

Polo 1947.

Cincinnati.

white female - age 17½ months -

ONSET - AUG. 13, 1947 - in evening - irritable and drowsy.  
Earlier in day was chilled by being sprayed with cold water from hose.

AUG. 14 - had chills, fever (101.8°); sulfonamide started by local M.D. - vomited once after drug. Stiff neck? - Anorexia - constip.

AUG. 15 - seemed improved, ~~but~~ walked about but weakness of legs noted

AUG. 16 - Cannot sit up and legs paralyzed. (Has walked for about 9 months)

Temp. 99.8 - does not appear acutely ill.  
Back stiff - (neck not especially)  
Does not withdraw legs upon painful stimuli. K.J's - absent - both legs flaccid. Can move toes on Babinski test - which is neg.

Abdominals present - no paralysis of bladder  
urinated in bed during re-epuncture.

CSF - 107 WBC - 97% monos Pandeytt

20cc of blood obtained

Throat swabs I

Saline Enema 200cc each given on two occasions without returns

AUG. 17 - still febrile - questionable paralysis of right arm to-day.

Throat swabs II

Stool I (small amount) after enema

8/18 - Febrile - condition same; Swabs III; stool II

8/19 - Febrile same; breathing  $\bar{o}$  diaphragm.; stool III

8-27 - Blood specimen III

NOV 10 1947

A. Stools:

Estimated Solids Present	—	20 gms.	} ± 6.5%
Fluid Present	—	320 c.c.	

(no distilled water added) -

Blended for one minute, low speed → ± 325 c.c.

For Centrifugation.	± 250 c.c.
For Re-Freezing	± 75 cc. (Box "C")

First Supernatant	= 194 c.c.
Ether Added	= 38 c.c.

untreated sediment = 40.0 c.c.

11/11/47. - Final Amount Treated Stool Suspension = 160 c.c.

Cult. (Before final centrifugation) : - × 6-10 colonies.  
 (After final centrifugation) : - × 1 colony.

7-20-48

Blended stool thawed and 8.0% removed for interference experiment with Sensing Polio. Remainder refrozen "C"

7-22-48

± 4.0% of etherized stool frozen in one 10<sup>cc</sup> amp. stored B-7-9

12-16-48

vial of stool of 7-22-48 Discarded

NOV 10 1947

B. Pharyngeal Swab Material.

Fluid Expressed	2.0 c.c.
Distilled Water Added	2.0 c.c.
	<hr/>
	4.0 c.c.

Ether Added 1.5 c.c.

11/11/47. After Removal Top Layer - 3.9 c.c. -

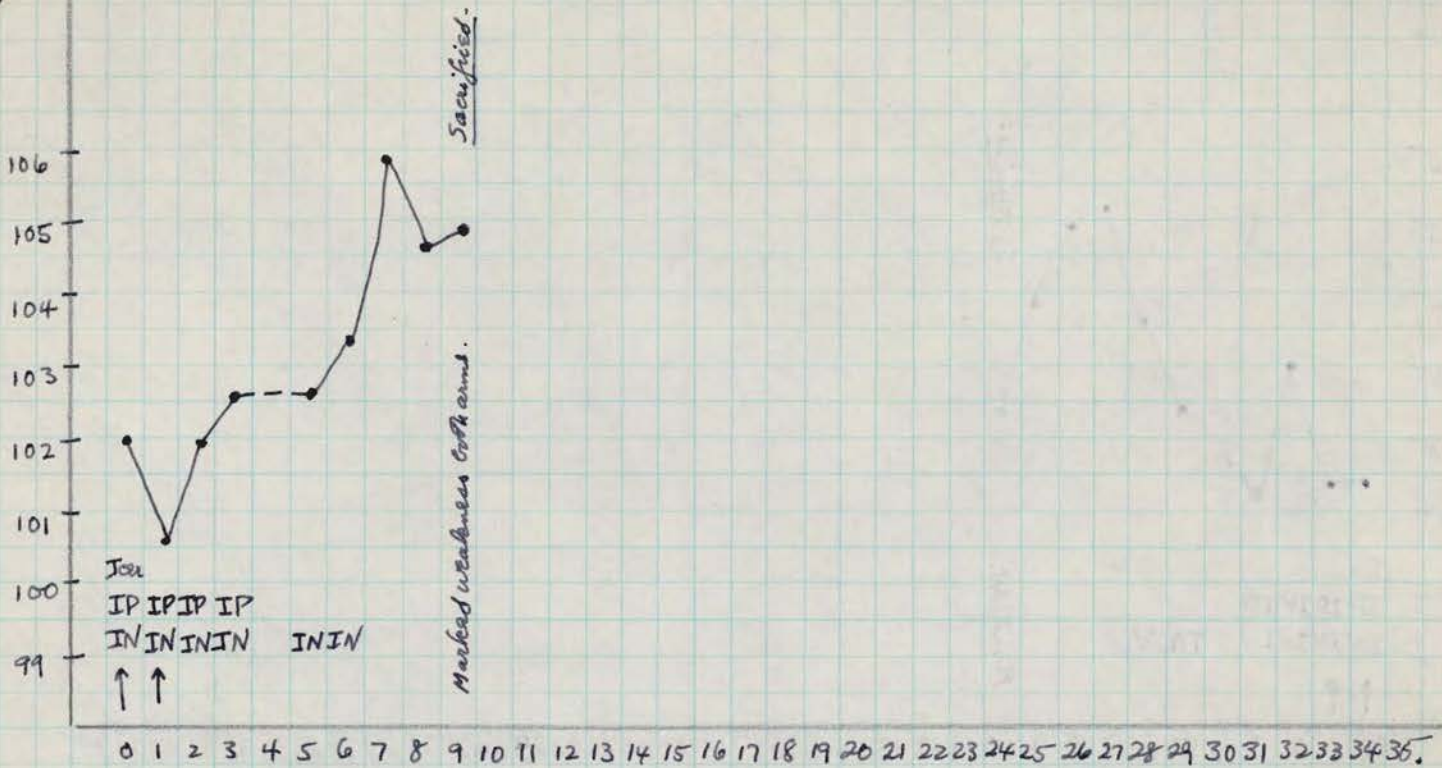
After Final Centrifugation = 3.4 c.c. -

Culture: - ✓✓✓

NOV 12 1947

Rhesus # 14-

Treated Pharyngeal Swabs - Icer. ✓  
 Treated Stools — IP ✓  
 Untreated Stools — IN. ✓



- 11/12/47 - Inoculated 1.50 c.c. Icer. - ; IP and IN done,
- 11/20/47 - No weakness or paralysis; cranial nerves intact; not excited; hair OK.
- 11/21/47. Very marked weakness both arms; cranial nerves intact; back and lower limbs seem OK. -- Sacrificed with chloroform - Autopsy:

COLON CONTENTS. Frozen in kustoid tube. (Storage cart 2)

HISTOPATHOLOGY: - Portions of cord levels and medulla; also Thalamus (2A)

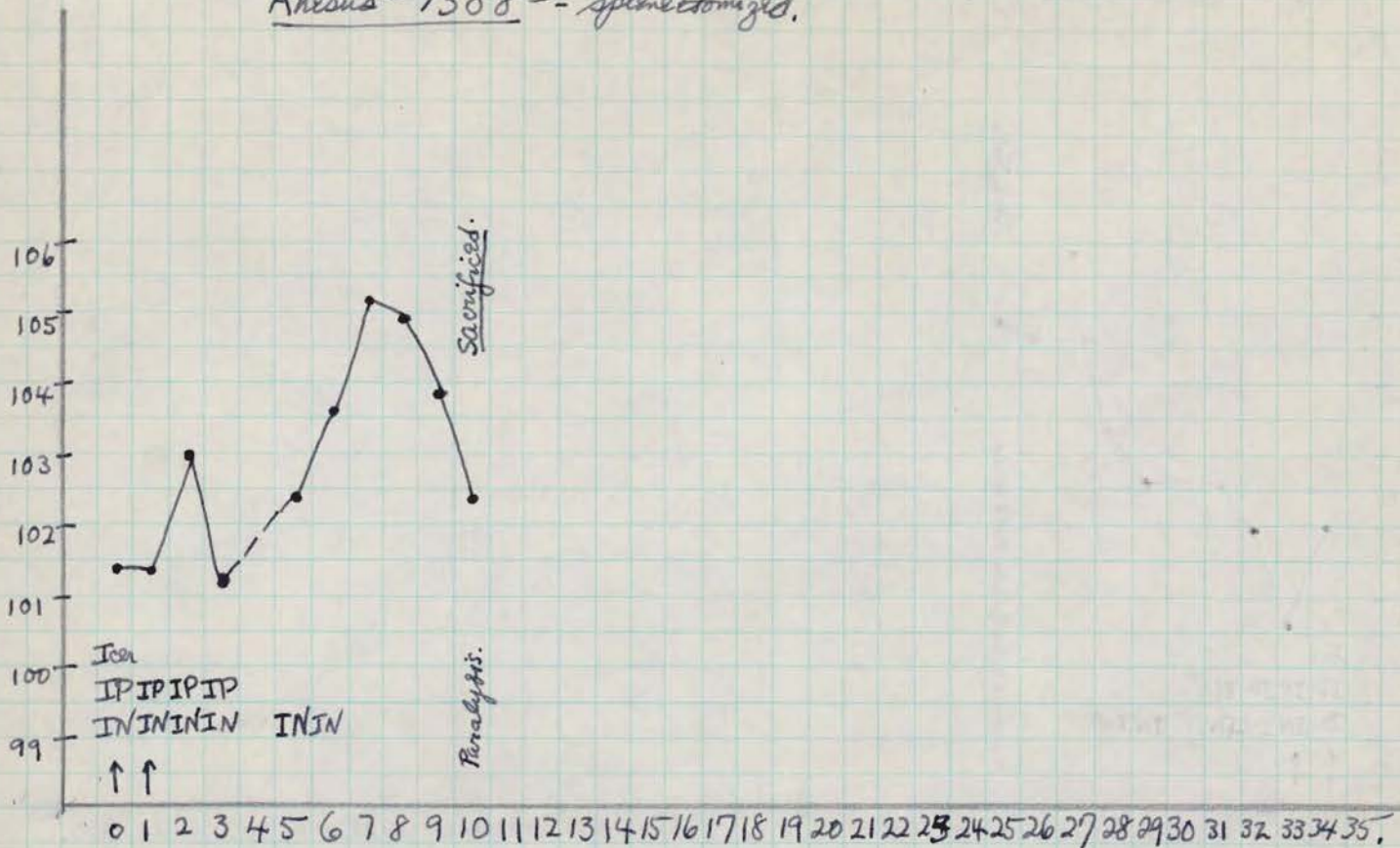
TISSUE FOR VIRUS: Levels of cord, medulla = 3.0 gms. - made up as 20% susp. in saline abraded with sand after mincing with scissors; lightly centrifuged for 5 minutes, supernatant cultured, inoculated IC into Rh. # 25 and Rh. # 26, and ± 10 cc. of the remaining 20% susp. was frozen in a glass ampoule (B-1-8). Culture: ✓✓✓  
 No gross evidence of tuberculosis.

Histology - Polio

NOV 12 1947

Treated Pharyngeal Swabs - I.C.  
 Treated Stools - IP.  
 Untreated Stools - IN.

Rhesus #1388 -- splenectomized.



11/12/47. - Inoculated with 1.50 c.c. I.C. -

11/20/47. - No par. or weakness; no cranial nerve signs; not excited; hair OK.

11/22/47. - Paralysis rt. hind limb; weakness left hind limb; no cranial nerve changes; arms + back OK. -- Sacrificed with chloroform.

Autopsy: No gross tuberculosis; consolidation or infarction of the rt. lower lobe; no accessory spleens detected.

HISTOPATHOLOGY -- lumbar; Thoracic; cervical segments of the spinal cord; also medulla. -- Portion of rt. lower lobe.

TISSUE FOR VIRUS: segments of spinal cord frozen in a Listeroid tube. (a-1)

COLON CONTENTS: - Frozen in large Listeroid tube. (storage box #2)

12/11/47 - Cord Thawed; made up as 20% susp. in saline; frozen one ampoule (B-1-8)  
 { Cont. wt. = 3.5 gms. Cult: VVV  
 { Saline = 17 c.c.

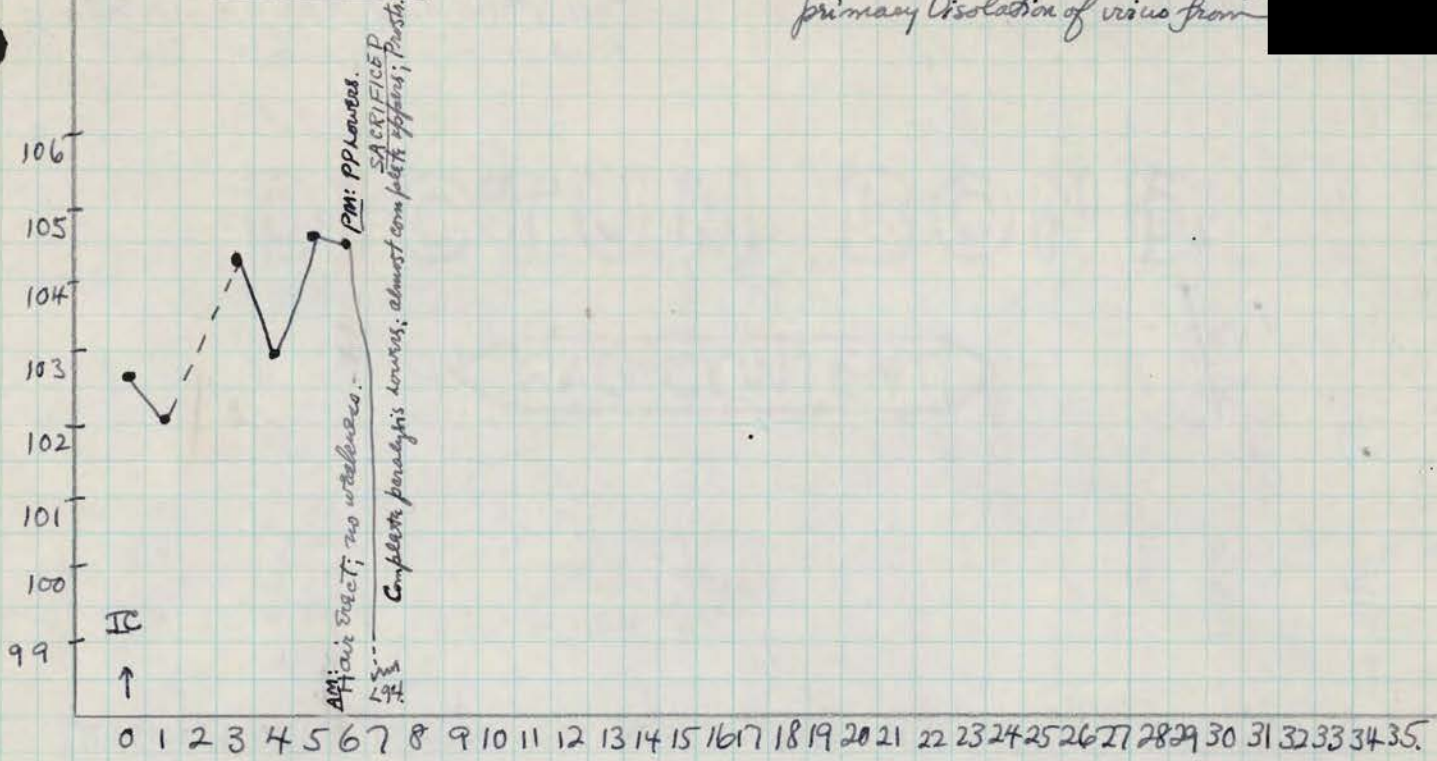
Histology - Polio

NOV 21 1947

POLIO - 1st Rhesus passage -  
Gen. II

Accumulated IC with 1.0 cc of 20% suspension  
in saline of the cord & medulla of Rh. # 14, used for  
primary isolation of virus from [redacted]

- Rhesus # 25 -



- 11/24/47 - Seems perfectly OK; temp. 104.3 -
- 11/26/47 - ? Early fulminant response; not excited; no weakness or paralysis; chills and tremors
- 11-27-47 - 2:30 P.M. - definite partial paralysis both lowers; voice poor

11/28/47. Prostrate; complete paralysis both lowers, almost complete both uppers; Sacrificed with Chloroform; Autopsy; no gross tuberculosis.

HISTOPATHOLOGY: cord levels; medulla; Thalamus. (ZA)

TISSUE FOR VIRUS: spinal cord frozen in Rustroid tube. (C-1)

12-11-47 - Cord of Rh. # 25 and # 26 (over) thawed, pooled and weighed = 6.0gms; made up suspension with 30cc. saline; frozen in two ampoules one in B-3, one in B-1; 7  
Cult: ✓✓✓

## Dec. 7 - Histology - Polio

7-22-48 Vial # 1 of thawed and 0.4 cc removed for interference experiment with Lansing Polio; remainder refrozen. (B-3-1)

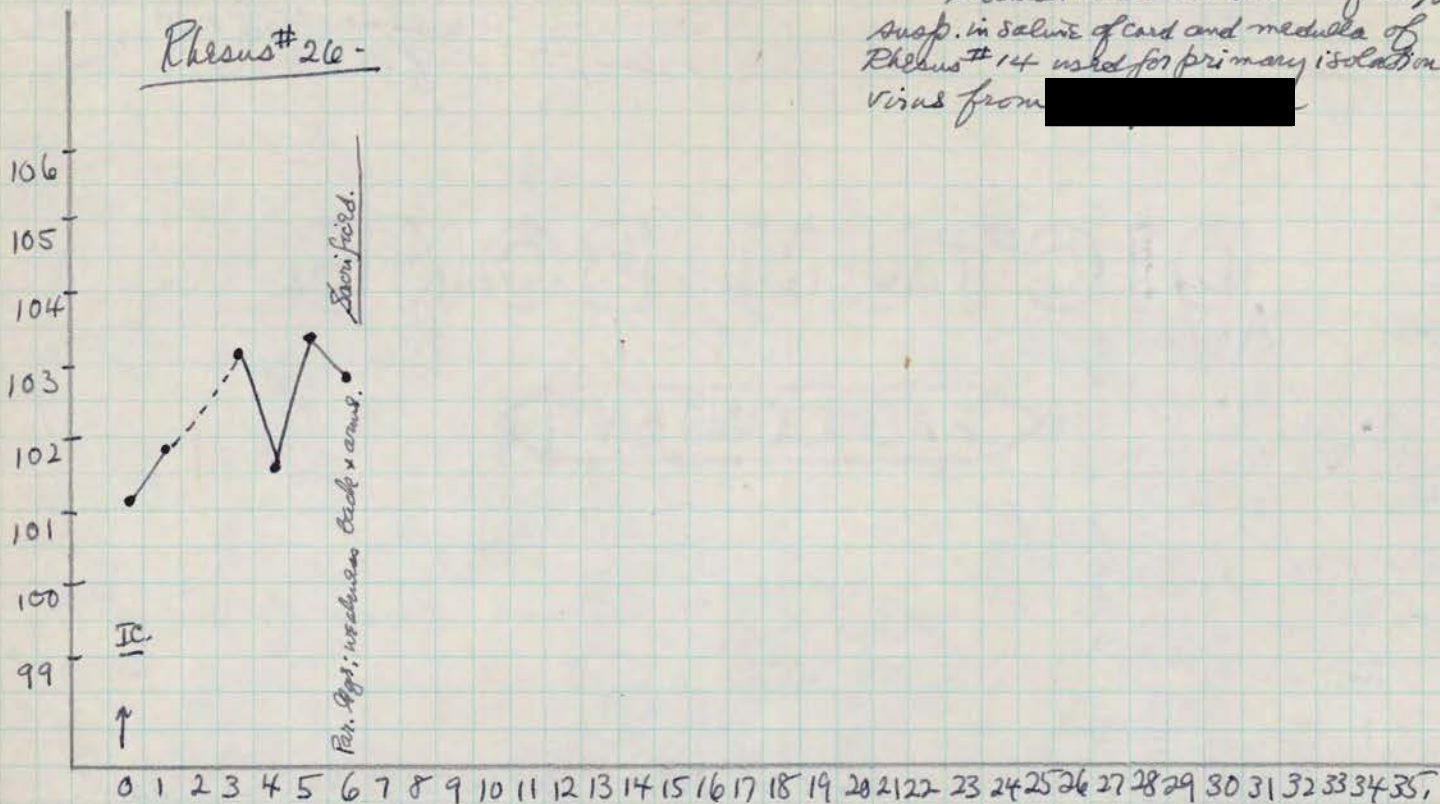
NOV 21 1947

POLIO - 1st rhesus passage.

GEN II

Inoculated IC with 1.0 cc. of 20% susp. in saline of cord and medulla of Rhesus #14 used for primary isolation of virus from [redacted]

Rhesus #26 -



11/26/47 ? Early pilomotor response.

11/27/47. Paralysis of legs; weakness of back and arms; cranial nerves intact. - Sacrificed with chloroform. -

Autopsy: - No gross evidence of tuberculosis.

HISTOPATHOLOGY: Lumbar, Thoracic, <sup>cervical</sup> cord levels and medulla.

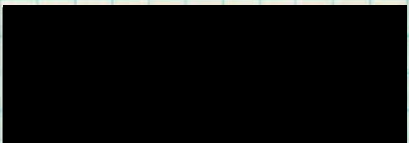
TISSUE FOR VIRUS: Spinal cord. Frozen in kasteroid tube. (C-1)

12-11-47. Thawed (see over for Rh. 25 + 26 pool.)

Histology - Polio

TITRATION OF HUMAN POLIO STRAINS

4-29-48



STRAIN (Gen. ii)

Virus used: [redacted] strain p<sub>6</sub> (gen. ii in monkeys) 20% in saline diluted in saline as indicated below.

Monkeys used: All normal rhesus monkeys.

Mixtures used: Dilutions as indicated below, made up in saline - kept at room temperature (1 °F) for one hour - then into refrigerator overnight for about 15 hours - then kept in bath during inoculations on 4-30-48.

Inoculum: 0.5 cc intracerebrally per monkey. 4-30-48.

10<sup>-3,3</sup>

DILUTION	MONKEY #	CLINICAL FINDINGS	POLIO	PATHOLOGY.	RESULT
10 <sup>-2</sup>	Rh 410	P <sub>7</sub>			3/3
	Rh 399	P <sub>6</sub>			
	400	P <sub>7</sub>			
10 <sup>-3</sup>	Rh 401	P <sub>8</sub>			2/3
	Rh 402	O:K <sub>29</sub>	○		
	Rh 403	P <sub>11</sub>			
10 <sup>-4</sup>	Rh 314	O:K <sub>29</sub>	○		0/3
	Rh 405	O:K <sub>29</sub>	○		
	Rh 406	O:K <sub>29</sub>	○		
10 <sup>-5</sup>	Rh 407	O:K <sub>29</sub>	○		0/3
	Rh 408	O:K <sub>29</sub>	○		
	Rh 409	O:K <sub>29</sub>	○		

APR 30 1948 TITRATION OF

STRAIN POLIO (Gen. II)

Rh # 410

10<sup>-2</sup>

DATE DAY REMARKS

4-30-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓

5-7-48 7 T= 98<sup>3</sup>. Complete paralysis both lowers, left upper. Weakness only right upper. Complete left facial paralysis.

~~SACRIFICED~~ (chloroform - exsanguination) Autopsy: No gross the. TISSUE FOR SECTION - ~~thalamus, hypothalamus, brain~~ Portions of lumbar and cervical cord. (Z-A)

TISSUE FOR VIRUS - Remainder of cord-medulla pooled with that of Rh 399 to make a 20% suspension in (34 cc) sterile saline. Wt. of pooled cords-medullae = 8.5 gms. ± 32 cc frozen in 3-20 cc. amps (designated Vials 1, 2, 3) and stored. Culture: X 100 Colonies (B-3-2) of Staph. albus.

12-16-48 suspension discarded

11-19-48 tissues for section discarded

APR 30 1948

TITRATION OF

STRAIN POLIO (Gen. II)

Rh # 399

10<sup>-2</sup>

DATE DAY REMARKS

4-30-48

0

✓

1

✓

2

✓

3

✓

4

✓

5

✓

5-6-48

6

T = 100%. Par. par. both lowers, left upper. Weakness v.t. upper, back, neck. (No cranial nerve involvement)

SACRIFICED (chloroform-exsanguination) Autopsy: No gross lbc.

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

TISSUE FOR VIRUS - Remainder of cord and medulla frozen in a histoid fluid. (v-2)

Context Culture: ✓✓✓

5-7-48: Cord-medulla of Rh 399 thawed and pooled with that of Rh 410 to make a 25% suspension in saline (see overleaf).

HISTOLOGY: Extensive early acute neuronophagia with mild PV cuffing (lumbar and cervical)

DIAGNOSIS: POLIO (Acute)

APR 30 1948 TITRATION OF

STRAIN POLIO (Gen. II)

Rh # 400

10<sup>-2</sup>

DATE	DAY	REMARKS
4-30-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
5-7-48	7	AM. T=104°. Par. par. rt. upper. Rt. wrist drop. P.M. Same.
5-8-48	8	T=103 - Par. par. both up, and lowers. Rt. wrist drop. Back weak; weak o.b. Definite pilomotor response.
5-9-48	9	Partial paralysis of all 4 extremities; voice weak;
5-10-48	10	Quadriplegia - prostrate. Back, neck, voice weak.
5-11-48	11	Same.
5-12-48	12	"
	13	Quadriplegia; prostrate.
	14	unchanged.
	15	"
	16	DEAD: Autopsy: no gross TBC.

TISSUE FOR PATHOLOGY: Lumbar and cervical cord (Z4)

11-19-48 tissues discarded

APR 30 1948

TITRATION OF

STRAIN POLIO (Gen II.)

Rh # 401

 $10^{-3}$ 

DATE DAY REMARKS

DATE	DAY	REMARKS
4-30-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
5-8-48	8	T=102 - Par. par. both uppers. Weakness both lowers. Tremors: piloerector response.
5-9-48	9	Partial paralysis both uppers; marked weakness both lowers.
5-10-48	10	Comp. par. both lowers; par. par. both uppers. Alert - attempts to be active. Wt. v.c.k. T=103 <sup>2</sup> P.M. - <u>SACRIFICED</u> (chloroform-exsanguination) TISSUE FOR SECTION - Portions of lumbar and cervical cord. (2-A) TISSUE FOR VIRUS - Remainder of cord-medulla frozen in a heteroid tube. (a-1)
5-17-48		Cord & medulla of RL401 thawed and made up as a 20% susp in 20% sterile saline. Wt. of cord = 4.9 gms. ± 10% frozen in one -20% amp. stored (B-2-3) Culture: ✓✓
11-19-48		Tissues for section discarded

APR 30 1948

TITRATION OF

STRAIN POLIO (Gen II)

Rb # 402.

 $10^{-3}$ 

DATE DAY REMARKS

4-30-48 0 ✓  
 1 ✓  
 2 ✓  
 3 ✓  
 4 ✓  
 5 ✓  
 6 ✓  
 7 ✓

5-8-48 8 T=101<sup>4</sup>. ✓

5-9-48 9. ? Excited.

5-10-48 10 T=102<sup>3</sup>. Pilomotor response; excited. Chummy.5-11-48 11 T=103<sup>2</sup>. " " " "5-12-48 12 T=104<sup>2</sup>. " " " "5-13-48 13 T=102<sup>6</sup>. " " " "5-14-48 14 T=102<sup>6</sup>. " " " "

5-15-48 15 Pilomotor resp; excited. -

5-16-48 16 unchanged -

5-17-48 17 Pilomotor resp; excited.

5-18-48 18 Pilomotor t; excited.

5-19-48 19 ? excited.

5-20-48 20 ✓

5-21-48 21 ? excited.

22 ✓

23 ✓

24 ✓

25 ✓

26 ✓

27 ✓

28 ✓

5-29-48 29 ✓

SACRIFICED (chloroform-exsanguination)

TISSUE FOR SECTION - thalamus, midbrain, medulla, thoracic, cervical, &amp; lumbar cord levels (Z-A)

APR 30 1948

TITRATION OF [REDACTED]  
Rh # 403.

STRAIN POLIO (Gen. II)

10<sup>-3</sup>

DATE DAY REMARKS

DATE	DAY	REMARKS
4-30-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
5-8-48	8	T=104° - Excited - pilomotor response
5-9-48	9	Excited; pilomotor +++
5-10-48	10	T=104° " " ; clumsy.
5-11-48	11	T=101°. Quadriplegia. Can still move head mod. well. Alert expression, voice weak.
5-12-48	12	T-not taken. Found <u>DEAD</u> in a.m. Autopsy: no gross lcs. TISSUE FOR SECTION: Two portions from each of lumbar and cervical cord (Z-A)

11-19-48 tissues for section discarded

APR 30 1948

TITRATION OF

STRAIN POLIO (Gen II)

Rh # 314.

10<sup>-4</sup>

DATE DAY REMARKS

4-30-48

0

✓

1

✓

2

✓

3

✓

4

✓

5

✓

6

✓

7

✓

8

✓

9

✓

10

✓

5-11-48

11

✓

T=103°

5-12-48

12

✓

T=103°

13

✓

14

✓

15

✓

16

✓

17

✓

18

✓

19

✓

20

✓

21

✓

22

✓

23

✓

24

✓

25

✓

26

✓

27

✓

28

✓

5-27-48

29

✓

SACRIFICED (chloroform-exsanguination)  
 TISSUE FOR SECTION - Thalamus, midbrain, medulla, single  
 sections of lumbar, thoracic, & cervical cord (Z-A)

APR 30 1948

TITRATION OF

STRAIN

POLIO

(Gen II)

Rh # 405

10<sup>-4</sup>

DATE	DAY	REMARKS
4-30-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
5-11-48	11	T = 103 <sup>8</sup> ? excited.
5-12-48	12	T = 103 <sup>5</sup> ✓
	13	✓
	14	? pilomotor response.
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
8-29-48	29	✓

SACRIFICED (aborted - exsanguination)  
 TISSUE FOR SECTION - thalamus, mid brain, medulla,  
 single section of cervical, thoracic, lumbar cord (2-A)

APR 30 1948

TITRATION OF

STRAIN POLIO (Gen. II)

Rh # 406.

10<sup>-4</sup>

DATE	DAY	REMARKS
4-30-48	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
5-11-48	11	T = 102 <sup>4</sup> ✓
5-12-48	12	T = 103 <sup>2</sup> Excited. Pilomotor response.
5-13-48	13	T = 102 <sup>2</sup> Pilomotor response
5-14-48	14	T = 102 <sup>0</sup> " "
	15	Pilomotor response.
	16	seems o.k.
	<del>17</del>	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
5-29-48	29	✓ SACRIFICED (chloroform-exasanguination) TISSUE FOR SECTION - Thalamus, midbrain, medulla, single sections of cervical, thoracic, lumbar cord (24A)

APR 30 1948

TITRATION OF [REDACTED]  
Rh # 407

STRAIN POLIO (Gen. II)

10<sup>-5</sup>

DATE DAY REMARKS

4-30-48 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 ✓  
28 ✓

5-29-48

29

✓ SACRIFICED (chloroform-exsanguination)  
TISSUE FOR SECTION - thalamus, midbrain, medulla,  
single sections of cervical, thoracic, lumbar  
cord (Z-A)

HISTOLOGY: NO pathological findings.

DIAGNOSIS: NO POLIO.

APR 30 1948

TITRATION OF

STRAIN POLIO (Gen. II)

Rh # 408.

10-5

DATE DAY REMARKS

4-30-48	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	✓
	28	✓

5-29-48

29 ✓ SACRIFICED (chloroform-exasanguination)  
 TISSUE FOR SECTION - thalamus, midbrain, medulla, single  
 sections of cervical, thoracic, lumbar cord (I-A)

HISTOLOGY: Thalamus and medulla each have one vessel with uniserial (incomplete) cuff.

DIAGNOSIS: NO POLIO.

APR 30 1948

TITRATION OF

STRAIN POLIO (Gen II)

Rh # 409

10<sup>-5</sup>

DATE	DAY	REMARKS
4-30-48	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	✓
	28	✓
5-29-48	29	✓

SACRIFICED: (chloroform-exsanguination)  
TISSUE FOR SECTION - thalamus, mid brain, medulla,  
single sections of cervical, thoracic, lumbar  
cord. (Z-A)

# NEUTRALIZATION TEST IN MONKEYS.

STRAIN POLIO VIRUS VS. SERA.

6-17-48.

Virus used: Generation II of [redacted] virus - same as filtered on 4-29-48.

Sera used: two sera from [redacted]  
 ACUTE :- 8/16/47 (14<sup>th</sup> day of illness)  
 CONVALESCENT :- 11/13/47. (90<sup>th</sup> day...)

Incubation: Serum-virus and saline-virus mixtures at room temp. (74°F) for one hour; then to ice box overnight (±15 hrs); then to an ice-bath during inoculations on 6-18-48.

Monkeys: Normal rhesus (NFIP Farm) except 1926; 1931; 1784 (reference tomized monkeys rec'd from Dr. H. Schmidt.)

Inoculum: 0.5 cc I.C. per monkey. -

	10 <sup>-1</sup>	10 <sup>-2</sup>	10 <sup>-3</sup>	10 <sup>-4</sup>
<u>SALINE</u> <u>CONTROL</u>		Rh. 639 O:K <sub>35</sub> 1926 P <sub>8</sub>	640 P <sub>8</sub> 641 P <sub>7</sub> 642 P <sub>7</sub>	643 O:K <sub>35</sub> 644 P <sub>10</sub> 645+ D <sub>10</sub>
<u>ACUTE</u> <u>SERUM</u> (4 <sup>th</sup> day)	Rh. 1931 628 O:K <sub>35</sub> 629 P <sub>12</sub>	630 O:K <sub>35</sub> 631 P <sub>14</sub> 632 O:K <sub>38</sub>	633 O:K <sub>35</sub> 634 O:K <sub>35</sub> 635 O:K <sub>35</sub>	636 O:K <sub>35</sub> 637 D <sub>9</sub> 638 O:K <sub>35</sub>
<u>CONVALESCENT</u> <u>SERUM</u> (9 <sup>th</sup> day)	Rh. 1784 D <sub>5</sub> 617 D <sub>3</sub> 618 P <sub>6</sub>	619 P <sub>15</sub> 620 D <sub>7</sub> 621 O:K <sub>35</sub>	622 O:K <sub>35</sub> 623 O:K <sub>35</sub> 624 P <sub>12</sub>	625 O:K <sub>35</sub> 626, no tissue found. 627 O:K <sub>35</sub>

HOMOLOGOUS NEUTRALIZATION TEST

Rh 639

Saline Control 10<sup>-2</sup>

JUN 18 1948

DATE	DAY	REMARKS
	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	✓
	33	✓
	34	✓

7-23-48. 35 ✓ Sacrificed (chloroform-exsanguination) - Autopsy: no gross TBC.

TISSUE FOR HISTOLOGY: cervical; <sup>Thoracic</sup> lumbar cord; medulla; midbrain; and thal amus. (Z-A.)

HISTOLOGY: (N.B) - There are only 2 cervical, 1 lumbar, 1 Thoracic level, and only one level of medulla; also both inf. and sup. collicular levels and corp. striatum are present. - cannot find any other cord levels! (see also Rh. 620 which only has 2 cord levels; there is something very wrong!).

Examination shows nothing in above levels except corp. striatum where there is lightly peppered interstitial glial infiltration and very few foci of PV infiltration. DIAGNOSIS: NO POLIO

# Homologous - Neutralization Test

Rh 1926 splenectomized

Saline Control 10-2

DATE DAY REMARKS

JUN 18 1948

0 ✓  
1 ✓  
2 ✓  
3 ✓  
4 ✓  
5 ✓  
6 ✓  
7 ✓

6-26-48

8 Compl. Par. left lower. Partial par. of right lower.  
9. Quadriplegia; aphonia.  
10 No change  
11 Same  
12 "  
13 No change  
14 " "  
15 Same  
16 No change  
17 " "  
18 " "  
19 " "  
20 Quadriplegia  
21 "  
22 "  
23 "  
24 "  
25 "  
26 "  
27 "  
28 Quadriplegia  
29 "  
30 "  
31 "  
32 "  
33 "  
34 "

7-23-48

35 "  
36 "

7-26-48

38

Quadriplegia

8-5-48

48

Quadriplegia

8-10-48

57

FOUND DEAD

AUTOPSY: No gross the Sections for "old" changes.

TISSUE FOR SECTION Several segments of lumbar & cervical cord;  
single sections of thoracic medulla (thalamus and midbrain) (2 A.)  
discarded 9/17/48.

11-19-48 Tissues discarded

## Homologous Neutralization Test

Rh 640

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

DATE	DAY	REMARKS
JUN 18 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
6-25-48	7	Extreme diarrhea; General weakness; weak voice
6-26-48	8	Compl. Par. left upper; Partial par. right upper & both lowers
	9	Same.
6-28-48	10	Quadriplegia; aphonia <b>Bled for serum.</b>
6-29-48	11	<u>FOUND DEAD</u>

AUTOPSY: No gross lbc.TISSUE FOR SECTION: Single segments of lumbar, cervical cord, and medulla. (2A)HISTOLOGY:

Acute neuronophagia in all levels examined. The medulla is only mildly involved, chiefly in reticular formation.

DIAGNOSIS: POLIO (Acute)

Homologous Neutralization Test.

Rh 641

Saline Control  $10^{-3}$

DATE	DAY	REMARKS
JUN 18 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
6-25-48	7	<p>Compl. Paralysis of left upper; Part. par. of other three extremities</p> <p><u>SACRIFICED</u>: (chloroform - exsanguination)</p> <p><u>AUTOPSY</u>: No gross tbc.</p> <p><u>TISSUE FOR SECTION</u>: Single segment of lumbar &amp; cervical cord (2A)</p> <p><u>TISSUE FOR VIRUS</u>: Cord &amp; medulla of Rh 641 pooled with that of Rh 642 (weight pooled = 9.0gms.) to make a 20% susp in 36cc of sterile saline. ± 32cc of susp frozen in three 20cc amps. Vials # 1, 2, 3. Stored (B-3-8)</p> <p><u>Culture</u>: ✓✓</p>

HISTOLOGY:

Lumbar and cervical segments show extensive acute neurophagia in early stage.

DIAGNOSIS: POLIO (Acute)

# Homologous Neutralization Test

Rh 642

Saline Control 10-3

JUN 18 1948

DATE	DAY	REMARKS
	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
6-25-48	7	Partial Paralysis of all four extremities.

SACRIFICED: (chloroform emsanguination)

AUTOPSY: No gross tbc.

TISSUE FOR SECTION: single segments of lumbar & cervical cord (2A)

TISSUE FOR VIRUS: cord and medulla pooled with that of Rh641 to make a 20% susp in sterile saline (see latter).

6/28 - lacerated when trimmed

HISTOLOGY: (lumbar cord only)

Reveals acute neuronophagia (diffuse) in early stage with numerous polys; and a mod, severe degree of PD cuffing.

DIAGNOSIS: POLIO (Acute)

# Homologous - Neutralization Test

Rh 643

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

DATE DAY REMARKS

JUN 18 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 ✓
- 33 ✓

diarrhea

7-23-48.

35 ✓ Sacrificed (chloroform - exsanguination) - Autopsy - no gross TB.

TISSUE FOR HISTOLOGY (Cervical, Thoracic, Lumbar cord levels; medulla, midbrain; Thalamus. (Z-A.)  
9-11-48 Thalamus + midbrain discarded.

HISTOLOGY: These segments show no neuronal or nerve root changes

DIAGNOSIS: NO POLIO.

## Homologous Neutralization Test

Rh 644

Saline Control  $10^{-4}$ 

DATE	DAY	REMARKS
JUN 18 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	Shin
	9	Thru: no diarrhea noted.
6-28-48	10	Compl. paralysis of both lowers; Part par. both uppers; aphonia → Blood for serum
	11	No change
6-30-48	12	<u>FOUND DEAD</u>
		<u>AUTOPSY</u> : No gross the
		<u>TISSUE FOR SECTION</u> : single segments of lumbar, thoracic and cervical cord, and medulla. (2 A)
		<u>11-23-48 Tissues discarded</u>

## Homologous - Neutralization Test

Rh 645

Saline Control 10-4

DATE	DAY	REMARKS
JUN 18 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	DEAD:

Autopsy: 1) Very extensive oesophagostomum infestation.  
 2) Common bile duct dilated to size of average lead pencil; 4.0 cc aspirated therefrom. - The gall bladder is thin walled, normal to sl. Enlarged in size, and contains bile; no obstruction i.e. compression of gall-bladder → flow of bile into the ampoulla of Vater (demonstrated by ABZ).

Cult (GAP) of Common Bile Duct Bile: - ✓✓✓

TISSUE FOR HISTOLOGY: Thalamus; midbrain; medulla;  
 levels of cord at lumbar; Thorax; cervical. (2-A).

HISTOLOGY: Spinal cord levels show extensive acute (early) neuronophagia. - Medulla, midbrain, Thalamus all show acute neuronophagia and PV cuffing.

DIAGNOSIS: POLIO ("Acute")

# Homologous Neutralization Test

Rh 1931 Splenectomized

acute serum 10<sup>-1</sup>

DATE	DAY	REMARKS
JUN 18 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
6-25-48	7	Definite weakness of all 4 extremities, weak back; head tremors.
6-26-48	8	Part. Par. of all extremities
	9	No change.
6-28-48	10	Compl. paralysis of both lowers; Part. Par. of both uppers. <span style="color: red;">Bled for serum</span>
	11	No change
	12	" "
	13	Compl. par. both lowers; Part. par. both uppers.
	14	No change?
	15	Same
	16	" "
	17	" "
	18	" "
	19	" "
	20	" "
	21	Compl. par. both lowers; Part. par. both uppers.
	22	No change
	23	" "
	24	" "
	25	" "
	26	" "
	27	" "
	28	Compl. Par. lowers. Part. par. both uppers
	29	No change
	30	" "
7-19-48	31	" " <span style="color: red;">Bled for serum</span>
	32	" "
7-21-48	33	Comp par both lowers & left upper; part par right upper
	34	No change
	35	" "
	36	" "
7-26-48	38	" "
8-5-48	48	No change
8-20-48	63	Compl. Par. both lowers. Part. Par. both uppers.
9-27-48	101	No Change; Monkey can not sit up but moves back and head well
9-30-48		<span style="color: red; text-decoration: underline;">Bled for Serum</span>
		<u>10-7-48</u> - Homologous challenge IC (see record).

# Homologous Neutralization Test

Rh 628

acute serum  $10^{-1}$

JUN 18 1948

DATE DAY REMARKS

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 ✓

diarrhea

31 ✓  
 32 ✓  
 33 ✓  
 34 ✓

7-23-48.

35 ✓ Sacrificed (chloroform-exsanguination) - Autopsy: no gross TB.  
 TISSUE FOR HISTOLOGY: lumbar; cervical; Thoracic cord levels; medulla; midbrain; Thalamus. (Z-A.)

HISTOLOGY: NO pathological changes.

DIAGNOSIS: NO FOLIO

# Homologous Neutralization Test

Rh 629

acute serum  $10^{-1}$

JUN 18 1948

DATE	DAY	REMARKS
	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
6-27-48	11	? Weakness of both lowers
6-30-48	12	Quadriplegia; aphonia Bled for serum.
	13	No change
	14	" "
	15	Same
	16	"
	17	"
	18	"
	19	"
	20	"
	22	Quadriplegia.
	23	"
	23	"
	24	"
	25	"
	26	"
	27	"
	28	Quadriplegia; Compl. bilat. wrist drop
	29	No change
	30	" "
7-19-48	31	" " Bled for serum
	32	" "
	33	Same
	34	"
	35	"
	36	"
7-26-48	38	Moribund - SACRIFICED (obitiform-exsanguination) AUTOPSY - to gross the TISSUE FOR SECTION - single segment of lumbar & cervical cord (2.A)

HISTOLOGY: Neuronal loss; severe root degeneration, glial replacement

DIAGNOSIS: POLIO ("old")

# Homologous Neutralization Test

Rh 630

dante Serum 10-2

DATE DAY REMARKS

JUN 18 1948

0 ✓  
1 ✓  
2 ✓  
3 ✓  
4 ✓  
5 ✓  
6 ✓  
7 ✓  
8 ✓  
9 ✓  
10 ✓  
11 ✓  
12 ✓

13 thin diarrhea  
14 same  
15 "  
16 "  
17 "  
18 thin  
19 thin gen. weakness  
20 thin disinclined to climb  
21 same  
22 no change  
23 "  
24 "  
25 "  
26 "  
27 "  
28 "  
29 "  
30 "  
31 "

7-20-48 32 Severe diarrhea; general weakness; disinclined to climb  
33 No change  
34 behaves like a pet; somewhat thin but local weakness

7-23-48 35 Diarrhea; thin. — Sacrificed (Chloroform - asphyxiation) —  
Autopsy: Thin; no gross TBC.  
Tissue for histology: <sup>(4)</sup> cervical, <sup>(3)</sup> lumbar, <sup>(2)</sup> thoracic cord levels;  
2 medulla; midbrain; thalamus. (2-A.) — Midbrain + thalamus discarded on 9/17/48.

HISTOLOGY: Above segments show no pathology.

DIAGNOSIS: NO POLIO

## Homologous Neutralization Test

RL 631

acute serum [10-2]

JUN 18 1948

DATE	DAY	REMARKS
	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
7-2-48	14	Partial Par. of both lowers; Weakness of uppars.
	15	No change
	16	" "
	17	No Change
7-6-48	18	Comp. par of right lower; part par left lower; weakness uppars
	19	No Change
	20	" "
	21	" "
	22	" "
	23	" "
	24	" "
	25	" "
	26	" "
	27	Compl. Par. right lower; Part. Par. left lower
	28	No change
	29	" "
	30	" "
	31	" "
	32	" "
	33	" "
	34	" "
	35	" "
	36	No change
7-26-48	38	Compl. Par. right lower; Part. Par. left lower.
8-5-48	48	No change
8-20-48	63	Part. Par. both lowers.
9-27-48	101	No Change; Monkey can sit up and climb well.
9-30-48		<u>Bled for serum</u>
		<u>10-7-48. Homologous challenge IC. (see record).</u>

# Homologous Neutralization Test

Rh 632

Acute Serum [10-2]

DATE	DAY	REMARKS
JUN 18 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	✓	Severe diarrhea
33	✓	" "
34	✓	" "
35	✓	" "

7-26-48

38 SACRIFICED (chloroform-exasanguination)  
 AUTOPSY: To gross the  
 TISSUE FOR SECTION ~~liver~~ segments of lumbar thoracic<sup>(2)</sup> and cervical cord; medulla, thalamus and midbrain (Z.A.)  
 discarded 9/17/48.

HISTOLOGY: NO pathology.

DIAGNOSIS: NO POLIO

# Homologous - Neutralization Test

Rh 633

acute serum 10<sup>-3</sup>

DATE DAY REMARKS

JUN 18 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 ✓
- 33 ✓
- 34 ✓

7-23-48.

35 ✓ Observation terminated. - Monkey tag # changed to 633-X;  
and monkey to be used again. -  
8-3-48 given to Drs. Sabin and Hambra for Plasmaroid and  
S.N. 13058-17 Expts.

# Homologous Neutralization Test

RH 634

acute serum  $10^{-3}$

JUN 18 1948

DATE	DAY	REMARKS
	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	✓
	33	✓
	34	✓
7-23-48.	35	✓ Observation terminated. Monkey tag <sup>#</sup> changed to 634-X; monkey to be used again.
		<u>8-3-48</u> Given to Drs. Sabin and Gamboa for Plasmacid and S.N. <u>13058-17</u> Expt.

# Homologous Neutralization Test

Rh 635

acute serum 10<sup>-3</sup>

JUN 18 1948

DATE DAY REMARKS

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	✓
33	✓
34	✓

7-23-48. 35 ✓ Observation terminated. - Monkey tag # changed to 635-X; monkey to be used again.

8-3-48 Given to Drs. Sabin and Hammon for Plasmarid and S.N. 13058-17 Expt.

# Homologous Neutralization Test

Rh 636

Ante Serum 10<sup>-4</sup>

**JUN 18 1948**    DATE    DAY    REMARKS

- 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 ✓
- 33 ✓
- 34 ✓

7-23-48. 35 ✓ Observation terminated. Monkey tag# changed to 636-X; monkey to be used again.

8-3-48 Given to Drs. Salim & Tomara for Plasmarid and, S.N. 13058-17. Expt. - Used by them for Rx of SN 13058-17 and Hoferkamp virus which caused paralysis on 8/25/48. Monkey returned to AJS on 8/30/48 for use as a Hoferkamp convalescent monkey.

# Homologous Neutralization Test

RH 637

doute Serum 10-4

DATE	DAY	REMARKS
JUN 18	1948	0 ✓
		1 ✓
		2 ✓
		3 ✓
		4 ✓
		5 ✓
		6 ✓
		7 ✓
		8 ✓
		9 ✓
		10 ✓
		11 ✓
		12 ✓
		13 ✓
		14 ✓
		15 ✓
		16 ✓
		17 ✓ (Thin)
		18 ✓ (Thin)
		19 thru very weak and passive.

DIED 2:00 PM.

AUTOPSY: No gross the. Discarded 9/17/48.

TISSUE FOR SECTION: Midbrain, thalamus, pons, medulla.  
and numerous segments of cervical, thoracic and lumbar cord (2 A)

HISTOLOGY: No neuronal or root changes in above segments.

DIAGNOSIS: NO POLIO

# Homologous Neutralization Test

Rh 638

date serum 10-4

JUN 18 1948

DATE DAY REMARKS

0	✓	
1	✓	
2	✓	
3	✓	
4	✓	
5	✓	
6	✓	
7	✓	
8	✓	
9	✓	
10	✓	
11	✓	
12	✓	
13	✓	
14	✓	
15	✓	
16	✓	
17	✓	(Thin)
18	✓	(Thin)
19	✓	
20	✓	
21	✓	
22	✓	
23	✓	
24	✓	
25	✓	thin
26	✓	
27	✓	mild diarrhea
28	✓	then severe diarrhea
29	✓	same
30	✓	"
31	✓	"
32	✓	"
33	✓	"
34	✓	"

7-23-48 35 ✓ " Observation terminated; monkey tag # changed to 638-X; monkey to be used again.

→ Sacrificed (chloroform-exsanguination) - Autopsy - very

Thin; no gross Tbc.

TISSUE FOR HISTOLOGY: <sup>single levels of</sup> lumbar, cervical, Thoracic cord  
 levels; medulla; midbrain; Malampus. (2-A)  
 9-17-48 " discarded.

HISTOLOGY: No neuronal or root changes

DIAGNOSIS: NO POLIO

# Homologous Neutralization Test

Rh 1784 Splenectomized

Convalescent serum  $10^{-1}$

JUN 18 1948

DATE	DAY	REMARKS
	0	✓
	1	✓
	2	✓
	3	✓
	4	✓ Generally weak.
6-23-48	5	DEAD A.M.

Autopsy: Adhesive pleuritis (ret. Thoracic cage) with mod. dense bands; no exudate. - Otherwise neg.

TISSUES FOR SECTION: lumbar; Thoracic; cervical; medulla; midbrain; Thalamus. (Z-A). [Lung+pleura → ZA]  
(entire CNS soft and pulsatious.)

HISTOLOGY: As noted above, tissues pulsatious; altho Thalamus, midbrain and medulla fairly well fixed and stained - and are entirely normal. Cord levels - lumbar OK; cervical/thoracic too poor to judge state of tissues.

DIAGNOSIS:

NO EVIDENCE FOR POLIO

## Homologous Neutralization Test

Rh 617

Convalescent Serum

[10<sup>-1</sup>]

DATE DAY REMARKS

JUN 18 1948

0

✓

1

✓

2

✓

3

T = 93°F. - Has tonic spasm of both lower & left upper; seems to be alert; staccato cry - ? post-inoculation injury; Died at ca 3<sup>30</sup> p.m. - Autopsy: → massive intraventricular hemorrhage with a firm cast of blood clot in the lateral, third, fourth ventricles and filling the aqueduct entirely. ---

TISSUES FOR HISTOLOGY: Thalamus; midbrain; ~~metallo;~~  
cranial ~~nerve;~~ ~~lumbar cord~~ (2A).

HISTOLOGY:

Ventricular system and aqueduct show blood clots, not attached, with beginning lamination.

DIAGNOSIS: HEMORRHAGE

# Homologous Neutralization Test

~~RL 818~~ Ph. 618

Convalescent Serum [10-1]

DATE	DAY	REMARKS
JUN 18 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
6-24-48	6	Compl. Paralysis of right upper, Part. Par. left upper. Weakness both lower, <sup>ABS</sup> marked tremors and weak voice. T=99%. <i>-Bled for serum.</i>
6-25-48	7.	<u>DEAD.</u> - Autopsy: no gross TBC.

*discarded 9/17/48.*

TISSUE FOR HISTOLOGY: cord levels; Palanus; medulla; midbrain. (ZA)-

11-49-48 tissues discarded

# Homologous Neutralization Test

RL 619

Convalescent Serum 10<sup>-2</sup>

DATE	DAY	REMARKS
JUN 18 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
7-3-48	15	Partial Paralysis of all 4 extremities
	16	No change
	17	Quadriplegia
	18	No change
	19	" "
	20	" "
	21	No change
	22	" "
	23	" "
	24	" "
	25	" "
	27	" "
7-16-48	28	Compl. Par. both lowers & right upper; Part Par. left upper
	29	No change
	30	" "
	31	" "
	32	" "
7-27-48	33	Quadriplegia
	34	"
	35	"
	36	"
7-26-48	38	Quadriplegia, weak voice
8-5-48	45	No change
8-11-48	54	<u>FOUND DEAD</u>

AUTOPSY:

TISSUE FOR SECTION Several segments of lumbar & cervical cord  
 Single sections of thoracic medulla {thalamus and midbrain} (Z.A.)  
 discarded 9/17/48.

11-19-48 tissues discarded

# Homologous Neutralization Test

RH 620

Convalescent Serum [10-2]

JUN 18 1948 DATE DAY REMARKS

0	✓
1	✓
2	✓
3	✓
4	✓
5	✓
6	✓
7	diarrhea - clumpy
8	Same
9	Diarrhea; no weakness.
10	"
11	Thin; diarrhea
12	"
13	Thin
14	Same
15	Thin - General Weakness
16	Same
7-5-48 17	<u>DEAD:</u> Autopsy: prolapse of rectum; hemorrhagic material in colon; lungs grossly o.k.

TISSUE FOR SECTION: Thalamus; ~~hypothalamus~~ midbrain; medulla; cervical, thoracic & lumbar cord. (Z-A).

HISTOLOGY: N.B. There has been a disappearance of a number of spinal cord segments since the slides from [redacted] have only 2 soft and washed sections! - There is one section of medulla; one midbrain at inferior collicular level; and one of Thalamus. Examination of these available sections shows no pathology.

DIAGNOSIS: - NO POLIO

# Homologous Neutralization Test

Rh 621

Convalescent Serum  $10^{-2}$

JUN 18 1948

DATE	DAY	REMARKS
	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 mild diarrhea - General weakness,  
 26 " " " "  
 27 Same  
 28 "  
 29 ✓ "  
 30 ✓ "  
 31 ✓ "  
 32 ✓ "  
 33 ✓ "  
 34 ✓ "

7-23-48. 35 ✓ Sacrificed (chloroform-exsanguination) - Autopsy - no gross TB.

TISSUE FOR HISTOLOGY: lumbar; Thoracic; cerebral cord segments; medulla; midbrain; Thalamus. (Z-A) [latter two discarded 9/17/48].

HISTOLOGY: Above segments reveal no neuronal or root changes

DIAGNOSIS: NO POLIO

# Homologous Neutralization Test

Rh 622

Convalescent Serum [10-3]

JUN 18 1948

DATE DAY REMARKS

DATE	DAY	REMARKS
	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	Diarrhea
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	mild diarrhea
	28	✓
	29	✓
	30	✓
	31	✓
	32	✓ mild diarrhea
	33	✓ " "
	34	✓ " "
7-23-48	35	✓ " "

Sacrificed (chloroform - extanguination) - Autopsy -

no gross lcs.  
 TISSUE FOR HISTOLOGY: 2 lumbar; 1 thoracic; 2 cervical (poor) cord segments; 1 medulla; midbrain; Thalamus. (latter two discarded 9/17/48)

HISTOLOGY: Above segments reveal no pathological changes of polio.

DIAGNOSIS: NO POLIO.

# Homologous Neutralization Test

Rh 623

Convalescent serum [10-3]

DATE	DAY	REMARKS
JUN 18 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
7-2-48	14	Weak back and itty rupper; disinclined to climb
	15	easily exhausted
	16	" "
	17	" "
	18	" "
	19	" " diarrhea
	20	" "
	21	diarrhea
	22	" "
	23	" "
	24	" "
	25	" "
	26	" "
	27	mild diarrhea
	28	" "
	29	" "
	30	" "
	31	" "
	32	" "
	33	✓ "
	34	✓ "
7-23-48	35	✓ mild diarrhea. Sacrificed (chloroform-exsanguination). Autopsy → no gross TB.

TISSUE FOR HISTOLOGY: lumbar; Thoracic; cervical cord segments.  
medulla; midbrain; Thalamus. (2-A) - midbrain & Thal. discarded 9/17/48.

HISTOLOGY: No neuronal or root pathology.

DIAGNOSIS: NO POLIO

# Homologous Neutralization Test

Rh 624

Convalescent Serum [10-3]

DATE	DAY	REMARKS
JUN 18 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
6-29-48	11	Weakness of both lowers and left upper.
6-30-48	12	Compl. paralysis of left upper. Part par. right upper and both lowers. 6-30. Bled for serum.
7-1-48	13	Quadruplegia - aphonia
7-2-48	14	FOUND DEAD

AUTOPSY: No gross the  
TISSUE FOR SECTION: Single segments of cervical and  
lumbar cord, and medulla

HISTOLOGY: Spinal cord reveals show acute neuronophagia and  
mild PV cuffing; medulla shows acute neuronophagia in floor of  
fourth ventricle and reticular formation, with med. PV cuffing.

DIAGNOSIS: POLIO (acute)

# Homologous Neutralization Test

Rh 625

Convalescent serum

10-4

DATE	DAY	REMARKS
JUN 18 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
6-25-48	7	* excited
	8	"
	9	? Excited; Pilomotor t.
	10	Same
	11	No change
	12	? excited
	13	excited
	14	? excited
	15	✓
	16	✓
	17	✓
	18	✓
	19	? excited
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓
	31	✓
	32	✓
	33	✓
	34	✓
	35	✓

7-26-48 38 SACRIFICED (chloroform-exasanguination)  
AUTOPSY: No gross l.c.  
TISSUE FOR SECTION: single segments of lumbar thoracic  
 and cervical cord; medulla thalamus & midbrain. (Z.A.)

HISTOLOGY: Reveals no neuronal or root changes in  
 above segments.

DIAGNOSIS: NO POLIO

## Homologous Neutralization Test

Rh 626

Convalescent Serum 10-4

JUN 18 1948

DATE	DAY	REMARKS
	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
6-26-48	8	Both lowers early exhausted; bilateral ptosis.
	9	Same.
	10	No change
	11	Same
	12	Still mild bil. ptosis; disinclined to climb but has no weakness.
	13	No change
	14	" "
	15	mild bil. ptosis
	16	" " "
	17	OK today.
	18	Same
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓
	31	✓
	32	✓
	33	✓
	34	✓
	35	✓
7-26-48	38	SACRIFICED (chloroform-exsanguination) Autopsy: No gross the TISSUE FOR SECTION: single segments of lumbar thoracic and cervical cord; medulla thalamus & midbrain (Z.A.)
		11-26-48 No trace of tissue blocks.

# Homologous Neutralization Test

Rh 627

Convalescent Serum [10<sup>-4</sup>]

DATE	DAY	REMARKS
JUN 18 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	✓
	33	✓
7-26-48	34	✓
	35	✓

SACRIFICED (chloroform-exsanguination)

AUTOPSY: No gross obs.

TISSUE FOR SECTION ~~fish~~ segments of lumbar (2)

(1) thoracic; (2) cervical cord, medulla thalamus and midbrain (Z.A.) (latter two discarded 9/17/48)

HISTOLOGY:

Above segments free of pathology.

DIAGNOSIS: NO POLIO

HOMOLOGOUS NEUTRALIZATION TEST - SERUM-DILUTION METHOD

**SEP 27 1948** VIRUS USED: Generation II of [redacted] strain polio virus in Rhesus. The same pool used for the initial titration ( ) and for the neutralization test ( ) with undiluted sera. - The cumulative titer from these 2 previous tests is  $10^{-3.4}$ , so that the fixed dose of virus i.e. 50 PD<sub>50</sub> selected for the test below is achieved by using a final virus concentration of 1:50, inoculum being 0.5 cc.

SERA USED: Two sera from [redacted] - ACUTE: (8/16/47) - 3 days after onset  
CONVALESCENT: (11/13/47) - 90 days "

3.5

INCUBATION: Serum-virus and control mixtures as indicated below at room temp. (72°F) for one hour; then into refrigerator overnight for ±15 hours. Then into ice-bath during inoculations on 9-28-48.

MONKEYS: Normal rhesus monkeys; those monkeys whose numbers are suffixed by the letter X were used previously (intracerebral) and appeared to be normal.

INOCULUM: - 0.5 cc per monkey.

FINAL CONCENTRATION OF VIRUS = 1:50

SERUM	UNDILUTED.	1:4	1:16	1:64
ACUTE (8/16/47) 3 days after onset	Rh. 924 O, K <sub>30</sub> ○	Rh. 928 P10	Rh. 932 P14	Rh. 936 P14
	925 P8	929 O, K <sub>30</sub> ○	933 P11	937 D6 +
	926 O, K <sub>30</sub> ○	930 P9	934 P8	938 P14
	927 O, K <sub>30</sub> ○	931 P21	935 P13	939 O, K <sub>30</sub> ○
CONVALESCENT (11/13/47) 90 days after onset.	Rh. 940 O, K <sub>31</sub> ○	Rh. 944 O, X <sub>31</sub>	Rh. 948 P16	Rh. 952 P8
	941 O, K <sub>31</sub> ○	945 O, X <sub>31</sub>	949 P8	953 O, K <sub>30</sub> ○
	942 O, X <sub>31</sub>	946 O, X <sub>31</sub>	950 O, K <sub>30</sub> ○	954 P11
	943 O, X <sub>31</sub>	947 O, X <sub>31</sub>	951 P12	955 P6
SALINE CONTROL	1:50	1:100	10-3	10-4.
	Rh. 920 P5	Rh. 607X P7	Rh. 775X P9	Rh. 772X P7
	921 P7	608X P5	786X P6	774X P7
	922 P8	790X O, K <sub>30</sub> ○	780X P8	707XX P6
	923 D3 ○			

Homologous Neutralization Test

Serum Dilution Method

Rh. 920

Saline  
Control

1:50 viral

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
10-2-48	4	Weakness of both lowers.
	5	Quadriplegia; aphonia.
10-4-48	6	DEAD - Discarded.

## Homologous Neutralization Test

## Serum Dilution Method

Rh. 921 -Saline  
control 1:50 Virus

Date	Day	Remarks
Sept. 28, 1948	0	✓ mild scalp edema,
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	Partial Paralysis of both lowers and left upper; Weakness of rt. upper. <u>SACRIFICED</u> (chloroform - exsanguination) <u>AUTOPSY:</u> No gross tbc <u>TISSUE FOR VIRUS</u> - Cord & medulla frozen in a lusterbnd. d 9 <u>Culture:</u> ✓✓✓
	10-18-48	Cord and medulla of Rh 921 thawed. Weight = 5.5 gms Made up as a 20% susp in (22 cc) sterile saline. ± 19 cc frozen in 2-20 cc vials. Amps. #1 and #2 stored B-7-4 <u>Culture:</u> ✓✓✓

Homologous Neutralization Test

Serum Dilution Method

Rh. 922 -

Saline  
control      1:50 Virus

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	Excited
	7	"
10-6-48	8	Compl. Par. of left lower. Partial Par. of other extremities, Weak back. <u>Sacrificed - Discarded</u>

## Homologous Neutralization Test

## Serum Dilution Method

Rh. 923-

Saline  
Control 1:50 Virus

Date	Day	Remarks
Sept. 28, 1948	0	Small animal but no diarrhea, seems OK.
	1	✓
	2	✓
	3.	Alert but prostrate. no diarrhea; can hold head up. T = 94°. died at 12 <sup>00</sup> noon. immediate autopsy: No gross TB; viscera appear grossly normal.

TISSUES FOR SECTION: - Thalamus; midbrain; 2 medulla;  
4 cervical; 2 thoracic; 3 lumbar. (2-A).

HISTOLOGY: These sections do not show any early pathology.

DIAGNOSIS: NO EVIDENCE FOR POLIO

## Homologous Neutralization Test

## Serum Dilution Method

Rh. 607X

Saline  
control

1:100 virus

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	Excited; pilomotor t.
	6	" "
10-5-48	7	Partial Paralysis of all 4 extremities
	8	Almost complete paralysis of all extremities. <u>Sacrificed</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Rh. 608X

Saline  
control 1:100 virus.

Date	Day	Remarks
Sept. 28, 1948	0	✓ Small; thin; no diarrhea.
	1	✓
	2	✓ thin, edema of scalp and left eye
	3	✓ Edema as above but more progressive.
	4	✓ Edema is getting better
	5	✓ Quadriplegia; aphonia.
	6	✓ DEAD - discarded.

Homologous Neutralization Test

Serum Dilution Method

Rh. 790X

Saline control 1:100 virus

Date	Day	Remarks
Sept. 28, 1948	0.	✓ Very mild diarrhea.
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓ mild diarrhea
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
10-28-48	30	SACRIFICED (chloroform- <u>extirpation</u> )

AUTOPSY:

TISSUE FOR SECTION 2 Medulla 7 cervical 2 thoracic 4 lumbar cord (2A)

HISTOLOGY: Above level show no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Serum Dilution Method

Rh. 775X

Saline  
control

$10^{-3}$  virus.

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
10-7-48	8	✓
	9	Partial Paralysis of left upper; weakness of other three extremities
	10	Compl. Par. both uppers. Part Par. both lowers. <u>Sacrificed</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Rh. 786X

Saline  
control

$10^{-3}$  virus.

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	Mild tremors
	5	Tremors; awkward with towers.
	6	Compl. par. rt. upper; part. par. both towers + left upper; partial left facial.
	7	Quadriplegia - aphonia
	8	Quadriplegia. aphonia. Complete bilateral facial paralysis.
		<u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Rh-780X

Saline control  $10^{-3}$  virus.

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
10-6-48	8	Partial Paralysis of both lower and it. upper <u>Sacrificed</u> . Discarded

Homologous Neutralisation Test

Serum Dilution Method

Rh. 772X

Saline  
control

$10^{-4}$  virus.

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
10-5-48	6	✓
	7	Partial Paralysis of pt. lower
	8	Partial Paralysis of all extremities <u>Sacrificed</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Rh. 774X

Saline  $10^{-4}$   
control virus.

Date	Day	Remarks
Sept. 26, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	Partial Paralysis of right upper; Weakness of other three extremities
	8	<u>FOUND DEAD</u> Discarded

Homologous Neutralisation Test

Serum Dilution Method

Ph. 707XX -

Solvent  
control  $10^{-4}$  virus

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓ thin; no diarrhea
	5	✓ "
	6	Partial Paralysis of all 4 extremities
	7	Compl. Par. of both lowers and left upper. Part. Par. of right upper. Weak voice
	8	Quadriplegia; aphonia. <u>Sacrificed</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Rh. 924

Acute - undiluted  
Serum

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓ edema of face
	21	✓ " " "
	22	✓ " " "
	23	✓ " " "
	24	✓ " " "
	25	✓ " " "
	26	✓ edema less marked.
	27	✓ thin - mild diarrhea
	28	✓ " " "
	29	✓ " " "
10-28-48	30	<u>SACRIFICED</u> (choliform-exasperation) <u>AUTOPSY:</u> No gross the <u>TISSUE FOR SECTION</u> 2 Medulla 5 cervical 2 thoracic and 5 lumbar cord (2A)

HISTOLOGY: Above levels reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Serum Dilution Method

Rh. 925-

Acute Serum - undiluted.

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	weakness both loweris.
7	Both loweris are unbound.	
10-6-48	8	Partial Paralysis of both loweris. <u>Sacrificed - Discarded</u>

Homologous Neutralization Test

Serum Dilution Method

Rh. 926

Acute Serum - undiluted

Date	Day	Remarks
Sept. 28, 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	✓	

10-28-48

30 SACRIFICED (chloroform-exsanguination)  
AUTOPSY: no gross the  
TISSUE FOR SECTION 2 Medulla 5 cervical 3 thoracic  
 and 4 lumbar cord (2A.)

HISTOLOGY: Above levels reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Serum Dilution Method

Rh. 927.

Acute - unclotted Serum

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	Electromotor Response - excited
	12	Same.
	13	" "
	14	" "
	15	" "
	16	" "
	17	" "
	18	" "
	19	" "
	20	" "
	21	Same Condition
	22	" "
	23	" "
	24	" "
	25	" "
	26	Excited; palomotor +.
	27	" "
	28	" "
	29	" "

10-28-48

30 SACRIFICED (chloroform-exsanguination)  
AUTOPSY: No gross the  
TISSUE FOR SECTION 2 Medulla 6 cervical 2 thoracic and 3 lumbar  
 cord; (Z.N.)

HISTOLOGY: Above levels reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Serum Dilution Method

Rh. 928

Acute Serum 1:4

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
10-7-48	8	✓
	9	Pilomotor response. Disinclined to climb, slurring
	10	Complete Paralysis of rt. lower; Part Par. other three extremities. <u>Sacrificed Discarded</u>

10-7-48

Day

Remarks

0

✓

1

✓

2

✓

3

✓

4

✓

5

✓

6

✓

7

✓

8

✓

9

Pilomotor response. Disinclined to climb, slurring

10

Complete Paralysis of rt. lower; Part Par. other three extremities.

Sacrificed Discarded

Homologous Neutralization Test

Serum Dilution Method

Rh. 929 -

Acute Serum 1:4

Date	Day	Remarks
Sept. 28, 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	✓

10-28-48

30 SACRIFICED (chloroform-exsanguination)  
AUTOPSY: No gross the  
TISSUE FOR SECTION 2 Medulla 5 cervical 2 thoracic and  
 7 lumbar cord (z.a.)

HISTOLOGY: Above levels reveal no histopathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Serum Dilution Method

Rh. 930

Acute  
Serum 1:4

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
10-7-48	8	✓
	9	Complete Paralysis of both uppers, Partial Paralysis of both lowers.
	10	<u>DEAD</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Rh. 931-

Acute Serum 1:4

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	Pilomotor response; easily exhausted
	14	"
	15	Seems O.K. today
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
10-17-48	21	Complete Paralysis of both uppers; partial Paralysis of both lowers.
	22	Almost Complete Quadriplegia <u>Sacrificed</u> <u>Discarded</u>

Homologous Neutralization Test

Serum Dilution Method

Ph. 932-

Acute  
Serum 1:16

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
<u>10-12-48</u>	13	✓
	14	Partial Paralysis both lowers. - Sacrificed - Discarded.

Homologous Neutralization Test

Serum Dilution Method

Dh. 953-

Acute Serum 1:16

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
10-9-48	11	Complete Paralysis of both uppers; Partial Par. both lowers. <u>Sacrificed</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Rh. 934-

Acute  
Serum 1:16

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
8	{ Compl. par. both lowers; p.p. both uppers. 2 Sacrificed - Discarded.	

Homologous Neutralization Test

Serum Dilution Method

Ph. 935-

Acute Serum 1:16

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
12	✓	

10-11-48

13 Partial Paralysis of all extremities  
SACRIFICED Discarded

## Homologous Neutralization Test

## Serum Dilution Method

Rh. 936-Acute  
Serum 1:64

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓ Thin; mod. diarrhea.
	5	✓ " " "
	6	✓ " " "
	7	✓ " " "
	8	✓ then no diarrhea
	9	✓ "
	10	✓ "
	11	✓
	12	✓
	13	✓ "
<u>10-12-48</u>	<u>14</u>	Complete par. rt. Lower; partial paralysis of other three extremities. - Sacrificed - Discarded.

## Homologous Neutralization Test

## Serum Dilution Method

Ph. 937-

Acute  
Serum 1:64

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	Inclined to clumb; ? excited.
	6	DEAD: Autopsy: no gross TBe.

Tissues: 2 medulla; 3 lumbar; 1 Thoracic; 5 cervical. (2A)

HISTOLOGY: All levels show moderately extensive acute  
neurophagia; in addition medulla shows light PV  
cuffing.DIAGNOSIS: POLIO ("Acute")

Homologous Neutralization Test

Serum Dilution Method

Rh. 938-

Acute Serum 1:64

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓

10-12-48

13  
14

Complete paralysis of left lower; partial paralysis of other 3 extremities; weak neck; back; voice. - Sacrificed - Discarded.

Homologous Neutralization Test

Serum Dilution Method

Ph. 939-

Acute Serum 1:64

Date	Day	Remarks
Sept. 28, 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	✓

10-28-48

30

SACRIFICED (chloroform-exsanguination)

AUTOPSY: The gross the:

TISSUE FOR SECTION 2 Medulla 5 cervical, thoracic and 3 lumbar cord (2-A)

HISTOLOGY:

All levels show no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Serum Dilution Method

Rh. 940

Convalescent  
Serum - undiluted

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓ mild diarrhea.
	7	✓ " "
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓ then - mild diarrhea
	26	✓ " " "
	27	✓ " " "
	28	✓ " " "
	29	✓ " " "
	30	✓
10-29-48	31	<u>SACRIFICED</u> (chloroform - exsanguination) <u>AUTOPSY:</u> No gross the <u>TISSUE FOR SECTION</u> 2 Medulla 5 cervical 2 thoracic and 3 lumbar cord (Z.A.)

HISTOLOGY: Above levels reveal no pathology.

DIAGNOSIS: NO POLIO.

Homologous Neutralization Test

Serum Dilution Method

Rh. 941-

Convalescent Serum - undiluted

Date	Day	Remarks
Sept. 28, 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	Thun
	28	"
	29	"
	30	"

10-29-48

31 SACRIFICED (Chromiform-erythraemia)  
AUTOPSY: No gross the  
TISSUE FOR SECTION 2 Medulla, 4 cervical 2 thoracic and  
 2 lumbar cord (2.A.)  
HISTOLOGY: Above segments reveal no pathology.  
DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Serum Dilution Method

Rh. 942-

Convalescent  
Serum - undiluted

Date	Day	Remarks
Sept. 28, 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	✓
10-29-48	31	✓

Observation Terminated - Monkey tag number changed to 942X - so that monkey may be used again

11-12-48 RK 942X used for Nervous Tissue antibodies Experiment

Homologous Neutralization Test

Serum Dilution Method

Ph. 943

Convalescent  
Serum - undiluted.

Date	Day	Remarks
Sept. 20, 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	✓

10-29-48

Observation Terminated - Monkey tag number changed to 943X so that monkey maybe used again.

12-6-48, Used as control monkey to receive MV virus IC, in heterologous challenge of convalescent monkeys.

Homologous Neutralization Test

Serum Dilution Method

Rh. 944

Convalescent  
Serum 1:4

Date	Day	Remarks
Sept. 28, 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	✓
10-29-48	31	✓

Observation Terminated - Monkey tag number changed to 944X so that monkey may be used again.

11-12-48 Rh 944X used for Nervous Tissue antibodies experiment

Homologous Neutralization Test

Serum Dilution Method

Ph. 945

Cowlescut  
Serum 1:4

Date	Day	Remarks
Sept. 28, 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	✓	
10-29-48	31	✓

Observation Terminated - Monkey tag number changed to 945x; so that monkey may be used again.

11-12-48 Ph 945x used for Nervous Tissue Experiment

Homologous Neutralization Test

Serum Dilution Method

Rh. 946

Convalescent Serum 1:4

Date	Day	Remarks
Sept. 28, 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	✓	
10-29-48	31	✓

Observation Terminated - Monkey Tag # changed to 946X - so that monkey may be used again.

11-12-48 Rh 946X used for Nervous Tissue antibodies Experiment

Homologous Neutralization Test

Serum Dilution Method

Rh. 947-

Convalescent Serum 1:4

Date	Day	Remarks
Sept. 28, 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	✓
10-29-48	31	✓

Observation Terminated Monkey Jay number changed to 9474 so that monkey may be used again

11-12-48 Rh 9474 used for Nervous Tissue Antibody Expt.

Homologous Neutralization Test

Serum Dilution Method

Rh. 948

Convalescent Serum 1:16

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	Clumsy - awkward
10-14-48	16	Complete Paralysis of both uppers, Partial Paralysis of both lowers;
	17	Quadriplegia <u>SACRIFICED</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Ph. 949-

Convalescent Serum 1:16

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
10-6-48	7	✓
	8	Complete Paralysis of both uppers, Part. Par. both lowers, Weakness of voice, neck and back. <u>Sacrificed</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Rh. 950

Convalescent  
Serum 1:16

Date	Day	Remarks
Sept. 28, 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	✓	

10-28-48 30 SACRIFICED (chloroform-exsanguination)  
Autopsy: No gross the  
TISSUE FOR SECTION 2 Medulla, thoracic & cervical  
 and lumbar cord (Z.A.)

HISTOLOGY: Above segments reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralisation Test

Serum Dilution Method

Rh. 951-

Convalescent  
serum 1:16.

Date	Day	Remarks
Sept. 21, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
	11	✓
	12	Partial paralysis of all 4 extremities.
	13	Quadriplegia - aphonia <u>Sacrificed</u> ; Discarded

Homologous Neutralization Test

Serum Dilution Method

Rh. 952-

Convalescent  
Serum 1:64

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
10-6-48	8	Partial Paralysis of both uppers. Weakness of both lowers. <u>Sacrificed</u> Discarded

Homologous Neutralisation Test

Serum Dilution Method

Rh. 953

Convalescent Serum 1:64

Date	Day	Remarks
Sept. 28, 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	✓	

10-28-48

30 SACRIFICED (chloroform-exsanguination)  
AUTOPSY: To gross the  
TISSUE FOR SECTION 2 Medulla 5 cervical 2 thoracic and  
 lumbar cord (Z.A.)

HISTOLOGY: Above levels reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralisation Test

Serum Dilution Method

Rh. 954-

convalescent  
serum 1:64

Date	Day	Remarks
Sept. 28, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	✓
	8	✓
	9	✓
	10	✓
10-9-48	11	Partial Paralysis of all extremities <u>Sacrificed</u> Discarded

Homologous Neutralization Test

Serum Dilution Method

Rh. 955 -

Convalescent  
Serum

1:64

Sept. 28, 1948

Date Day Remarks

0 ✓

1 ✓

2 ✓

3 ✓

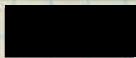
4 ✓

5 ✓

6 Compl. par. left upper; partial par. 3 extr.; weak neck back + voice.

7 Quadriplegia. Weak voice

8 FOUND DEAD Discarded



Homologous Neutralization Test

Serum Dilution Method

Date	Day	Remarks
Sept. 20, 1948		

POLIO - 1947. - MONKEY HISTOLOGY.

MK. #	Lumbar.		Thoracic.		Cervical		Medulla.		Midbrain.		Thalamus.		Hypothal.		Cef. Bulbs.		DISEASES.
	NH; PH.	NH; PT.	NH; PT.	NH; PT.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	
Rh. 14	NH; PH.	NH; PT.	NH; PT.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	<u>POLIO</u>
Rh. 1388	NH; PH.	NH; PT.	NH; PT.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	<u>POLIO</u>
Rh. 25	NH; PH.	NH; PT.	NH; PT.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	<u>POLIO</u>
Rh. 26.	NH; PH.	NH; PT.	NH; PT.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	NH; PH.	<u>POLIO</u>
<u>TITRATION OF GEN. II VIRUS.</u>																	
$10^2$ Rh. 410	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<u>No polio.</u>
Rh. 399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<u>No polio.</u>
Rh. 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<u>No polio.</u>
$10^3$ 401	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<u>No polio.</u>
402	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<u>No polio.</u>
403	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<u>No polio.</u>
$10^4$ 317	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<u>No polio.</u>
405	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<u>No polio.</u>
406	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<u>No polio.</u>
$10^5$ 407	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<u>No polio.</u>
408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<u>No polio.</u>
409	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<u>No polio.</u>

M.K. #

Ambar

Torani

Carval.

Medula.

Milbram

Dalans

DIAGNOSIS

HOMOLOGOUS NEUTRALIZATION TEST (of 6/17/48)

SALINE  
10<sup>-2</sup> Rh. 639

10<sup>-3</sup> Rh. 1926

Rh. 646

641

10<sup>-4</sup> 642

643

644

645

ACUTE  
SERUM Rh. 1931

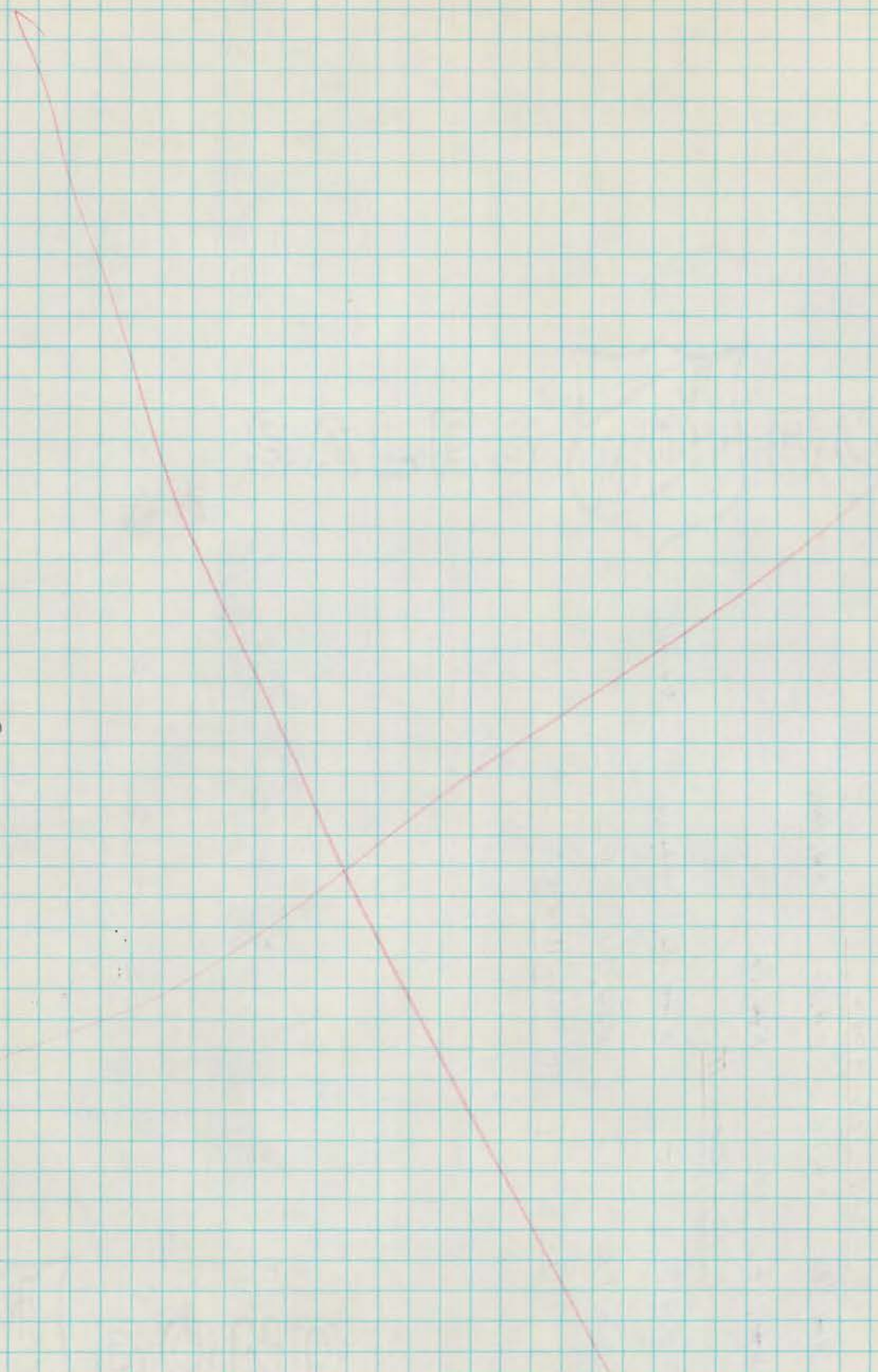
10<sup>-1</sup> 628

629

10<sup>-2</sup> 630

631

622



(con't'd)  
↓