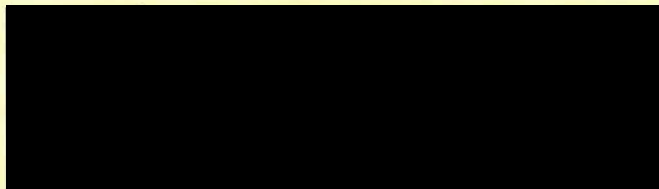


Polo - 1947 -



Cincinnati.



Age - 8 months

White

ONSET : Night of 8/9/47 - irritability and fever first noticed

8/11/47 - admitted to ~~ex~~ hospital exhibiting fever, nuchal and spinal rigidity and complete left facial paralysis

CSF - 56 cells - 40% polys
60% L

Pandy +

8/12 - Blood, Throat swabs I, and saline enema I -

8/13 - Throat swabs II; saline enema II

Still febrile - facial ~~sw~~ nuchal + sp. rigidity same

8/14 - Throat swabs III; saline enema III

Temp. down - physical same except
paralysis of left half of tongue
also evident

8/16 - Remains afebrile; nuchal rigidity + facial paralysis same.

8-23 - Only facial paralysis remains - Blood specimen II.

Family phone: Sycamore 6262

NOV 5 1947

Human Polio Material For Monkey Inoculation

A. STOOLS-

11/5/47. Estimated Solids - 40 gms. - } Blended for 2 minutes at high speed (Waring)
Liquid present $\pm 150-200$ c.c. } resulting in a thick mush.

Distilled water added ± 300 c.c. and re-blended at high speed for two minutes, - yielding very thick material seemingly full of air.

For centrifugation - removed 270 c.c.

For Re-Freezing - removed 200 c.c. (Box "C")

Discarded - 50.0 c.c.

First Supernatant = 140 c.c. - 20% ether added, (28 c.c. ether added ABS)

Untreated Sediment = 34.0 c.c. for intranasal inoculation.

11/6/47. Final Amount Treated Stool = ± 15 c.c. -

Cult. (prior to final centrifugation): $\times \pm 12$ colonies - Gram neg + a few sm + rods.

Culture - (after centrifugation): $\times \pm 20$ colonies (smear)

11/7/47. Re-Etherization of Suspension - 22.0 c.c. ether added.

11/8/47. - Centrifuged. - Yield $\pm 110-115$ c.c.

Culture: $\times 3$ colonies - sm. neg. rods. (48 hrs. reading.)

NOV 5 1947

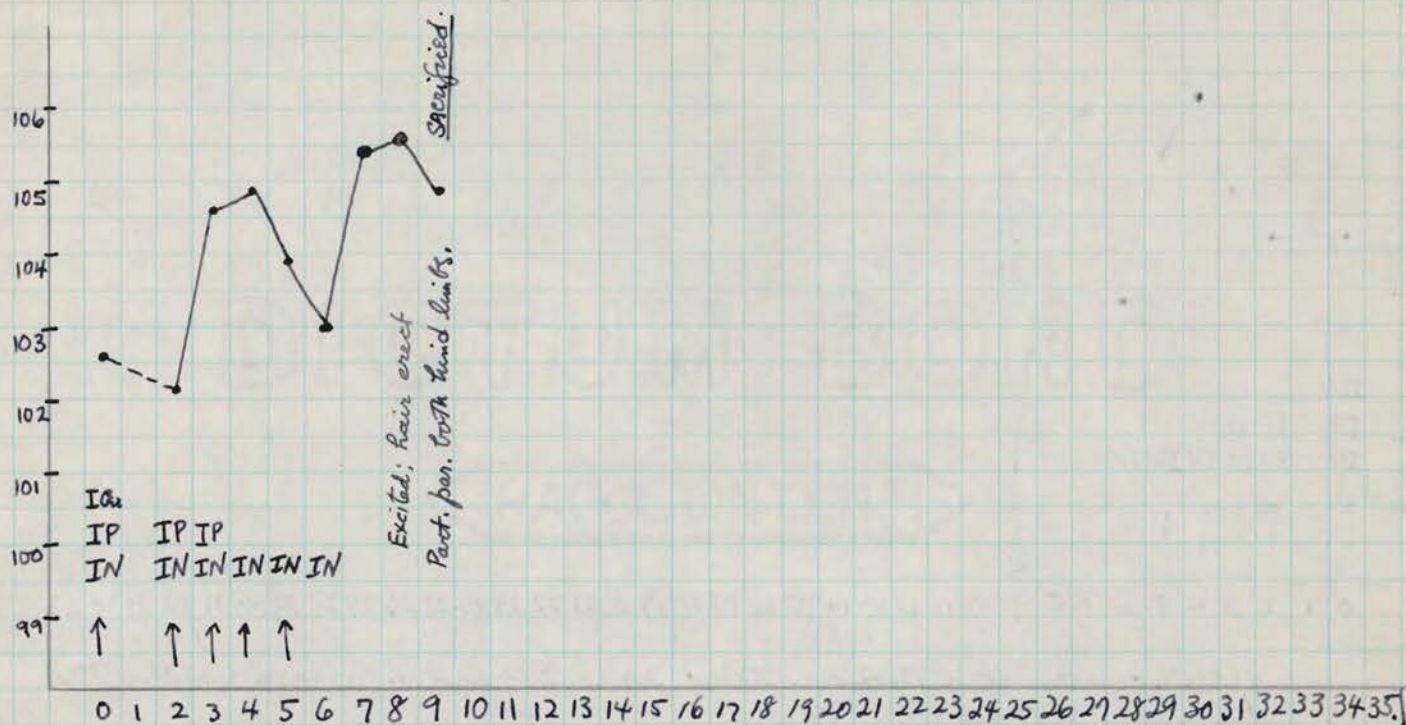
B. Pharyngeal Swab Material -

Final Amount = 1.6 c.c.
Culture :- ✓✓✓

NOV 8 1947

Treated Pharyngeal Swabs - Icer. ✓✓✓✓
Treated Stools ——— IP × 3 colonies
Untreated Stool ——— IN 8 colonies
Cult. 8 colonies
8 colonies
8 colonies
8 colonies

Rhesus #2-



11/8/47. Inoculated 0.8 c.c. Icer; 20cc. IP; and 1 c.c. IN each nostril.

11/11/47. - The IP injection was 15.0 c.c.

11/17/47. - Partial paralysis both hind limbs. - Sacrificed with chloroform.

COLON CONTENTS - Pooled to those of Rh. #1341 - Frozen in Lusteroid (Storage box #2)

HISTOPATHOLOGY - Portions of cord levels and medulla. (ZA)

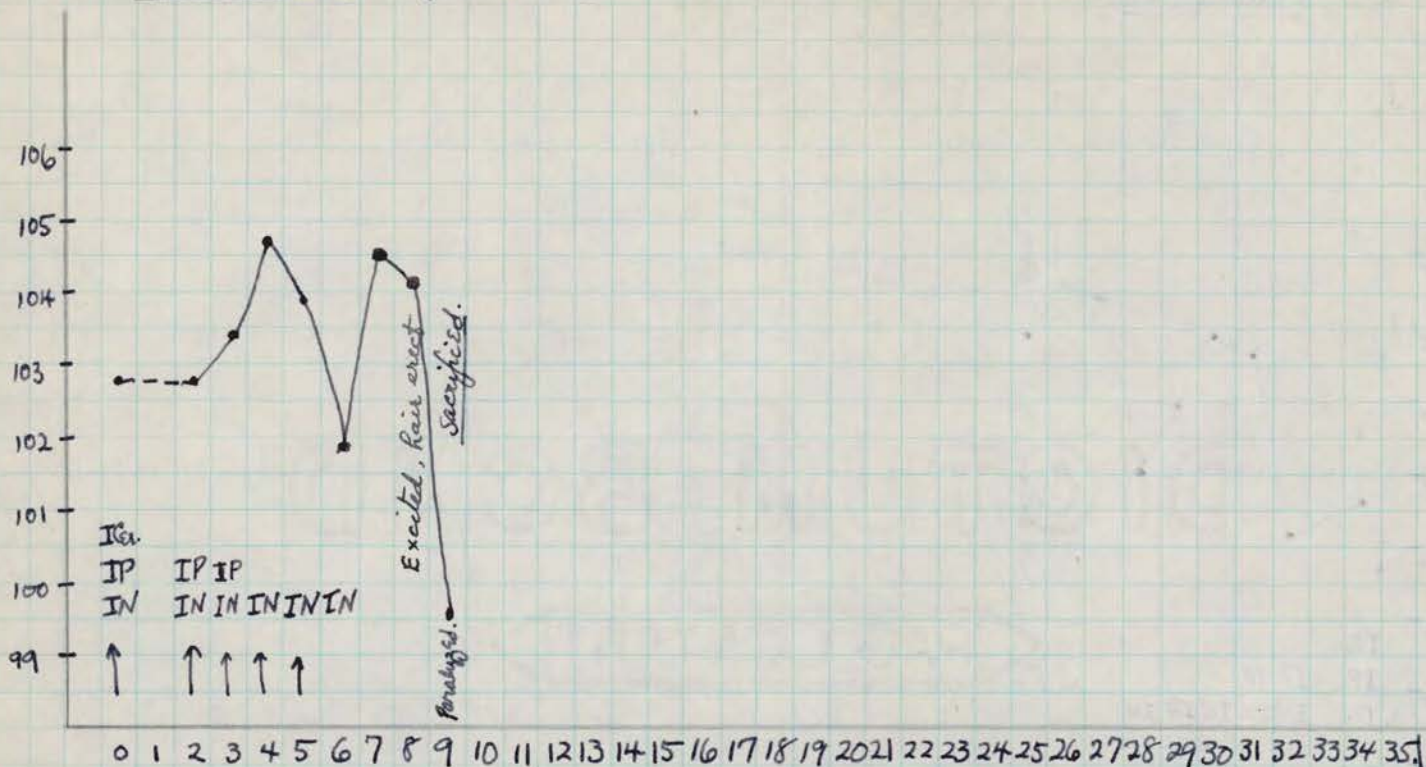
TISSUE FOR VIRUS - Levels of cord and medulla - 2.5 gms. pooled with same of Rh. #1341 (over) making total 7.0 gms. - 20% susp. in saline, first for 2 minutes in Waring Blender - high speed but without homogenization. -- Suspension made with sand in mortar, lightly centrifuged (5 minutes); supernatant cultured; inoculated into Rh #23 and Rh. #24, and ± 25 c.c. of the 20% susp. frozen in 2 glass rubber capped vials (B-1-7) Culture: ✓✓✓
No gross evidence of tbc.

Dec. 5 - Histology - Polio

NOV 8 1947

Rhesus #1341 - splenectomized

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



11/8/47. - Inoculated 0.4 c.c. Icer; 20 c.c. IP; and 1 c.c. each nostril IN.

11/11/47. - The IP injection was 15.0 c.c.

11/17/47. - Almost complete par. lower limbs; partial in uppers; cranial nerves intact. Sacrificed with chloroform.

COLON CONTENTS: - pooled with Rh. #2 (see over)

HISTOPATHOLOGY: portions of cord levels; medulla and both olfactory bulbs for section. (2A)

TISSUE FOR VIRUS: pooled with Rh. #2 (see over) and used for first monkey passage of Froman strain.

No gross evidence of tuberculosis; "accessory spleen" (?) $\pm$ 3-4 mm. in diameter.

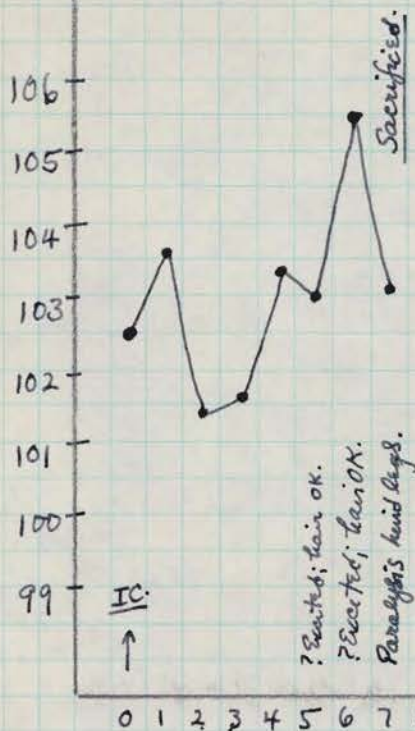
Dec 5 - Histology - Polio; olfactory bulbs positive

NOV 17 1947

POLIO - 1st Rhesus passage
GEN II

Rhesus #23

Inoculated IC with 1.0 cc. of 20% suspension (saline) of cords of Rh. #2 and #13 + 1 (pooled), used for primary isolation of virus from [redacted]



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 35.

11/24/47. - Sacrificed with chloroform; showed paralysis of hind limbs; back, upper extremities and cranial nerves seem O.K.

Autopsy: - No evidence of tuberculosis

HISTOPATHOLOGY: - portions of cord levels and medulla. (2A)

TISSUE FOR VIRUS: - spinal cord and medulla frozen in a tinsted tube. (C5)

12/6/47. Cord pooled with Rh. 24 cord (over) and frozen as a 20% susp. in saline (2 10 cc glass ampoules) (B-1-1) Cult: ✓✓
Tube broken in centrifuge.

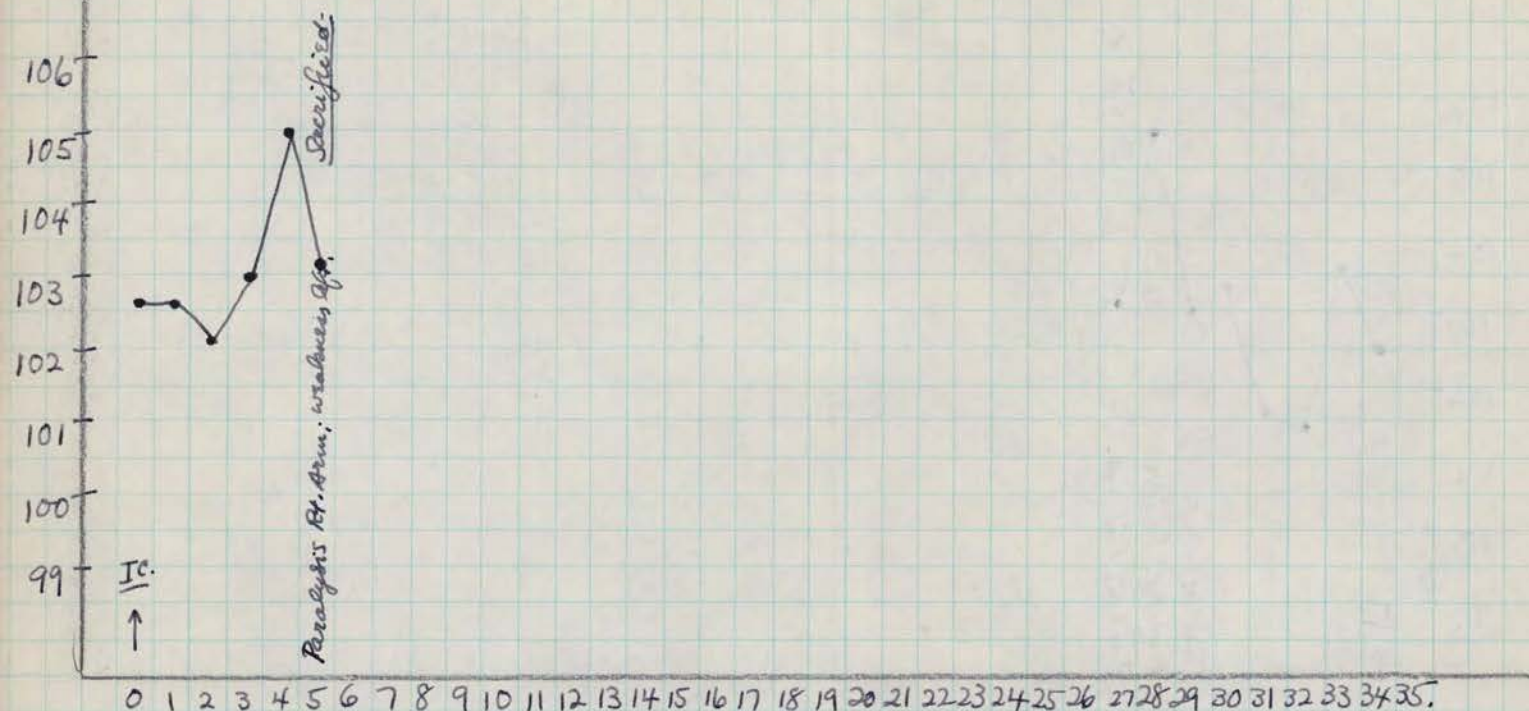
Histology - Polio

NOV 17 1947

POLIO - 1st Rhesus passage.
GEN II

Rhesus #24

Inoculated IC with 0.9 cc. of 20% suspension (saline) of cords of Rh #2 and #1341 (pooled) - used for primary isolation of virus from [redacted]



11/21/47. - Climbs well; no par. or weakness; hair OK; not excited; cranial nerves OK.
11/22/47. - Paralysis rt. arm; marked weakness left arm and of the back altho legs do not seem weak; no cranial nerve signs.

Sacrificed with chloroform - Autopsy: - No gross evidence of Tbc.

HISTOPATHOLOGY: Lumbar; Thoracic and cervical portions of the spinal cord; also medulla (2A)

TISSUE FOR VIRUS: Spinal cord levels and a portion of medulla frozen in Listeroid tube. (a-1)

12/6/47. - Pooled with Rh. #23. (see overlap).

Histology - Polio

TITRATION OF HUMAN POLIO STRAINS

3-16-48:

STRAIN (Gen. II)

Virus used: [redacted] strain polio (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 temp. (78°F) for one hour. Then into refrigerator overnight for 15 hours. Then into ice bath during inoculation on 3-17-48.

Inoculum: 0.5 cc intracerebrally per monkey.

10-3.3

<u>DILUTION</u>	<u>MONKEY #</u>	<u>CLINICAL FINDINGS (POLIO)</u>	<u>POLIO PATHOLOGY.</u>	<u>RESULT</u>
10 ⁻²	Rh 204	P10 K10	+	
	Rh 205	P8 K8.	+	
	Rh 206	P8 K8.	+	
10 ⁻³	Rh 207	P9 D20	+	
	Rh 208	P23 K24.	+	
	Rh 209	O K28	0	
10 ⁻⁴	Rh 210	O K28	0	
	Rh 211	O K24	0	
	Rh 216	D5	0	
10 ⁻⁵	Rh 217	D19	0	
	Rh 218	D8	0	
	Rh 219	O K28.	0	

MAR 17 1948

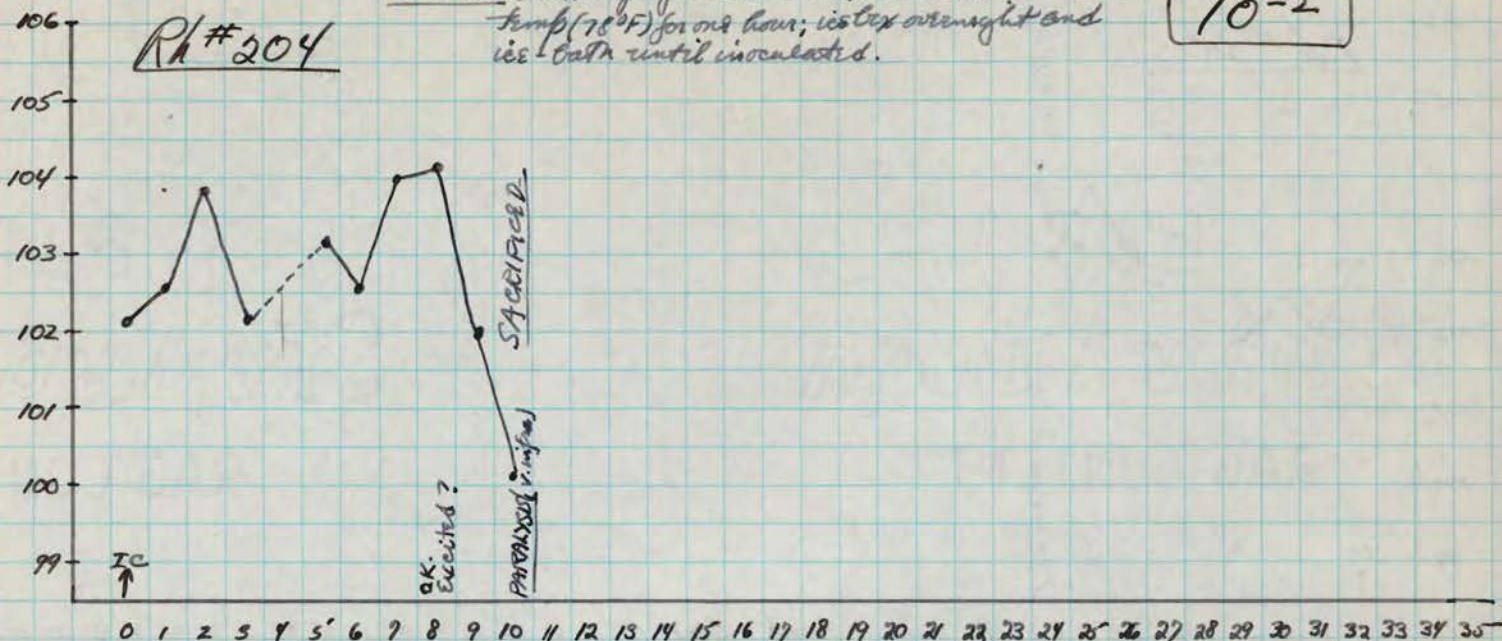
TITRATION OF

STRAIN POLIO (Gen. II)

3-16-48. Dilutions prepared in saline; inoculated at room temp (78°F) for one hour; rest overnight and ice bath until inoculated.

10⁻²

R#204



3-17-48: Inoc. IC with a ^{1:100} ~~20%~~ susp. in saline (0.5 cc inoc.) virus-gen II

3-25-48 - P.M. Temp = 105.2 - Excited; diarrhea.

3-26-48 - A.M. Coarse tremors; flops over easily but no definite paralysis as yet.
P.M. Same.

3-27-48 - Partial paralysis of both lowers; weakness of both uppers and back.

Sacrificed (chloroform-exanguination) - Autopsy: no TBC.

Tissue for ^{PATHOLOGY} ~~virus~~: cervical and lumbar cord.

Tissue for virus: remainder of spinal cord and medulla weighs 5.8 gms; made up as 20% susp. in saline with 24.0 cc, ± 2.1 cc. of supernatant placed into 2 20 cc ampoules; frozen. Location: B-4-6

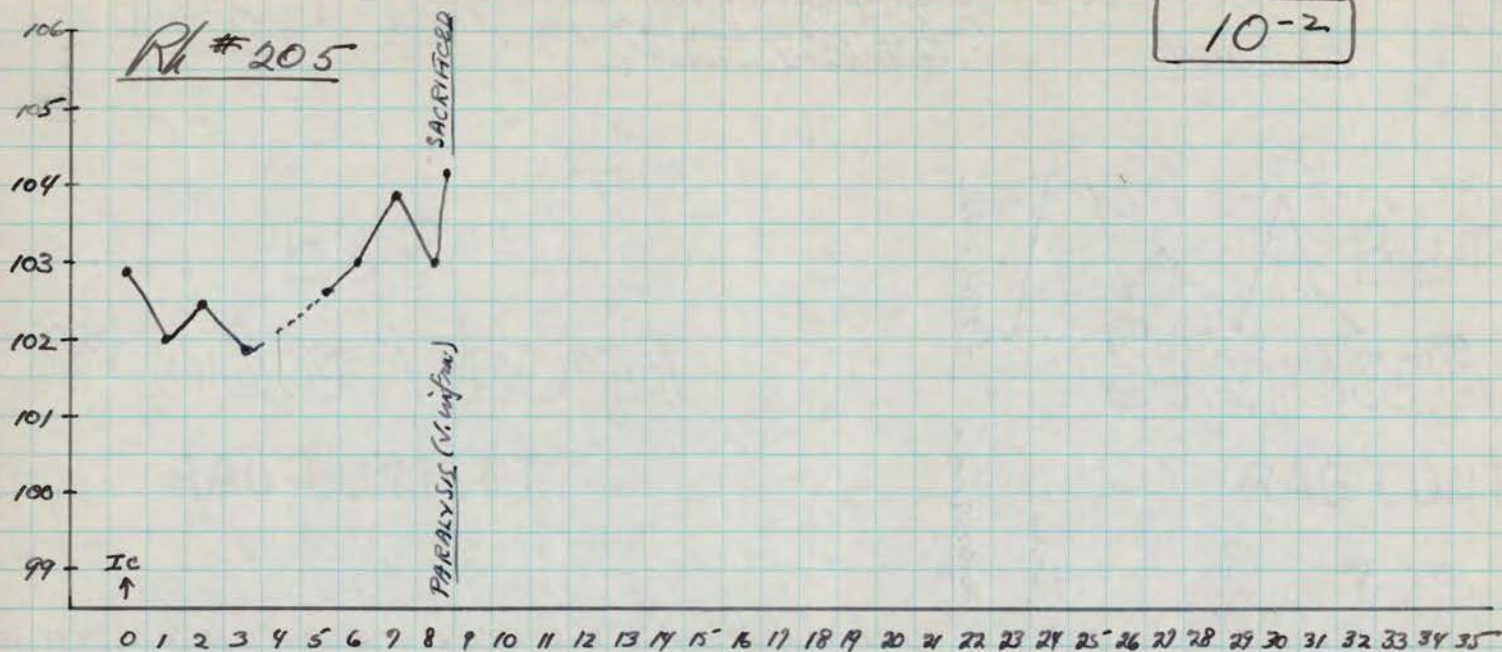
Cult: ✓

Histology - Polio

MAR 17 1948

TITRATION OF

STRAIN POLIO (Gen. II)



3-17-48: Inoc. IC with 0.5 cc of a ^{1:100} 20% susp. in saline. virus-gen II

3-25-48: A.M. Excited: T=103.

P.M. T=104.2 partial paralysis of both uppers and lowers

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

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

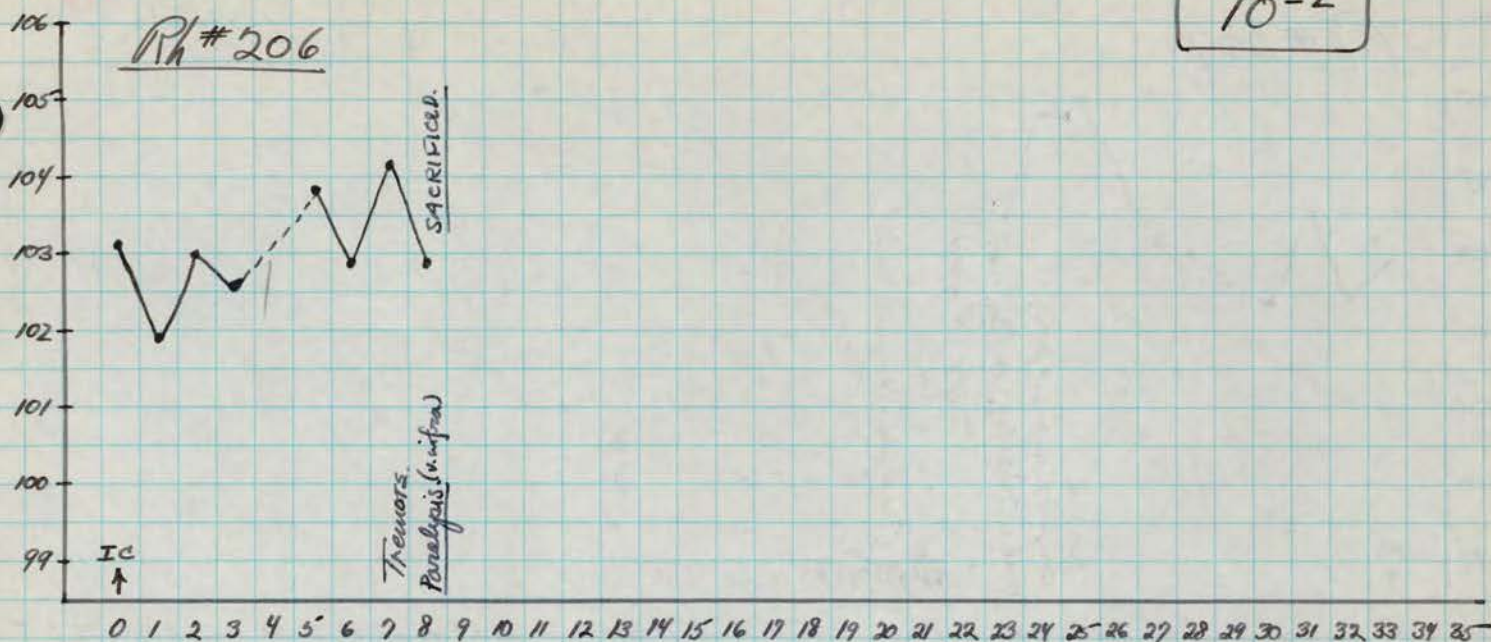
TISSUE FOR VIRUS: Remainder of cord and medulla pooled with that of Rh #206 to make a 20% susp. in (44 cc) sterile saline. Wt. of pooled cords-medullae = 11.5 gms. ± 38 cc. frozen in 4-20 cc amp. and stored. B-4-9

Culture: vv

MAR 17 1948

TITRATION OF

STRAIN POLIO (Gen. ii)

 10^{-2} 

3-17-48: Inoc. T.C. with 0.5 cc of a ^{1:100} ~~20%~~ susp. in saline - Gen. ii

3-25-48 - Partial paralysis of left upper and left lower; head drop; marked weakness of Rt. lower and of spine.

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

TISSUE FOR SECTION: Portions taken of lumbar & cervical cord (Z-A).

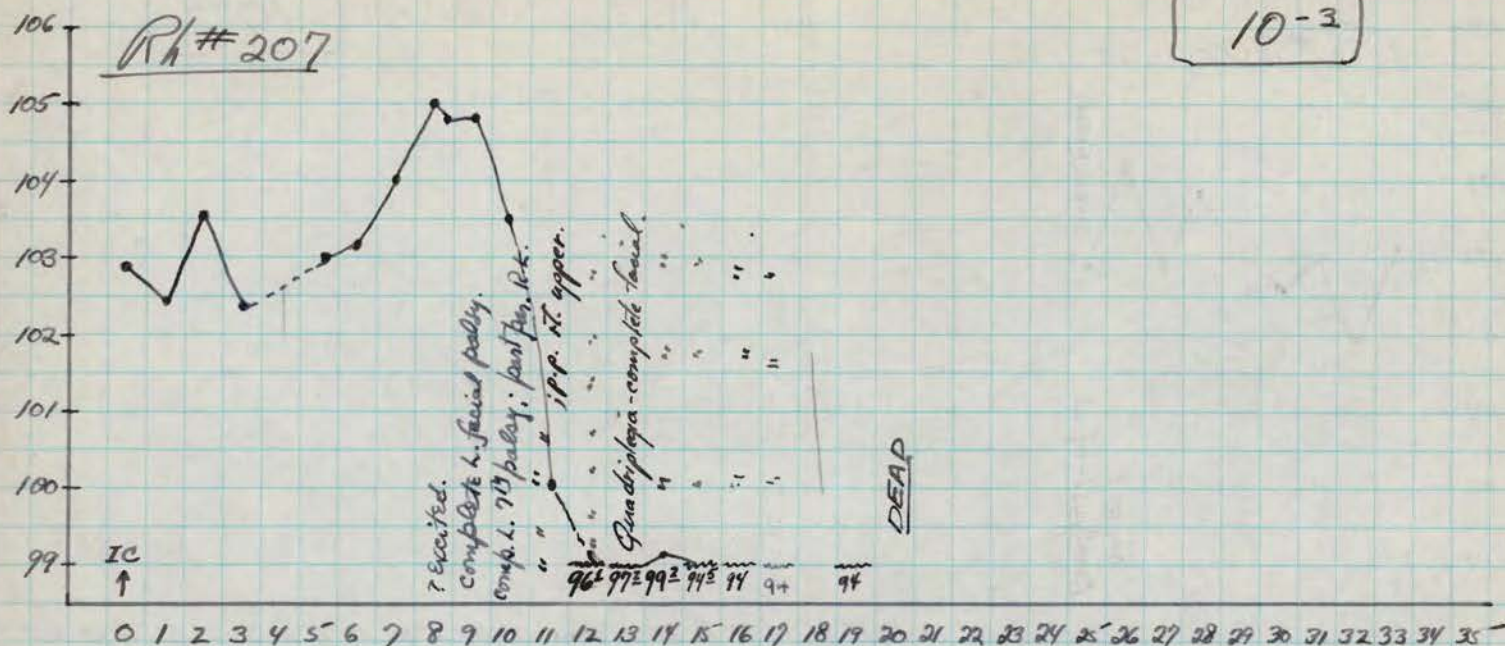
TISSUE FOR VIRUS: Remainder of cord-medulla pooled & that of Rh #205.

MAR 17 1948

TITRATION OF

STRAIN POLIO - Gen. ii

10-3



3-17-48: Inoc. IC with 0.5 cc. of a ^{1:1000} ~~2%~~ susp. in saline virus, gen. ii.

3-26-48: ~~At~~ Complete left facial paralysis; coarse tremors; excited.
P.M. Same.

3-27-48: Complete left Facial paralysis; partial par. rt. lower; weakness of left lower.

3-28-48: Complete left facial paralysis; compl. paralysis left upper + both lowers; partial paralysis of rt. upper.

3-29-48: Same.

3-30-48: Quadriplegia. Complete facial (left).

3-31-48: - No change.

4-1-48: - No change.

4-2-48: - " " " Voice O.K.

4-4-48: Eating very poorly.

4-5-48: Condition very poor. Voice absent.

4-6-48: Found DEAD in a.m. Brief convulsion preceded death by 10 min.

consist consisting of antero-posterior jerking of the head and neck; and accompanied by a severe horizontal nystagmus.

Autopsy: No gross th. Thoracic and abdominal examinations revealed nothing of significance.

TISSUE FOR SECTION: Several portions each of lumbar, thoracic, and cervical cord. (Z-A)

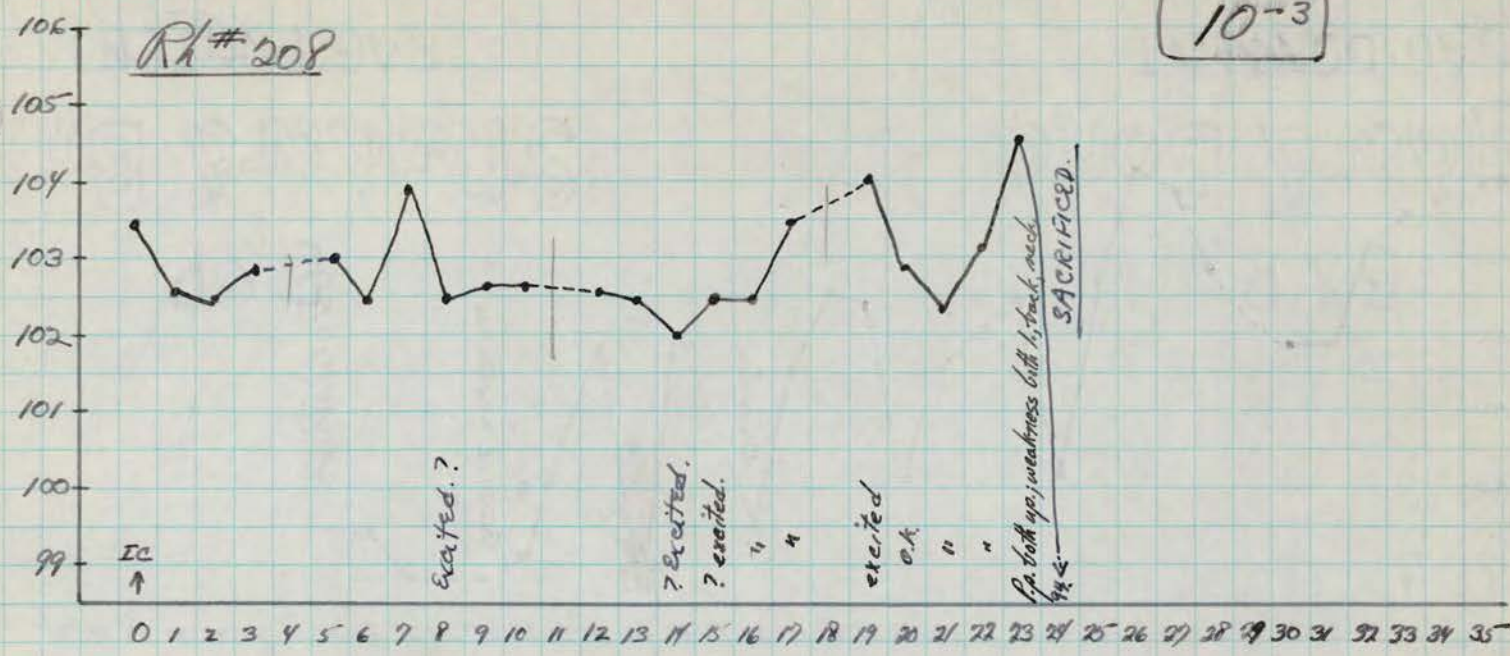
MAR 17 1948

TITRATION OF

STRAIN POLIO (Gen. ij)

10⁻³

R_h # 208



3-17-48: Inoc. IC with 0.5cc of a ^{1:1000} ~~20%~~ susp. in saline - virus-genij
 4-9-48: Par. par. both uppers. Weakness both lowers, back & neck. Voice weak.
 4-10-48: - Temp. below 94°F. Complete quadriplegia; aphonia; nystagmus
 but no facial paralysis. - - Sacrificed.; no gross TBe
 TISSUE FOR PATHOLOGY: Lumbar + cervical cord levels. (Z-A.)

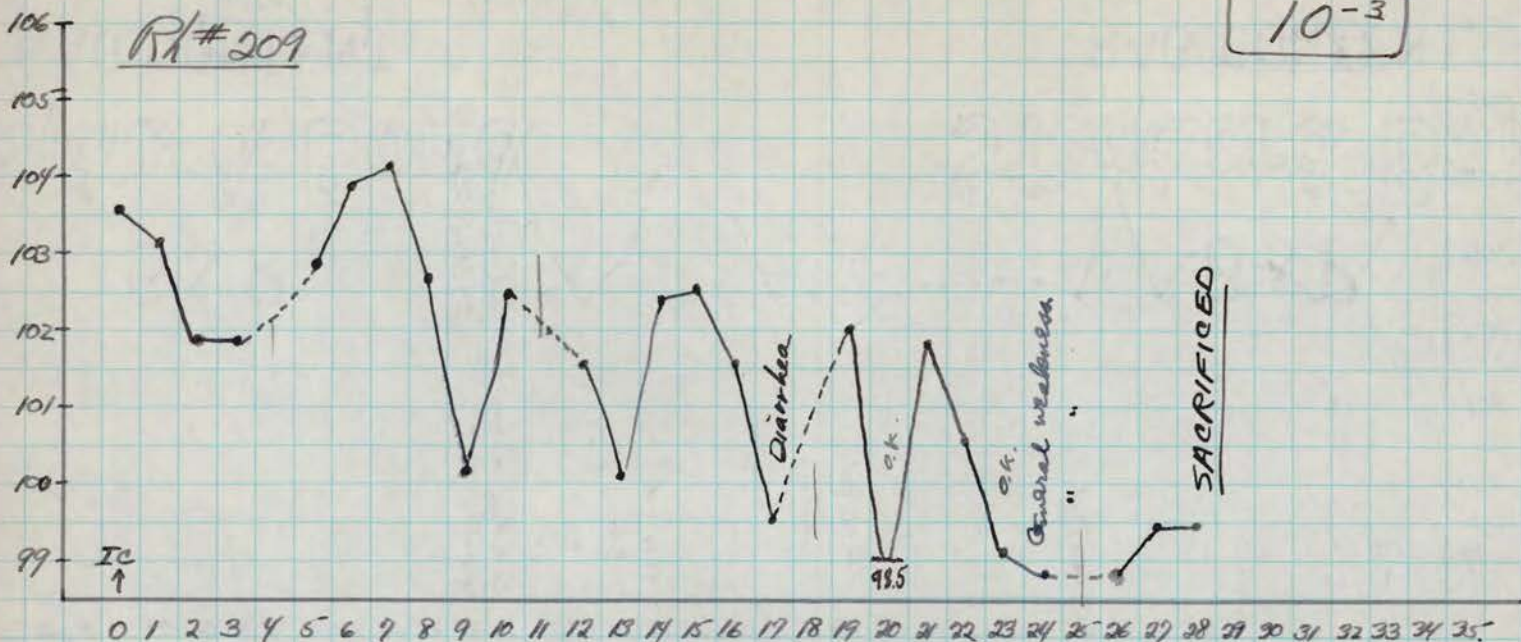
MAR 17 1948

TITRATION OF

STRAIN POLIO (Gen. ii)

10⁻³

R# 209



3-17-48: Inoc. IC with a 0.5 cc amt. of ^{a 1:1000} ~~20%~~ susp. in saline [redacted] virus-gen. ii

4-10-48 (24th day): T=98.8; general weakness not focal; disinclined to climb or move away from stimuli; not coughing; no apparent diarrhea.

4-14-48: SACRIFICED; (chloroform-exsanguination) Autopsy: No gross lcs.
TISSUE FOR SECTION - Hypothalamus, thalamus, midbrain, pons, medulla, and cord levels (Z-A)

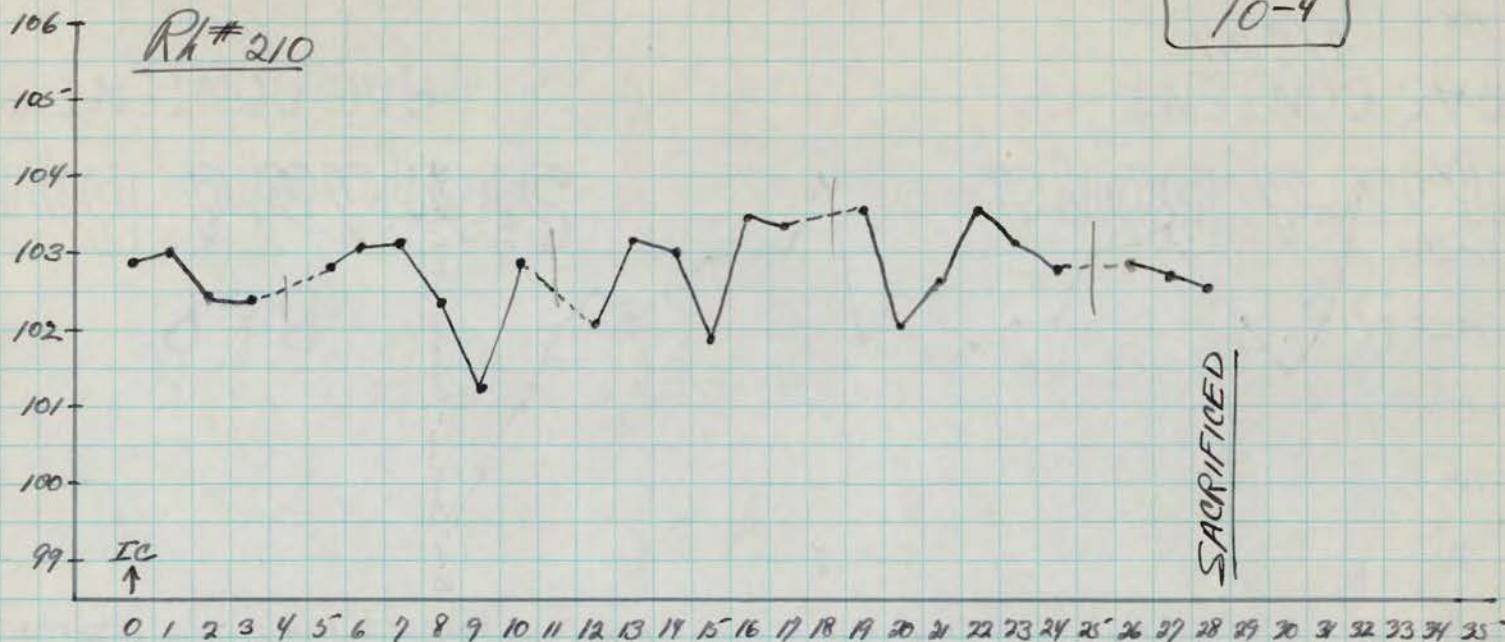
TITRATION OF

STRAIN POLIO (Gen. II)

MAR 17 1948

R# 210

10-4



3-17-48: Inoc. IC with 0.5 cc of a ^{1:10,000} ~~2%~~ susp. in saline [redacted] virus-gen II

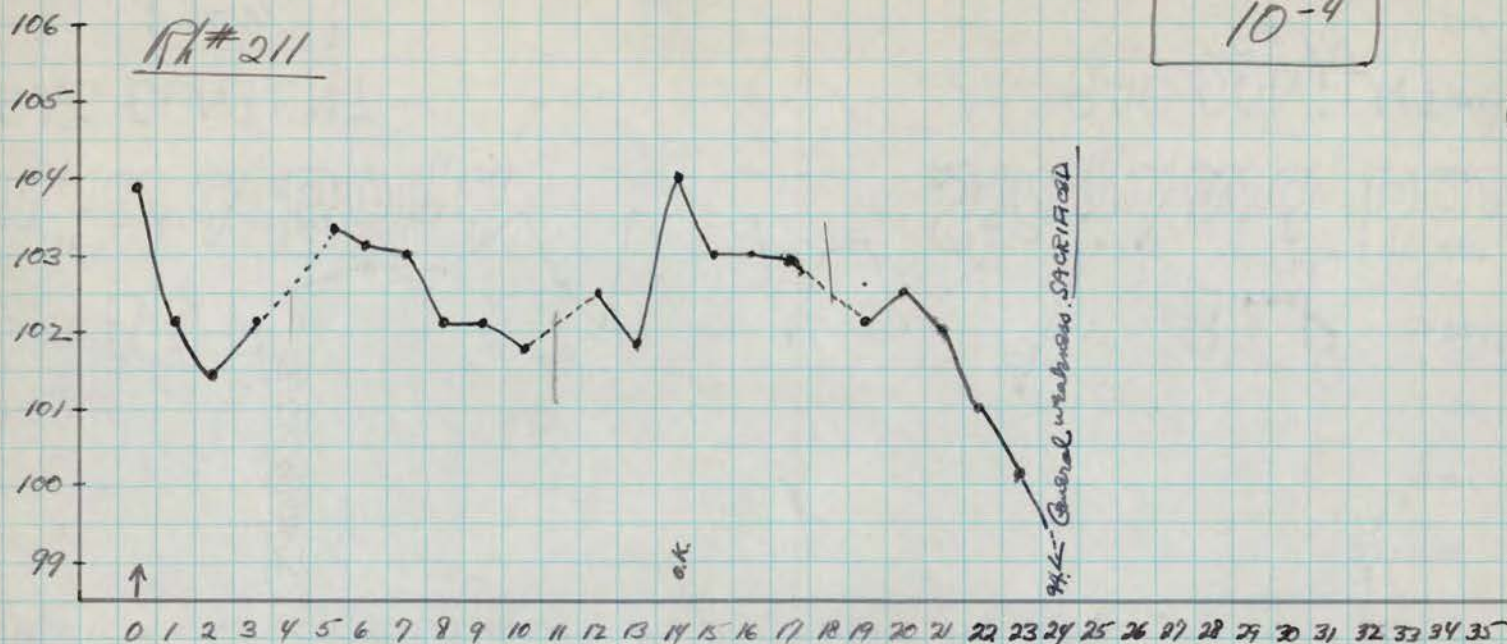
4-14-48: SACRIFICED: (chloroform-exsanguination) Autopsy: No gross the.
 TISSUE FOR SECTION: - Hypothalamus, thalamus, midbrain,
 pons, medulla, and cord levels. (Z-A).

MAR 17 1948

TITRATION OF

STRAIN POLIO (Gen. ii)

10⁻⁴



3-17-48: Trac. IC with 0.5 cc of a ^{1:10,000} ~~2%~~ susp. in saline virus-gen ii

4-10-48 (24th day): Temp. below 94°F. Is generally feeble; very thin; not coughing; no apparent diarrhea; to be sacrificed for CNS examination.

TISSUE FOR HISTOPATHOLOGY: Brain + cord segments 2A.

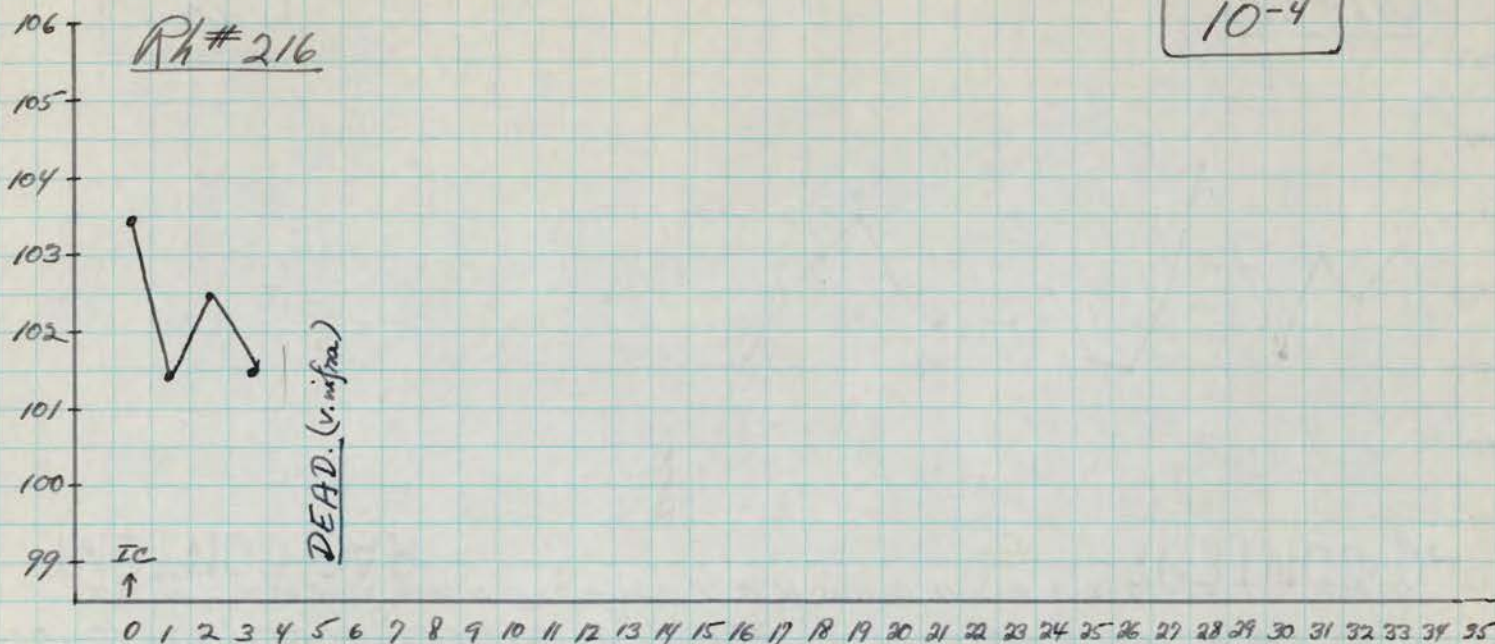
AUTOPSY: Well walled off fibrino-purulent pelvic peritonitis arising near rectal wall; no distinct perforation of rectum seen; however inciting source of peritonitis probably thermometer perforation. - Very profuse sophogastromum infestation. -

MAR 17 1948

TITRATION OF

STRAIN POLIO (Gen. ij)

10-4



3-17-48: Inoc. IC with 0.5cc. of a ^{1:10,000} ~~20%~~ susp. in saline [redacted] virus-gen. ij

3-22-48.- Found dead by [redacted] caretaker whose description is that Ph. 216 who was chained to left front position had his lower extremities hooked onto chain of left rear monkey, thus having trunk, head and neck partially suspended. -- Autopsy: cyanotic tongue protruding between clenched teeth; no petechiae of lungs or pericardium; both lung bases very lightly adherent to corresponding leaves of the diaphragm; very numerous anthraxotic lymph nodes in abdominal cavity as well as thorax; could not demonstrate tear in ant. spinal ligament or cervical spine fracture.

TISSUE FOR HISTOPATHOLOGY: Thalamus; hypothalamus; midbrain; medulla; pons; and spinal cord levels. (2-A.)

MAR 17 1948

TITRATION OF

STRAIN POLIO (Gen.ij)

10-5

Rh # 217



3-17-48: Inoc., IC with 0.5cc of a ^{1:100,000} ~~2%~~ susp. in saline - [redacted] virus-genij

4-5-48: Found DEAD - a.m. Autopsy: No gross pathology found on thoracic and complete abdominal exam. No evidence of fracture of cervical vertebrae.

TISSUE FOR SECTION: Thalamus, hypothalamus, midbrain, pons, medulla, cord levels. (2-A)

6-19-48

reports the following
submitted on 4-2-48

Rh. ^{neg} 143 - Kaughter - Entire case → 2A.
no 158 - T. Smith - Entire case → 2A.
no 1564 - Yeater - Gen. H. | Lumber +
NH Pt. - NH. | Curved only.

on 3-25-48

no ✓ 146 ^{Hoffke} - NH - NH - NH 218-??
no ✓ 162 ^{Hoffke} - NH Pt. - NH Pt.
no ✓ 206 ^{Furner} - NH Pt. - NH (pool)
no ✓ 161 ^{Hoffke} - NH Pt. - NH (pool)
no ✓ 205 ^{Furner} - NH Pt. - NH Pt.
no ✓ 16 ^{Hoffke} - NH, Pt. - NH
no ✓ 220 ^{Hoffke} - NA - NH.

2 - 4 - 107 110 111, 112



Finished on 5-20-48

218 ✓

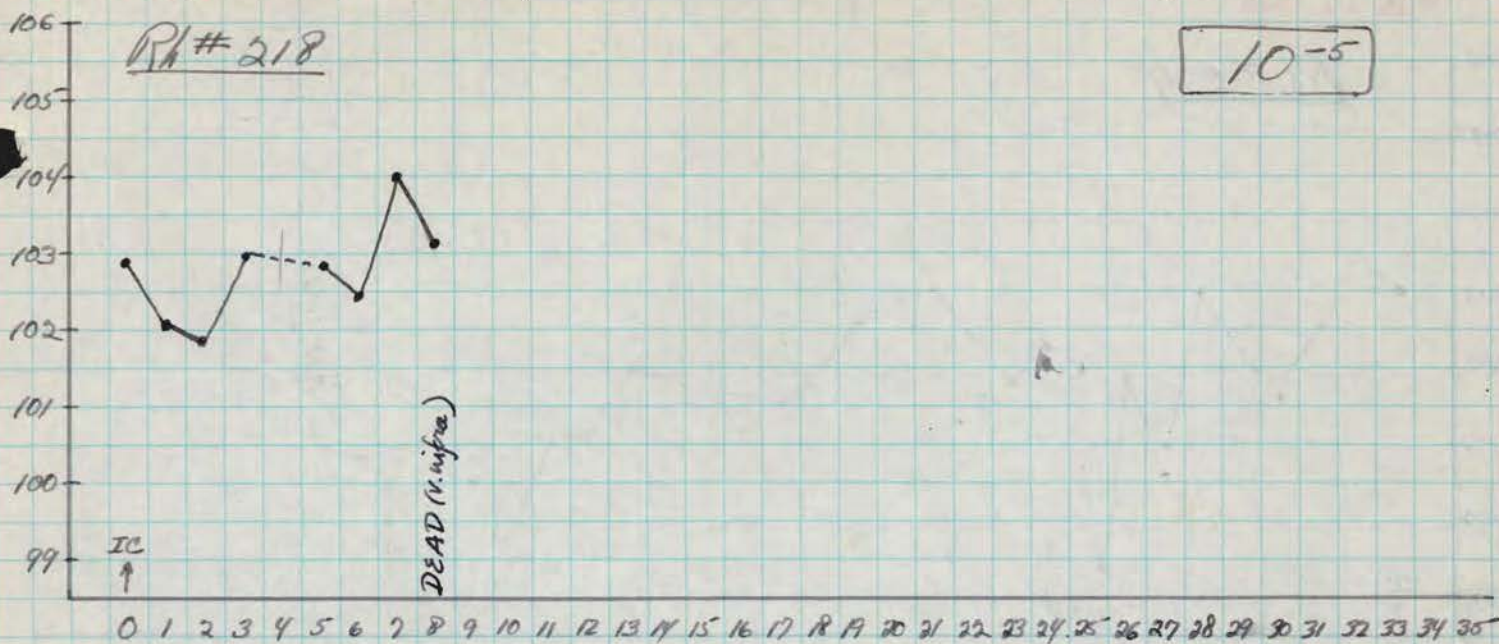
Hofenkamp 148 ✓

Kaughler 143 ✓

Hofenkamp 92 ✓

" 182 ✓

Frut. 292 ✓



3-17-48: Inoc. IC with 0.5cc of a ^{1:100,000} ~~5%~~ susp. in saline - [REDACTED] virus-gen ii

3-25-48: Strangled in same manner and same cage as Rh. 216.

Autopsy: No gross thr. No evidence of cervical spine fracture.

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

(10-28-48)

HISTOLOGY: Thalamus, midbrain, two levels of medulla normal. - N.B. These slides are marked Rh. 218 and dated 3/25/48 which is the date of autopsy. - The two slides of spinal cord attached to the set are marked Rh. 218 but have the date 4/2/48 on the label. [REDACTED] believes this last is merely a typographical error and the slides do go together.

However, the spinal cord slides show recent, though no longer acute polio - i.e. no polys in sites of former neurophagia; and dense glial infiltrate. - There is no root degeneration. - These spinal cord slides cannot be made to "match up" with slides of monkeys autopsied on either 4/2/48 or 3/25/48 - nor with those slides completed on 5/20/48 - the date Rh. 218 slides were finished.

My conclusion as to the above Rh. 218 is ∴

NO POLIO

MAR 17 1948

TITRATION OF

STRAIN POLIO (Gen. ij)

Rh # 219

10^{-5}



3-17-48: Inoc. IC with 0.5cc of $1:100,000$ virus-gen. ij
 3-25-48 - A.M. T=99.4 (checked) P.M. 102. - Monkey seems OK.
 4-14-48: SACRIFICED (chloroform-exsanguination) Autopsy: No gross lbc.
 TISSUE FOR SECTION - Hypothalamus, thalamus, midbrain,
 pons, medulla, and cord levels (2-A)

NEUTRALIZATION TEST IN MONKEYS

APR 12 1948

STRAIN POLIO

5.

SERA.

VIRUS USED: Generation II of [redacted] strain polio - titrated on 3-16-48.

SERA USED: Two sera from [redacted]

ACUTE :- 8/12/47. (4th day of illness)

CONVALESCENT :- 11/11/47. (91st day)

INCUBATION: Serum-virus mixtures at room temp. (75°F.) for one hour; Then into refrigerator overnight (15 hrs.); Then into ice bath during the inoculation procedure on 4-13-48.

MONKEYS: Rhesus; 3 per indicated final dilution.

INOCULUM: 0.5 cc intracerebrally, serum-virus + serum saline as indicated.

FINAL VIRUS CONCENTRATIONS:

	10 ⁻¹	10 ⁻²	10 ⁻³	10 ⁻⁴	
<u>SALINE</u> <u>CONTROL</u>		Rh. 329 Pg. 20 par. +	Rh. 332 D0 ○	Rh. 335 O:K30 ○	
		Rh. 330 Par. 7 +	Rh. 333 O:K30 ○	Rh. 336 P6 +	10 ^{-2.8}
		Rh. 331 Par. 10 +	Rh. 334 O:K30 ○	Rh. 337 ○	
<u>ACUTE</u> <u>SERUM</u> (4th day)	Rh. 324 D5 ○	Rh. 322 O:K29 ○	Rh. 326 D30 ○		10 ^{-0.5?}
	Rh. 338 O:K29 ○	Rh. 323 O:K31 ○	Rh. 327 O:K30 ○		
	Rh. 321 O:K30 ○	Rh. 325 O:K31 ○	Rh. 328 O:K29 ○		
<u>CONVALESCENT</u> <u>SERUM</u> (91st day)	Rh. 308 F17; D20 +	Rh. 315 O:K31 ○	Rh. 318 O:K31 ○		10 ^{-0.7?}
	Rh. 309 O:K31 ○	Rh. 316 O:K31 ○	Rh. 319 O:K29 ○		
	Rh. 310 O:K31 ○	Rh. 317 O:K31 ○	Rh. 320 O:K29 ○		

APR 13 1948

HOMOLOGOUS

NEUTRALIZATION TEST

RH. 329

SALINE CONTROL

10⁻²

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	T = — ✓
4-19-48	6	T = 105 ⁸ ✓
4-20-48	7	T = 105 ⁸ Exited. ? pilotator response.
4-21-48	8	T = 104 ⁶ Chumsy. Occ. flops over.
4-22-48	9	T = 104 ⁶ No change.
4-23-48	10	T = 103 ² Chumsy; flops over easily. Weakness all 4 extremities. Tremors.
4-24-48	11	T = 102 ⁶ No change.
4-25-48	12	Weakness all 4 extremities; ? left foot drop.
4-26-48	13	T = 102 ⁶ Weakness all 4 extrem. Chumsy. Flops over easily. No foot drop. ^{ATS} HHH
4-27-48	14	T = 102 ⁶ Same.
4-28-48	15	T = 102 ² "
4-29-48	16	T = 102 ⁴ "
4-30-48	17	T = 102 ⁶ "
5-1-48	18	T = 101 Chumsy. - Still has some weakness of all extremities; no tremors.
5-2-48	19	Same.
5-3-48	20	T = 102 ⁴ Improved. Lowers stronger.
5-4-48	21	T = 101 ² Same.
5-5-48	22	T = 102 ⁸ "
5-6-48	23	T = 103 ⁶ Very much improved. Only moderately chumsy & lowers.
5-7-48	24	T = 102 ² Same.
5-8-48	25	T = 101 ⁴ Weak + clumsy in all 4 extremities.
5-9-48	26	" " " " "
5-10-48	27	T = 101 ² Same.
5-11-48	28	T = 101 ² "
5-12-48	29	✓ SACRIFICED (CHLOROFORM - EXSANGUINATION) Autopsy: No gross the. TISSUE FOR HISTOPATHOLOGY: Hypothalamus, thalamus, midbrain, pons, medulla, and cord levels. (Z-A)

POLIO "old"

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 330

SALINE CONTROL

10⁻²

DATE DAY REMARKS

DATE	DAY	REMARKS
4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	T=103 ² ✓
4-20-48	7	T=105 ² Complete left facial paralysis. Otherwise o.k.
4-21-48	8	T=104 ⁸ " " " " " "
4-22-48	9	Complete left facial paralysis; clumsy - flops over easily T=104 ²
4-23-48	10	Prostrate. Quadriplegia. Complete left facial. T=99 ²
4-24-48	11	No change. (Left eye covered to prevent corneal ulceration).
4-25-48	12	" "
4-26-48	13	" "
4-27-48	14	Found DEAD in cage - a.m. Autopsy. No gross ts.

TISSUE FOR SECTION - Several portions of lumbar, cervical cord, and of medulla. (Cord very soft.)

HISTOLOGY: Spinal cord shows pronounced acute neuronephagia with few surviving neurones. - Medulla shows heavy PV cuffing and acute neuronephagia - floor of the 4th ventricle.

DIAGNOSIS: ACUTE POLIO

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 331

SALINE CONTROL

10-2

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	T = 105° ✓
4-20-48	7	T = 106° ✓
4-21-48	8	T = 104° Pilot motor response. Occ. fine tremors.
4-22-48	9	T = 104° Chumsy; flops over easily.
4-23-48	10	T = 102° P.p. Left lower; weakness other 3 extremities. Coarse tremors.
4-24-48	11	T = 101° No change, except for a marked pilot motor response.
4-25-48	12	Part. Par. left lower; head tremors; weakness rt. lower both uppers.
4-26-48	13	T = 102° Left lower weaker than rt. lower; weakness both up. Very chumsy.
4-27-48	14	T = 102° Both lowers are <u>very</u> weak, but could not be considered partially paralyzed, today. Otherwise, same. (AJS & HHH)
4-28-48	15	T = 101° Same.
4-29-48	16	T = 102° Lowers improved definitely today; uses them as well as uppers.
4-30-48	17	T = 102° Same.
5-1-48	18	Weakness of all 4 extremities. T = 102.
5-2-48	19	Same.
5-3-48	20	T = 102° Improved.
5-4-48	21	T = 102° Same.
5-5-48	22	T = 102° "
5-6-48	23	T = 103° "
5-7-48	24	T = 103° "
5-8-48	25	T = 102° Weakness of all 4 extremities.
5-9-48	26	" " "
5-10-48	27	T = 103° Same.
5-11-48	28	T = 102° "
5-12-48	29	✓ SACRIFICED (chloroform-exsanguination)

TISSUE FOR SECTION: - Thalamus, hypothalamus, midbrain, pons, medulla, cord levels (Z.A.)

HISTOLOGY:

Cervical, Thoracic, lumbar cord - show root degeneration; neuronal loss; glial infiltration; some perivascular infiltration.
Medulla - shows marked perivascular infiltration as well as local areas of interstitial glial infiltration. - Thalamus - perivascular and interstitial glial infiltration.

DIAGNOSIS - POLIO ("old")

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RE. 332

SALINE CONTROL

10-3

DATE DAY REMARKS

4-13-48

0

✓

pm: Found dead in cage. Autopsy: Massive sub-arachnoid hemorrhage found covering parietal, temporal, and frontal lobes, and extending caudad over the base of the brain as far as the upper border of the pons. Thorax, abdomen, cervical vertebrae negative.

No tissue sections taken for histopathology.

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 333

SALINE CONTROL 10-3

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓ (Abdomen distended)
4-19-48	6	$T = 103^{\frac{8}{8}}$ ✓
4-20-48	7	$T = 103^{\frac{8}{8}}$ ✓
4-21-48	8	$T = 103^{\frac{4}{4}}$ ✓
4-22-48	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
5-13-48	30	✓

SACRIFICED (chloroform-exsanguination) AUTOPSY: No gross the
TISSUE FOR HISTOPATHOLOGY: Single sections of lumbar, thoracic, cervical
 medulla, midbrain, thalamus (ZA)

HISTOLOGY: Examination of above sections reveals no pathology.

DIAGNOSIS: NO POLIO.

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

PR. 334

SALINE CONTROL

10⁻³

DATE	DAY	REMARKS
4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	T = 102 ⁴ ✓
4-20-48	7	T = 104 ⁶ ✓
4-21-48	8	T = 102 ² ✓
4-22-48	9	T = 103 ⁶ ✓
	10	T = 102 ⁰ ✓
	11	T = 102 ² ✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
5-13-48	30	✓

SACRIFICED (chloroform-exsanguination) Autopsy: Inguinal
TISSUE FOR HISTOPATHOLOGY. Single sections of lumbar, ~~thoracic~~, ~~cervical~~
 lower cervical, medulla, midbrain, thalamus. (ZA)

HISTOLOGY: Examination of above sections show no pathologic changes.

DIAGNOSIS: NO POLIO.

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RE. 335

SALINE CONTROL

10⁻⁴

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	T=102 ⁰ ✓
4-20-48	7	T=101 ⁸ ✓
4-21-48	8	T=101 ✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
5-13-48	30	✓

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

HISTOLOGY: Examination of above sections show no pathologic changes.

DIAGNOSIS: NO POLIO

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 336

SALINE CONTROL 10⁻⁴

DATE DAY REMARKS

4-13-48 0 ✓

4-14-48 1 ✓

4-15-48 2 ✓

4-16-48 3 ✓

4-17-48 4 ✓

4-18-48 5 ✓

4-19-48 6 Complete left facial. Chummy - occ. flops over. Weakness
of neck, back, voice. TE 103⁴.

4-20-48 7 Quadriplegia. Complete left facial.

4-21-48 8 " " " " " " P.M.: Moribund!

4-22-48 ~~4~~ SACRIFICED (chloroform-exsanguination) Autopsy: No fix.
TISSUE FOR SECTION - 2 pieces from each of cervical
~~cervical~~ + lumbar portions of cord. (2-A)HISTOLOGY: Severe acute neuronophagia with destruction of all
neurons in these sections.DIAGNOSIS: POLIO (acute)

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 337

SALINE CONTROL

10⁻⁴

DATE	DAY	REMARKS
4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	T = 100 ⁸ ✓
4-20-48	7	T = 101 ✓
4-21-48	8	T = 98 ⁴ ✓
	9	✓
	10	✓
4-24-48	11	T = 99 ⁶
	12	✓
4-26-48	13	T = 101 ⁶ ✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓
5-14-48	31	✓

SACRIFICED (chloroform-exsanguination) AUTOPSY: No gross
TISSUE FOR HISTOPATHOLOGY. Single sections of lumbar, thoracic
 cervical, medulla, midbrain, thalamus. (2) (ZA)

HISTOLOGY: Examination of above sections shows no pathological change.

DIAGNOSIS: NO POLIO.

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 338

ACUTE SERUM 10⁻¹

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
5-12-48	29	✓

SACRIFICED (chloroform-exsanguination)TISSUE FOR SECTION - thalamus, hypothalamus,
midbrain, pons, 2 medulla, 1st & 2nd horns (Z-A)HISTOLOGY: Above sections have no pathological findings.DIAGNOSIS: NO POLIO.

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RE. 324

ACUTE SERUM

10⁻¹

DATE DAY REMARKS

4-13-48 0 ✓

4-14-48 1 ✓

4-15-48 2 ✓

4-16-48 3

4-17-48 4

4-18-48 5.

General weakness, emaciation. No focal weakness

Very passive; general weakness, emaciation. $T = 100^{\circ}$ Found Dead: HISTOPATHOLOGY: Entire CNS into I.A. (23) sections for cord; (3) medulla; midbrain: thalamus & hypothalamus.

Autopsy - showed no gross TBC; monkey emaciated; pulmonary worms; oesophagostomum infestation of peritoneum; peritoneal peritoneum congested; no exudate. -

HISTOLOGY: Above sections show no pathological changes.DIAGNOSIS: NO EVIDENCE OF POLIO

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RE. 321

ACUTE SERUM.

10⁻¹

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
5-13-48	30	✓

SACRIFICED (chloroform - exanguination) Autopsy No gross
TISSUE FOR HISTOPATHOLOGY. Single sections of lumbar, thoracic
 cervical, medulla, midbrain, thalamus (Z A)

HISTOLOGY: Above sections show no pathological changes.

DIAGNOSIS: NO POLIO.

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 322

ACUTE SERUM 10⁻²

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
5-12-48	28	✓
5-12-48	29	✓

SACRIFICED (chloroform - exsanguination)

TISSUE FOR SECTION - Thalamus, hypothalamus, midbrain, (2) medulla, (2) spinal levels (Z-A)

HISTOLOGY: Above sections show no pathological changesDIAGNOSIS: NO POLIO

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 323

ACUTE SERUM. 10^{-2}

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

SACRIFICED (chloroform-exsanguination) Autopsy Negative
TISSUE FOR HISTOPATHOLOGY. Single sections of lumbar, thoracic
 cervical, medulla, midbrain, thalamus, (Z.A)

Histology: Single sections as above - examination negative.

DIAGNOSIS: NO POLIO.

APR 13 1948

HOMOLOGOUS

NEUTRALIZATION TEST

RH. 325

ACUTE SERUM

10⁻²

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓

5-14-48 31 ✓

SACRIFICED (chloroform-exsanguination) Autopsy: No growth
TISSUE FOR HISTOPATHOLOGY Single sections of lumbar, thoracic
 cervical, medulla, mid brain, thalamus. (ZA)

HISTOLOGY: These sections show no pathological changes.

DIAGNOSIS: NO POLIO.

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 326

ACUTE SERUM 10⁻³

DATE DAY REMARKS

4-13-48 0 ✓
 4-14-48 1 ✓
 4-15-48 2 ✓
 4-16-48 3 ✓
 4-17-48 4 ✓
 4-18-48 5 ✓
 4-19-48 6 ✓
 4-20-48 7 ✓
 4-21-48 8 ✓

9 ✓
 10 ✓
 11 ✓
 12 ✓
 13 ✓
 14 ✓
 15 ✓
 16 ✓
 17 ✓
 18 ✓
 19 ✓
 20 ✓
 21 ✓
 22 ✓
 23 ✓
 24 ✓
 25 ✓
 26 ✓
 27 ✓ Thin; diarrhea; very small,
 28 ✓ " "
 29 ✓ " "

30 DEAD A.M. - Autopsy: much mucoid material in larynx; lungs O.K.
 TISSUE FOR PATHOLOGY: myocardium; - cord levels; medulla;
 pons; midbrain; Thalamus; hypothalamus (Z-A)

Histology: Thalamus; midbrain; (myocardium); medulla (3); cervical
 cord (6); Thoracic (5); lumbar (6); all negative -

DIAGNOSIS: No Polio.

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 327

ACUTE SERUM

10-3

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
5-13-48	30	✓

SACRIFICED (chloroform - exsanguination) Autopsy: No gross the
TISSUE FOR HISTOPATHOLOGY Single sections of lumbar, thoracic, cervical
 medulla, midbrain, thalamus ^{basal ganglia} (Z. A.)

HISTOLOGY:

Examination shows only dense cuffing of a single vessel in the
 reticular formation of midulla; no interstitial infiltration.

DIAGNOSIS: NO POLIO

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 328

ACUTE SERUM 10^{-3}

DATE	DAY	REMARKS
4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
5-12-48	28	✓
5-12-48	29	✓

SACRIFICED (chloroform-exsanguination)TISSUE FOR SECTION - Thalamus, hypothalamus,
midbrain, pons, medulla, cord levels (2-A)Histology: Thalamus, midbrain, medulla-pons, medulla (2);
Cervical cord (6); Thoracic (6); Lumbar (5) - all negative.DIAGNOSIS: NO POMO.

APR 13 1948

HOMOLOGOUS

NEUTRALIZATION TEST

RH. 308

CONVALESCENT SERUM

10⁻¹

DATE	DAY	REMARKS
4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	Excited; ? clumsy. T=105°
	18	T=102.4 seems OK.
	19	✓ T=102°
	20	Found <u>DEAD</u> in cage.

Autopsy: (Found lying in bottom of cage - tongue protruding through teeth as though strangled.) No evidence of cervical vertebral fracture. No gross lcs. No pharyngeal, tracheal membrane. Abdomen neg.

TISSUE FOR SECTION - Hypothalamus, thalamus, midbrain, pons, medulla, cord levels (Z-A)

HISTOLOGY: Acute neuronophagia of lumbar, cervical, thoracic cord. medulla, midbrain show acute neuronophagia and PV cuffing. Thalamus shows foci of glial infiltration.

DIAGNOSIS: POLIO (acute)

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 309

CONVALESCENT SERUM 10⁻¹

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓
5-14-48	31	✓

SACRIFICED (chloroform-exsanguination) Autopsy: Thoroughly
TISSUE FOR HISTOPATHOLOGY Single sections of lumbar, thoracic
 cervical, medulla, midbrain, thalamus (ZA)

Histology: Single sections listed above examined - no pathological findings.

DIAGNOSIS: NO POLIO.

APR 13 1948

HOMOLOGOUS

NEUTRALIZATION TEST

RH. 310

CONVALESCENT SERUM

10-1

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓ (Diarrhea)
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓

5-14-48 31 ✓

SACRIFICED (chloroform-exsanguination) Autopsy. No gross lesions.
TISSUE FOR HISTOPATHOLOGY Single sections of lumbar, thoracic
 cervical, medulla, midbrain, thalamus, (Z.A.)
 (corp. striatum)

Histology:

Examination of sections above shows no lesions.

DIAGNOSIS: NO POLIO.

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 315

CONVALESCENT SERUM

10⁻²

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓

5-14-48 31

✓ SACRIFICED (chloroform - exsanguination) autopsy to gross the
TISSUE FOR HISTOPATHOLOGY Single sections of lumbar, thoracic
 cervical, medulla, midbrain, thalamus. (Z A)

Histology: Lumbar (2 levels) } with roots intact. Negative
 Thoracic (2 levels)
 Cervical (1 level)
 Medulla (3 levels)
 Thalamus (1 level)
 Negative
 Negative.

Diagnosis: No Polio.

APR 13 1948

HOMOLOGOUS

NEUTRALIZATION TEST

RH. 316

CONVALESCENT SERUM

10-2

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓

5-14-48 31 ✓

SACRIFICED (chloroform - exsanguination) Autopsy: No gross Abc
TISSUE FOR HISTOPATHOLOGY Single sections of Lumbosacral thoracic
 cervical medulla midbrain thalamus (Z.A.)

HISTOLOGY:

Above sections are normal except for a single cuffed small
 vessel in the thalamus.

DIAGNOSIS: NO POLIO

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 317

CONVALESCENT SERUM

10⁻²

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
	29	✓
	30	✓

5-14-48 31

✓ SACRIFICED (chloroform-exsanguination) Autopsy: No gross lesions
 TISSUE FOR HISTOPATHOLOGY Single sections of lumbar, thoracic
 cervical, medulla, midbrain, thalamus (2A)

HISTOLOGY: Above sections show no pathology.

DIAGNOSIS: NO POLIO.

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 318

CONVALESCENT SERUM

10⁻³

DATE DAY REMARKS

4-13-48 0 ✓

4-14-48 1 ✓

4-15-48 2 ✓

4-16-48 3 ✓

4-17-48 4 ✓

4-18-48 5 ✓

4-19-48 6 ✓

4-20-48 7 ✓

4-21-48 8 ✓

9 ✓

10 ✓

11 ✓

12 ✓

13 ✓ (Diarrhea)

14 ✓

15 ✓

16 ✓

17 ✓

18 ✓

19 ✓

20 ✓

21 ✓

22 ✓

23 ✓

24 ✓

25 ✓

26 ✓

27 ✓

28 ✓

29 ✓

30 ✓

5-14-48 31 ✓

SACRIFICED (chloroform - exsanguination) Autopsy to gross the
TISSUE FOR HISTOPATHOLOGY Single sections of lumbar thoracic
 cervical, medulla, midbrain, ^(70x) thalamus (Z A)

HISTOLOGY:

Sections listed above examined; no pathological findings.

DIAGNOSIS: NO POLIO.

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 319

CONVALESCENT SERUM

10-3

DATE DAY REMARKS

4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
5-12-48	29	✓

SACRIFICED (chloroform-exsanguination)

TISSUE FOR SECTION - thalamus, hypothalamus, midbrain, pons, medulla, cord levels (Z-A)

HISTOLOGY: Lumbar cord (5); Thoracic (5); Cervical (8); medulla (1); medulla pons (1); Midbrain (1) - all negative.DIAGNOSIS:NO POLIO.

APR 13 1948

HOMOLOGOUS NEUTRALIZATION TEST

RH. 320

CONVALESCENT SERUM

10⁻³

DATE	DAY	REMARKS
4-13-48	0	✓
4-14-48	1	✓
4-15-48	2	✓
4-16-48	3	✓
4-17-48	4	✓
4-18-48	5	✓
4-19-48	6	✓
4-20-48	7	✓
4-21-48	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
	21	✓
	22	✓
	23	✓
	24	✓
	25	✓
	26	✓
	27	✓
	28	✓
5-12-48	29	✓

SACRIFICED (chloroform-exsanguination)TISSUE FOR SECTION - Thalamus, hypothalamus,
midbrain, pons, medulla, cerebellum (2-A)HISTOLOGY: Lumbar cord (6); Thoracic cord (5); Cervical cord (7);
Medulla (2); Midbrain; Thalamus - all negative.DIAGNOSIS: No polio.

- HOMOLOGOUS NEUTRALIZATION TEST - SERUM DILUTION METHOD

DILUTIONS OF [REDACTED] SERA VS. [REDACTED] STRAIN VIRUS.

9-8-48 VIRUS USED: Generation ii of [redacted] strain polio virus - same pool as used for initial titration (3-16-48) and for neutralization test of 4-12-48.

SERA USED: Two sera of Donna [REDACTED] CONVALESCENT: -11-11-47. (95RD" " " ")

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

MONKEYS: Normal Rhesus monkeys (NFIP. Okeefe Farms - arrived 9-7-48)

INOCULUM: 0.5 cc IC per monkey.

SERUM-DILUTION TEST:

FINAL VIRUS CONCENTRATION = 1:10
(equal parts corresponding serum dilution and 1:5 virus)

SERUM. DILUTION:

	UNDILUTED.	1:4	1:16	1:64
	Rh. 837	Rh.	Rh.	Rh.
<u>ACUTE</u>	837 P8	843 P7	847 P7	851 P7
(8/12/47)	838 P8	844 P7	848 P7	852 P7
3RD day.	839 P7	845 P10	849 P7	853 P8
	840 P10	846 P6	850 D11 (PR+)	854 P6
	Rh.	Rh.	Rh.	Rh.
<u>CONVALESCENT</u>	855 P11	859 P11	863 D23 ○	867 P21
(11/11/47)	856 K32 ○	860 K32 ○	864 P13	868 P7
90RD day.	857 P10	861 P11	865 P7	869 P20
	858 K32 ○	862 P7	866 D7 +	870?K32 ○

VIRUS CONCENTRATION:—

	1:10	1:100	1:1000
<u>SALINE</u>	Ph. 827 P6	Ph. 831 P7	Ph. 834 P7
	828 P7	832 P6	835 P7
<u>CONTROL</u>	829 P6	833 P5	836 P5
	830 P11		

Homologous Neutralization Test

Serum Dilution Method

Rh. 827.Saline 1:10 Virus.

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
9-14-48	5	T=1032 Pilomotor response. easily exhausted
9-15-48	6	T=1606 Complete Paralysis of right lower. Partial paralysis of left lower and both uppers. Weak neck and back.
	7	Compl. par. both lowers; part. par. both uppers; weak back & neck.
	8	NO change.
	9	4 11
	10	NO Change.
	11	<u>DEAD:</u> <u>Discarded.</u>

Homologous Neutralization Test

Serum Dilution Method

Rh. 828-

Saline 1:10 virus.

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
9-15-48	6	Clumsy: easily exhausted. T=103.5
	7	Partial paralysis all 4 limbs.
	8	" " " " ; neck weak.
	9	No change
	10	No change
	11	No change
	12	" "
	13	" "
	14	" "
	15	Partial Par. all 4 extremities
	16	No change
	17	" "
	18	" "
	19	" "
	20	" "
	21	" "
	22	" "
	23	" "
	24	" "
	25	Partial Paralysis of all extremities
	26	No change
	27	" "
	28	" "
	29	" "
	30	" "
	31	" "
	32	Partial Paralysis of all extremities
10-19-48	40	No change
10-28-48	49	" "
11-13-48	65	Partial Paralysis of all extremities. <u>Sacrificed. Discarded.</u>

Homologous Neutralization Test

Serum Dilution Method

Rh. 829.

Saline 1:10 Virus -

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
9-15-48	5	✓
	6	Partial Paralysis of all extremities T=98.6. Weak back and voice
	7	Complete quadriplegia; voice weak
	8	" " aphonia; moves neck slightly.
	9	No Change
	10	No change.
	11.	No change. → <u>Sacrificed and discarded.</u>

Homologous Neutralization Test

Serum Dilution Method

Rh. 830

Saline 1:10 Virus.

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
9-15-48	6	T=103 ⁸ O.K.
	7	T=104 ⁶ O.K.
	8	T=104 ⁷ O.K.
	9	✓
	10	Clumsy; easily exhausted; no paralysis
9-20-48	11	Partial paralysis both lowers + left upper; weakness rt. upper. Sacrificed - (chloroform-exsanguination) Autopsy: no gross lbc.

Spinal Cord removed aseptically - and pooled with that of Rh. 855, 859, 861 (of this same test); total weight of pooled 4 cords = 16.0 gms. made up as a 20% susp. in saline. - Centrifuge accident resulted in loss of a portion of this material. -

There was ± 25.0 cc of the 20% suspension of this Froman virus (Generation III), frozen in 3 20 cc rubber capped vials (designated #1, 2, 3) Location B-7-6.

Cult: - ✓✓✓

Homologous Neutralization Test

Serum Dilution Method

Rh. 831-

Saline 1:100 virus.

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	-
	4	✓
9-15-48	5	✓
	6	T = 104° ² mild tremors
	7.	Part. par. both lowers; weakness both uppers; head tremors.
	8.	" " " " ; part. par. left upper; weak rt. upper.
	9	No Change
	10	NO Change.
	11.	Partial paralysis all 4 Extremities.- <u>Sacrificed and Discarded</u>

Homologous Neutralization Test

Serum Dilution Method

Rh. 832-

Saline 1:100
virus.

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
9-15-48	5	✓
	6	T=101 ⁵ Partial Paralysis of all extremities
	7	Compl. par. both lowers; part. par. both uppers; weakness of voice neck + back.
	8	Same
	9	No Change
	10	NO change.
	11	Compl. par. both lowers + left upper; part. par. rt. upper. weak neck, back + voice. - <u>Sacrificed and discarded.</u>

Homologous Neutralization Test

Serum Dilution Method

Rh-833-

Saline 1:100 virus

Date	Day	Remarks
Sep. 9, 1948	0	✓

1 ✓

2 ✓

3 ✓

4 ✓

9-14-48

5

Partial Paralysis of all 4 extremities; Complete left facial paralysis.
Weakness of back neck and voice

SACRIFICED: (chloroform-exsanguination)

AUTOPSY: No gross lcs

TISSUE FOR SECTION: very thin segment of lumbar and cervical cord (2. A.)

TISSUE FOR VIRUS: Cord and medulla pooled with that of Rh 836
to make a 20% susp in 35 cc sterile saline. Weight of pooled
material = 5.8gms. ± 32 cc of susp frozen in 3-20 cc amps

Vials #1, 2, 3 frozen and stored (B-8-6)

Culture: ✓✓✓

11-19-48 tissues discarded

Homologous Neutralization Test

Serum Dilution Method

Rh. 834

Saline 1:1000 Virus.

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	Part. par. rt. upper; weakness both lowers.
	8	" " " " and of both lowers; left upper OK.
	9	No Change
	10	NO Change
	11	Compl. par. both lowers + rt. upper; weak left upper.
	12	No change
	13	" "
	14	" "
	15	" "
	16	No Change
	17	" "
	18	" "
	19	" "
	20	" "
	21	" "
	22	" "
	23	" "
	24	" "
	25	Compl. Par. both lowers. Part. Par. rt. upper; weak left upper
	26	No Change
	27	" "
	28	" "
	29	" "
	30	" "
	31	" "
	32	Complete Paralysis of both lowers, Part. Paralysis of rt upper Weakness of left upper.
10-19-48	40	No Change
10-28-48	49	" "
11-13-48	65	Complete Paralysis of left lower, Partial Paralysis of right lower and right upper. right upper. Sacrificed. Discarded.

Homologous Neutralization Test

Serum Dilution Method

Rh. 835-

Saline 1:1000 virus.

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7.	Part. par. all 4 extremities; weakness of back & v. v. v.
	8.	Quadriplegia; nystagmus.
	9.	No Change
	10.	Same - no nystagmus.
	11.	Quadriplegia; aphonia, - <u>Sacrificed and discarded.</u>

Homologous Neutralization Test

Serum Dilution Method

Rh. 836.

Saline 1:1000 virus.

Date	Day	Remarks
Sep. 9, 1948	0	✓

1	✓
---	---

2	✓
---	---

3	✓
---	---

4	✓
---	---

9-14-48	5	Partial Paralysis of all extremities; Complete lft facial paralysis; Complete aphonia. Nystagmus <u>SACRIFICED</u>: (chloroform-exsanguination) <u>AUTOPSY</u>: No gross the <u>TISSUE FOR SECTION</u>: very thin segment of lumbar & cervical cord (2.A.) <u>TISSUE FOR VIRUS</u>: Cord and medulla pooled with that of Rh 833 to make a 20% susp in Saline (see letter) <u>11-19-48</u> tissues discarded
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Homologous Neutralization Test

Serum Dilution Method

Ph. 837

Acute Serum - undiluted -

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
9-14-48	5	✓ Partial paralysis of all 4 limbs.
	6	✓
	7.	T=106°. - O.K.
	8.	T=104.3° - Part. par. Rt. upper. - Clumsy with lower. -
	9.	Partial Paralysis of both lowers; Complete Paralysis of both uppers.
	10.	NO change.
	11.	Quadriplegia; aphonia; complete rt facial paralysis.
		<u>Sacrificed and discarded</u>

Homologous Neutralization Test

Serum Dilution Method

Rh. 838-

Acute Serum - undiluted.

Date	Day	Remarks
Sep. 9, 1948	0	crusted dry lesion outer canthus rt. eye (not tuberculin reaction)
	1	✓ slight improvement today
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	T=105°; excited.
	8	Part. par. both lowers. otherwise O.K. -
	9	No change
	10	Same
	11	Compl. par. left lower; partial par. rt. lower. - <u>sacrificed and discarded</u>

Homologous Neutralization Test

Serum Dilution Method

Rh. 839.

Anti Serum - Undiluted

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	Comp. par. l. upper: weakness all 3 exts.
	8.	Comp. par. l. upper: p. p. of both rows.
	9.	No Change
	10	Same.
	11.	Comp. par. l. upper + rt. lower; part. par. rt. upper + l. lower. <u>Sacrificed and discarded</u>

Homologous Neutralization Test

Serum Dilution Method

Ph. 840Acute Serum - undiluted -

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7.	T=105 ⁸ . O.K.
	8.	T=105 ⁵ . O.K.
	9	✓
	10	Compl. par. both lowers; partial par. both uppers.
	11.	" " " " " " " "
		<u>Sacrificed and discarded</u>

Homologous Neutralization Test

Serum Dilution Method

Ph. 843.

Ante Serum - 1:4

Date Sep. 9, 1948

Day

Remarks

0

✓

1

✓

2

✓

3

✓

4

✓

5

✓

6

✓

7.

Part. par. lowers: uppers easily exhausted.

8.

Compl. par. left lower; partial par. Rt. lower + both uppers
with weakness of neck + back.

9

Complete par. both lowers and right upper; Part. Par. left upper.

10

NO change.

11.

Quadriplegia: weak voice. - Sacrificed and discarded.

Homologous Neutralization Test

Serum Dilution Method

Rh. 844

Acute Serum - 1:4

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7.	Part. par. both lowers; weakness both uppers; complete rt. facial paralysis.
	8.	Compl. par. lt. lower. partial par. left lower and both uppers; compl. rt. facial par.
	9	Compl. Par. both lowers; Part. Par. both uppers, Compl. rt. facial par.
	10	No change.
	11.	Same. - <u>Sacrificed and discarded.</u>

Homologous Neutralization Test

Serum Dilution Method

Ph. 845-

Acute Serum 1:4

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	T=106.4 Excited.
	8	T=105.9; Excited.
	9	Both lowers are clumsy.
	10	Partial paralysis of both lowers and left upper.
	11	Part. par. all 4 extremities.
	12	No change
	13	" "
	14	" "
	15	" "
	16	" "
	17	" "
	18	" "
	19	" "
	20	" "
	21	" "
	22	" "
	23	" "
	24	" "
	25	Part Paralysis of all extremities; very thin and passive.
10.5-48	26	<u>FOUND DEAD</u> - Discarded.

Homologous Neutralization Test

Serum Dilution Method

Rh. 846

Acute Serum 1:4.

Date	Day	Remarks
Sep. 9, 1948	0	mild edema of scalp.
	1	scalp much better
	2	✓
	3	✓
	4	✓
9-15-48	5	✓
	6	Complete Paralysis of right upper. Weakness of other extremities
	7	and both lowers; partial
	8	paralysis of left upper; weakness neck back + voice.
	9	Same.
	10	Quadruplegia
	11	Same. Same plus aphonia. - <u>Sacrificed and discarded.</u>

Homologous Neutralization Test

Serum Dilution Method

Ph. 847

Acute Serum 1:16

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	Partial par. both lowers; weakness both uppers + voice.
	8.	Compl. par. both lowers; part. par. both uppers; weakness of neck; back; voice.
	9.	No Change
	10	Same.
	11	<u>DEAD.</u> Discarded.

Homologous Neutralization Test

Serum Dilution Method

Rh. 848

Acute Serum 1:16

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	Compl. par. both lowers; part. par. both uppers; weakness of neck & back.
	8.	Compl. par. both lowers; part. par. both uppers; weakness of neck & back.
	9.	Compl. par. both lowers and left upper; part. par. rt. upper; weakness of neck & back.
	10	Same.
	11.	Moribund. (Dead) <u>Discarded</u>

Homologous Neutralization Test

Serum Dilution Method

Ph. 849-

Acute Serum 1:16

Date	Day	Remarks
Sep. 9, 1948	0	✓ (early cataract O.S.)
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	Partial par. rt. upper; easily exhausted.
	8.	Part. par. both lowers + rt. upper; weakness left upper.
	9.	Complete par. rt upper; Part. par. other three extremities
	10	Same.
	11.	Compl. par. both up lowers; part. par. both uppers; weak neck voice + back.
		<u>Sacrificed and discarded</u>

Homologous Neutralization Test

Serum Dilution Method

Ph. 850

Acute Serum 1:16

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	T=101 st O.K.
	8	T=102 nd O.K.
	9	✓
	10	Weakness of left lower; easily exhausted.
11	<u>DEAD</u> : Autopsy: no gross Bo.	
Tissues: 2 lumbar cord; 1 Thoracic; 3 Cervical; 2 medulla. (2A).		
<u>HISTOLOGY</u> : Acute neuronal necrosis, with acidophilic neurons, and poly infiltration.		
<u>DIAGNOSIS</u> : <u>POLIO</u> (acute)		

Homologous Neutralization Test

Serum Dilution Method

Ph. 851

Acute Serum 1:64

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓ T=104°.
	7	Part. par. all 4 extremities; weakness neck & back.
	8	Part. par. " " " " " "
	9	Complete Par. both lowers and it. upper; Part. Par. left upper; Weak neck & back.
	10	Same.
	11	Same.
	12	No Change
	13	Same.
	14	No Change
	15	Compl. Par. both lowers and it. upper; Part. Par. left upper; Weak neck & back.
	16	No Change
	17	" "
Sept. 27, 1948	18	<u>Dead -</u> Discarded.

Homologous Neutralization Test

Serum Dilution Method

Rh. 852

Acute Serum 1:64

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓ T=105°
	7	Compl. par. both lowers; uppers O.K.
	8	" " " " " "
	9	Compl. par. both lowers; uppers are easily exhausted
	10	Same
	11	Compl. par. both lowers; part. par. both uppers; weakness of voice & back.
	12	No Change
	13	" "
	14	" "
	15	" "
	16	No Change
	17	" "
	18	" "
	19	" "
	20	" "
	21	" "
	22	" "
	23	Compl. Par. both lowers Part par. both uppers; Weak back but can move head and neck well
	24	Same.
	25	"
	26	"
	27	"
	28	Same but back is much stronger and monkey can now sit up.
	29	No Change
	30	" "
	31	Same.
	32	No Change
10-19-48	40	" "
11-3-48	53	<u>DEAD</u> - Discarded.

Homologous Neutralization Test

Serum Dilution Method

Rh. 853

Acute Serum 1:64

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	-
	4	✓
	5	✓
	6	✓ T=103.8.
	7	T=106.6 - clumsy in use of lowers; excited.
	8.	Part. par. both lowers + rt. upper; compl. rt. facial paralysis
	9.	No change
	10	Same.
	11.	Compl. par. both lowers; part. par. both uppers; compl. rt. facial paralysis; weak neck, voice; back.
		<u>Sacrificed and discarded</u>

Homologous Neutralization Test

Serum Dilution Method

Rh. 854

Acute Serum 1:64

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
9-15-48	5	✓
	6	Partial Paralysis of both lowers. Weakness of both uppers.
	7	Partial paralysis all 4 extremities; tremors; weakness of neck, back + voice.
	8	Quadriplegia; weak voice; can move neck.
	9	No Change
	10	Same.
	11	Same. - <u>Sacrificed and discarded.</u>

Homologous Neutralization Test

Serum Dilution Method

Rh. 855Conv. Serum - undiluted.

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	T=104 2 OK.
	8	T=104 2 OK.
	9	✓
	10	✓
9-20-48	11	Compl. par. both uppers; part. par. both lowers; weak vocal, neck + back. - - Sacrificed (chloroform-exsanguination) - Autopsy no gross TB. Spinal cord removed aseptically - pooled with Rh. 830, 859, 861. - See details under <u>Rh. 830.</u>

Homologous Neutralization Test

Serum Dilution Method

Rh. 856

Conv. serum - undiluted

Date Sep. 9, 1948 Day 0 Remarks

1 ✓
2 ✓
3 ✓
4 ✓
5 ✓
6 ✓
7 T=1026.
8 T=1021
9 ✓
10 ✓
11 ✓
12 ✓
13 ✓
14 ✓
15 ✓
16 ✓
17 ✓
18 ✓
19 ✓
20 ✓
21 ✓
22 ✓
23 ✓
24 ✓
25 ✓
26 ✓
27 ✓
28 ✓
29 ✓
30 ✓
31 ✓

10-12-48 32 ✓ Sacrificed (chloroform. exsanguination). Autopsy: no gross PBr.

Tissues: 2 medulla; 3 cervical; 2 thoracic; 3 lumbar. (Z.A.).

HISTOLOGY: Above segments reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Serum Dilution Method

Rh. 857.

Conv. Serum - undiluted

Date	Day	Remarks
Sep. 9, 1948	0	✓

1	✓
---	---

2	✓
---	---

3	✓
---	---

4	✓
---	---

5	✓
---	---

6	✓
---	---

7	T=104.4 O.K.
---	--------------

8	T=103.5 O.K.
---	--------------

9	✓
---	---

10	Partial paralysis both uppers.
----	--------------------------------

11	Compl. " both uppers; part. par. both lowers; aphonia; Weak neck + back.
----	---

Sacrificed and discarded

Homologous Neutralization Test

Serum Dilution Method

Rh. 858-

Conv. Serum - undiluted.

Date Day Remarks

Sep. 9, 1948

0

✓

1

✓

2

✓

3

✓

4

✓

5

✓

6

✓

7

T=1035 O.K.

8

T=1028

9

✓

10

✓

11

✓

12

✓

13

✓

14

✓

15

✓

16

✓

17

✓

18

✓

19

✓

20

✓

21

✓

22

✓

23

✓

24

✓

25

✓

26

✓

27

✓

28

✓

29

✓

30

✓

31

✓

10-12-48

32

✓ Sacrificed (chloroform asanguination) - Autopsy: no gross Mr.

TISSUES: 2 Medulla; 5 Cervical; 2 Thoracic; 4 Lumbar. (2A).

HISTOLOGY: Above segments reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Serum Dilution Method

Rh. 859-

Conv. Serum 1:4

Date	Day	Remarks
Sep. 9, 1948	0	✓

1	✓
2	✓
3	✓
4	✓
5	✓
6	✓
7	✓
8	✓
9	✓

9-20-48.

10	tremors of head; excited.
----	---------------------------

11	Part paralysis of all 4 Extremities. —
----	--

Sacrificed (chloroform-asanguination) — Autopsy: no gross TB.

Spinal Cord removed aseptically — pooled with that of Rh. 830, Rh. 855, 861. — See details under Rh. 830.

Homologous Neutralization Test

Serum Dilution Method

Rh. 860

Conv. Serum 1:4

Date	Day	Remarks
Sep. 9, 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	✓

10-12-48 32 ✓ Sacrificed chloroform exsanguination. Autopsy: no gross Br.

Tissues: 2 medulla; 3 cervical; 2 Thoracic; 4 lumbar. (Z.A.).

HISTOLOGY: Above segments reveal no pathology.

DIAGNOSIS: NO POLIO

Homologous Neutralization Test

Serum Dilution Method

Rh. 861Conv. Serum 1:4Date Day Remarks
Sep. 9, 1948 0 ✓

1 ✓

2 ✓

3 ✓

4 ✓

5 ✓

6 ✓

7 T=105°. Excited; easily exhausted.

8. T=104°. seems OK.

9. ✓

10 head tremors; excited; easily exhausted.

9-20-48 11 Part. par. all 4 extremities; compl. left facial; weak neck
voice & back.

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

Spinal cord removed aseptically and pooled with that of Rh. 830,
855, 859. - See details under Rh. 830.

Homologous Neutralization Test

Serum Dilution Method

Ph. 862-

Convul. Serum 1:4

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	Compl. par. both lowers + rt. upper; part. par. left upper; weakness neck; back; voice.
	8	Tetraplegia; weak voice; can move neck,
	9	No Change
	10	NO Change.
	11	NO change. - <u>Sacrificed and discarded</u> -

Serum Dilution Method

Conval. Serum 1:16

Date	Day	Remarks
Sep. 9, 1948	0	✓

2 ✓

3 1

4 ✓

5 ✓

6	✓
---	---

7 $T=10$

8. ✓

9 ✓

10 ✓

11 ✓

12 ✓

13 ✓

14. ✓

15	✓
----	---

13	✓
14	✓

10	✓
11	

17	✓
18	

18	✓
16	✓

19 ✓

20	✓
21	✓

21	✓	✓
22	✓	✓

22. 1-3

23 DEF

TISSUES FOR SECTION: Thalamus; midbrain; 2 Medulla; 4 Cervical;
1 Thoracic; 4 lumbar cord. (2-A).

HISTOLOGY: Bone segments reveal no pathology.

DIAGNOSIS: NOT POLIO

Homologous Neutralization Test

Serum Dilution Method

Rh. 864-

Conv. Serum 1:16

Date	Day	Remarks
Sep. 9, 1948	0	mild diarrhea.
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	T=1034. OK.
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	Partial par. both lowers; weakness both uppers.
	14	Compl. par. rt. lower; part. par. left lower + both uppers.
	15	No Change
	16	Compl. Par. both lowers; Part. Par. both uppers. Weak back & neck
	17	No Change
	18	Quadriplegia
	19	Quadriplegia and Complete aphonia
9/29/48	20	DEAD: Discarded.

Homologous Neutralization Test
Serum Dilution Method

Rh. 865-

Conval. Serum 1:16

Date Day

Sep. 9, 1948

0

Remarks

✓

1

✓

2

✓

3

✓

4

✓

5

✓

6

✓

7.

Compl. paralysis both towers; part for both upper; weakness
neck, voice & back.

8.

Quadriplegia, voice is weak.

9

No Change

10

No change.

11

No change. — Sacrificed and discarded.

1.

Homologous Neutralization Test

Serum Dilution Method

Ph. 866-

Conv. Serum 1:16

Date	Day	Remarks
Sep. 9, 1948	0	Developed tonic spasm of all 4 extremities, head retraction and jerky respirations about 1 minute after inoculation; breathing subsequently became more regular but all 4 extr. still spastic, especially rt. upper and rt. lower; animal very placid.
	1	Spastic and incoordinated in all 4 extremities; shrill cry; very passive. Mild cyanosis of mucous membranes.
	2	Spastic in all 4 extr.; more pronounced in rt. upper and rt. lower; animal is very passive; seems to be more lively and interested.
	3	Condition same today.
	4	No change.
	5	Same. T = 102.2.
	6	Same T = 102.5 <u>no gross TBC</u>
	7	DEAD. - Autopsy: Extensive symmetrical intra-ventricular blood clots lateral ventricles down thru 4th ventricle TISSUES FOR SECTION: - lumbar, cervical, Thoracic cord levels; 2 medulla; midbrain; Thalamus. (Z-A.)

HISTOLOGY: Acute early neurophagia in all cord levels; medulla shows acute neurophagia and PV cuffing - especially in the reticular formation. - (Organizing hemorrhage in 3 ventricles.)

DIAGNOSIS: POLIO (acute)

Homologous Neutralization Test

Serum Dilution Method

Rh. 867-

Conval. Serum 1:64

Date	Day	Remarks
Sep. 9, 1948	0	✓ Corneal scar O.D.
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	T=1036. O.K.
	8	✓
	9	✓
	10	✓
	11	✓
	12	✓
	13	✓
	14	✓
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
9-30-48	21	Partial Paralysis of both lowers.
	22	No Change.
	23	" "
	24	" "
	25	" "
	26	" "
	27	" "
	28	" " lowers getting a little stronger
	29	No Change
	30	" "
	31	No Change.
	32	" "
10-19-48	40	" "
10-28-48	49	" "
11-13-48	65	Same but more atrophy in rt. lower than left lower. - Perfused with saline, then 10% Formal - Saline with 1% acetic acid. No gross nec tissues: 3 lumbar; 1 thoracic; 2 cervical; 3 medulla; midbrain - (Z-A) thalamus

Homologous Neutralization Test

Serum Dilution Method

Rh. 868

Conv. Serum 1:64

Date	Days	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	Compl. par. rt. lower; part. par. l. lower, both uppers; coarse tremors; weakness of neck & back.
	8	Same today.
	9	Compl. par. both lowers; Part. par. both uppers, Weak neck & back.
	10	NO Change.
	11	NO Change.
	12	" "
	13	" "
	14	NO Change.
	15	" "
	16	" "
	17	" "
	18	" "
	19	" "
	20	" "
	21	" "
	22	" " but can now sit up & hold head up.
	23	Same Condition
	24	Same
	25	"
	26	"
	27	"
	28	No Change
	29	" "
	30	" "
	31	Same.
	32	"
10-12-48	40	"
10-28-48	49	"
11-13-48	65	almost complete paralysis of both lowers. Partial Paralysis of both uppers. Neck and back O.K. now <u>Sacrificed - Discarded.</u>

Homologous Neutralization Test

Serum Dilution Method

Rh. 869-

Conv. Serum 1:64

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	T=104.4; pilomotor +; Excited
	8	Excited.
	9	" "
	10	Excited; pilomotor +.
	11	" "
	12	Excited.
	13	Pilomotor +.
	14	Seems OK.
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
9-29-48	20	Partial paralysis of all 4 extremities. T=101°.
	21	Quadriplegia. Weak voice
	22	No change.
	23	" " but feeble movement in right hand.
	24	Same.
	25	"
	26	"
	27	"
	28	No Change. Monkey can move head and eat well
	29	No Change
	30	" "
	31	Same.
	32	No Change
10-19-48	40	Compl. Par. both lowers and left upper; Part. Par. rt upper.
11-1-48	53	DEAD - Discarded.

Homologous Neutralization Test

Serum Dilution Method

Rh. 870

Conv. Serum 1:64

Date	Day	Remarks
Sep. 9, 1948	0	✓
	1	✓
	2	✓
	3	✓
	4	✓
	5	✓
	6	✓
	7	T=102° O.K.
	8	Excited.
	9	"
	10	Excited; pilomotor +.
	11	Excited; pilomotor +.
	12	Excited. -
	13	? Excited.
	14	Seems OK today.
	15	✓
	16	✓
	17	✓
	18	✓
	19	✓
	20	✓
9-30-48	21	Both lowers are awkward. Monkey is easily exhausted and is disinclined to climb.
	22	Disinclined to climb.
	23	"
	24	Disinclined to climb - but no weakness or paralysis.
	25	No Change
	26	"
	27	"
	28	Same
	29	"
	30	"
	31	Same.
10-12-48	32	No Change - Sacrificed (chloroform-exsanguination). No gross TBc.

TISSUES: 2 Medulla; 4 Lumbar; 2 Thoracic; 5 cervical. (ZA)

HISTOLOGY: Above sections do not reveal any root degeneration, neuronal loss; cuffing; or infiltrative changes.

DIAGNOSIS: NO POLIO