-16-48	32	Observation terminated. - Tag # changed to Rh. 992 X; to be used for other experiments.
		12-2-48. Given to Dr. Sabin for an <u>Neoplasmaid</u> exp't.

11-16-48

32

Observation terminated. - Tag # changed to Rh. 992 X; to be used for other experiments.

12-2-48. Given to Dr. Sabin for an Neoplasmaid exp't.

Rh. 993-

Homologous Neutralization Test

Serum Dilution Method Conval. Serum  
undiluted.

Date      Day      Remarks  
Oct. 15, 1948

- 0 ✓
- 1 ✓
- 2 ✓
- 3 ✓
- 4 ✓
- 5 ✓
- 6 ✓
- 7 ✓
- 8 ✓
- 9 ✓
- 10 ✓
- 11 ✓
- 12 ✓
- 13 ✓
- 14 ✓
- 15 ✓
- 16 ✓
- 17 ✓
- 18 ✓
- 19 ✓
- 20 ✓
- 21 ✓
- 22 ✓
- 23 ✓
- 24 ✓
- 25 ✓
- 26 ✓
- 27 ✓
- 28 ✓
- 29 ✓
- 30 ✓
- 31 ✓

11-16-48

32

Observation terminated. Tag # changed to Rh. 993 X; to be used for other experiments.

12-2-48 - Given to Dr. Sabin for isoplasmacid exp't.

Homologous Neutralization Test

Ph. 994

Serum Dilution Method

Conv. Serum  
undiluted.

Date	Day	Remarks
Oct. 15, 1948	0	mild diarrhea.
	1	" "
	2	" "
	3	" "
	4	" "
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
11-8-48	24	FOUND DEAD

AUTOPSY: No gross the  
TISSUE FOR SECTION midbrain, thalamus and 2 medulla, also  
6 cervical 2 thoracic and 5 lumbar cord segments (Z.A.)

HISTOLOGY: no evidence of recent or old neuronal pathology.

DIAGNOSIS: NO POLIO

Rh. 995-

Homologous Neutralization Test

Serum Dilution Method Conval. Serum  
undiluted.

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓ then
	25	✓ "
	26	✓ "
	27	✓ "
	28	✓ " edema of face
	29	✓ " " "
30	✓ " " "	
<u>11-15-48.</u>	31	✓ No edema today. Very thin. - <u>Sacrificed</u> - chloroform exsanguination. - No gross TBc.

TISSUES: 2 Medulla; 4 cervical; 2 Thoracic; 4 lumbar segments. (Z.A.).

HISTOLOGY: No evidence of pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Rh. 996

Serum Dilution Method

Cowal. Serum  
1:4

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓ thin
	25	✓ "
26	✓ "	
11-11-48.	27	DEAD - (Body is warm to touch.) - Autopsy: No gross Tbc.

TISSUES FOR SECTION: ~~Midbrain~~, Nalamus, 2 medulla; 5 cervical; 2 thoracic; 4 lumbar cord. (Z.A.).

HISTOLOGY: All levels show no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Ch. 997-

Serum Dilution Method Conval. Serum.  
1:4

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓
	31	✓
32	✓	
11-17-48	33	SACRIFICED (chloroform-exasanguination)

AUTOPSY: To gross the  
TISSUE FOR SECTION 4 medulla 4 cervical 2 thoracic  
and 3 lumbar cord (2.A.)

HISTOLOGY: Above segments reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Serum Dilution Method

Cowal. Serum  
1:4

Rh. 1007-

Date      Day      Reactions

Oct. 15, 1948

0 ✓  
1 ✓  
2 ✓  
3 ✓  
4 ✓  
5 ✓  
6 ✓  
7 ✓  
8 ✓  
9 ✓  
10 ✓  
11 ✓  
12 ✓  
13 ✓  
14 ✓  
15 ✓  
16 ✓  
17 ✓  
18 ✓  
19 ✓  
20 ✓  
21 ✓  
22 ✓  
23 ✓  
24 ✓  
25 ✓  
26 ✓  
27 ✓  
28 ✓  
29 ✓  
30 ✓  
31 ✓  
32 ✓

11-17-48

33 SACRIFICED (chloroform-exsanguination)  
AUTOPSY: No gross the  
TISSUE FOR SECTION 2 medulla & cervical 2 thoracic  
and 4 lumbar cord (2.A.)  
HISTOLOGY: Above levels reveal no pathology.  
DIAGNOSIS: NO POLIO

Rh. 999-

Homologous Neutralization Test

Serum Dilution Method Convalescent Serum  
1:4

Date Day Remarks

Oct. 15, 1948

0 ✓  
1 ✓  
2 ✓  
3 ✓  
4 ✓  
5 ✓  
6 ✓  
7 ✓  
8 ✓  
9 ✓  
10 ✓  
11 ✓  
12 ✓  
13 ✓  
14 ✓  
15 ✓  
16 ✓  
17 ✓? excited  
18 ✓ OK.  
19 ✓  
20 ✓  
21 ✓  
22 ✓  
23 ✓  
24 ✓  
25 ✓  
26 ✓  
27 ✓  
28 ✓  
29 ✓  
30 ✓  
31 ✓  
32 ✓

11-17-48

33 SACRIFICED (chloroform - exsanguination)

AUTOPSY: No gross the  
TISSUE FOR SECTION 2 medulla 5 cervical  
1 thoracic and 4 lumbar cord.

HISTOLOGY: Above levels free of pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Rh. 1000

Serum Dilution Method

Conv. Serum  
1:16

Date Day Remarks

Oct. 15, 1948

- 0 ✓
- 1 ✓
- 2 ✓
- 3 ✓
- 4 ✓
- 5 ✓
- 6 ✓
- 7 ✓
- 8 ✓
- 9 ✓
- 10 ✓
- 11 ✓
- 12 ✓
- 13 ✓
- 14 ✓
- 15 ✓
- 16 ✓
- 17 ✓
- 18 ✓
- 19 ✓
- 20 ✓
- 21 ✓
- 22 ✓
- 23 ✓
- 24 ✓
- 25 ✓
- 26 ✓
- 27 ✓
- 28 ✓
- 29 ✓
- 30 ✓
- 31 ✓
- 32 ✓

11-17-48

33

SACRIFICED (chloroform-exsanguination)  
AUTOPSY: No gross the  
TISSUE FOR SECTION 2 medulla 5 cervical 1 thoracic and  
4 lumbar cord (z.A.)

HISTOLOGY: Above levels reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Serum Dilution Method

Conv. Serum

1:16

Ph. 1001

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓
	31	✓
32	✓	
11-17-48	33	SACRIFICED (chloroform - exsanguination)

AUTOPSY: No gross the  
TISSUE FOR SECTION 2 medulla 5 cervical 2 thoracic  
 and 4 lumbar cord (2.A.)

HISTOLOGY: Above levels reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Serum Dilution Method

Conval. Serum

1:16

Ph. 1002

Date	Day	Remarks
Oct. 15, 1948	0	mild diarrhea.
	1	" "
	2	" "
	3	" "
	4	" "
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓ Thin; diarrhea
	26	✓ " "
11-11-48.	27	Moribund; Sacrificed (chloroform. exsanguination).

Autopsy: Thin; bowel congested; no gross TBz.

TISSUES FOR SECTION: Maxilla; midbrain; 2 medulla; 5 cervical;  
3 Thoracic; 3 lumbar cord. (Z-A.).

HISTOLOGY: Above segments reveal no histopath. changes.

DIAGNOSIS: NO POLIO.

Homologous Neutralisation Test

Rh. 1003-

Serum Dilution Method

Conval. Serum  
1:16

Date Day Remarks

Oct. 15, 1948

- 0 ✓
- 1 ✓
- 2 ✓
- 3 ✓
- 4 ✓
- 5 ✓
- 6 ✓
- 7 ✓
- 8 ✓
- 9 ✓
- 10 ✓

10-26-48

11

Partial Paralysis of both lowers. Weakness of both uppers; SACRIFICED Discarded

Homologous Neutralization Test

Ph. 1004

Serum Dilution Method

Conval. Serum

1:64

Date Day Remarks

Oct. 15, 1948

0 ✓  
 1 ✓  
 2 ✓  
 3 ✓  
 4 ✓  
 5 ✓  
 6 ✓  
 7 ✓  
 8 ✓  
 9 ✓  
 10 ✓

10-27-48

11 ✓ awkward clumsy  
 12 Partial Paralysis of both lowers. Weak back.  
SACRIFICED Discarded

Homologous Neutralization Test

Rh. 1005-

Serum Dilution Method

Conv. Serum  
1:64

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
10-24-48	9	Compl. pos. both lowers.
	10	Compl. pos. both lowers. Part. Pos. both upper. <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Rh. 1006

Serum Dilution Method

Conv. Serum  
1:64

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓
	31	✓
32	✓	
11-17-48	33	SACRIFICED (chloroform - exsanguination)

AUTOPSY: No gross the  
TISSUE FOR SECTION 2 medulla (cervical & thoracic and  
4 lumbar cord (2.A.)

HISTOLOGY: Above segments reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Rh. 2014 splenectomized

Serum Dilution Method

Control Serum

1:64

Date	Day	Remarks
Oct. 15, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
10-23-48	7	✓
	8	Partial Paralysis of right upper. Weakness of both lowers.
	9	Same plus weakness of left upper.
	10	Compl. par. both lowers; Part. Par. both upper. <u>SACRIFICED Discarded</u>

POLIO - 1947. MONKEY HISTORICAL.

PRK.#. Kancon. Torani. Cervical. Modula. Midbrain. Thalamus. Hypothal. Cy. Bulb. DAGNOSIS.

PRIMARY ISOLATION.

	NH; Pt.	NT.	NH; Pt.	Pt.	—	—	—	NT; NT.	POLIO.
	NH; Pt.	NT; Pt.	NH; Pt.	NH; Pt.	—	—	—	NT; N#	POLIO.
	GENERATION I		GENERATION II						
Rh. 89									
CYN. 88									
Rh. 153									

TITRATION OF GENERATION II

	R. D. (unit) g. of prot. Pt.	Serial reaction.	Pt. g. of prot. Pt.	Pt. g. of prot. 2 g. of prot. Pt.	Pans: 0.	POLIO "old" and "new" ser.
10 <sup>2</sup> Rh. 1813	0	0	0	0	0	POLIO
Rh. 1876	0	0	0	0	0	No polio.
7 Rh. 1810	0	0	0	0	0	No polio.
346	0	0	0	0	0	No polio.
347	0	0	0	0	0	No polio.
348	0	0	0	0	0	No polio.
352	0	0	0	0	0	No polio.
359	0	0	0	0	0	No polio.
361	0	0	0	0	0	No polio.
340						
357						
358						

(cont'd.)

DIAGNOSIS

Thalamus. Hypoth.

Milvrai.

Mohalla.

Conrad.

Novari.

Kamban.

- HOMOLOGOUS NEUTRALIZATION TEST -

SAME  
10<sup>-2</sup> Ph. 460

461

462

463

464

465

466

467

468

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470

471

472

473

(cont'd.)

[Redacted]

10<sup>-4</sup>

ACUTE  
SERUM.  
10<sup>-1</sup>

10<sup>-2</sup>

