

Intracerebral Monkeys

- ✓ 5990 - Mah., KP33 - D₃ - 10⁻¹ + 10⁻² * } ✓ 2/9
- ✓ 5992 - " " - D₅ - " " * } ✓ 2/16
- ✓ 5861 - " , KP35, lot 1 - P₅; D₆ - 10⁻¹ to 10⁻⁶ - 15 tubes ✓ 2/8
- ✓ 5865 - " " " - P₆; D₈ - 10⁻¹ to 10⁻⁶ ✓ 2/10
- ✓ 5868 - " " " - P₅; K₅ - 10⁻¹ to 10⁻⁶ ✓ 2/7
- ✓ 5879 - " " ; lot 2 - P₁; K₅ - 10⁻¹ to 10⁻⁶ ✓ 2/7
- ✓ 5881 - " " , lot 3 - P₈; D₉ - 10⁻¹ to 10⁻⁶ 2/11
- 5891 - Y₂SK, KP53, lot 1 - P₁₁; K₁₁ - 10⁻¹ to 10⁻⁶ 2/13
- ✓ 5893 - " , " , " - P₇; K₈ - 10⁻¹ to 10⁻⁶ P 5834 2/10
- ⊙ 5898 - " , " , " - P₁₄; K₁₄ - 10⁻¹ to 10⁻⁶ 2/16
- ~~5904~~ - " , " , lot 2 - M₁₁; K₁₁ - 10⁻¹ + 10⁻² - 6 tubes
- ✓ 5905 - Y8K, KP53, lot 2 - P₁₄; K₁₄ - 10⁻¹ to 10⁻⁶ 2/16
- ✓ 5906 - " , " , " - P₆; K₆ - " " 2/8
- ⊙ 5909 - " , " , " - P₁₄; K₁₄ - " " 2/16
- ✓ 5912 - Y8K, KP53, lot 3 - H_{em} 10; K₁₀ - " " 2/12
- ✓ 5918 - " " " - P₁₃; K₁₃ - " " 2/15
- ✓ 5986 - Leon, KP34 - D_{2 1/2} - 10⁻¹ + 10⁻² - 6 tubes * } ✓ 2/12
- ✓ 5926 - Leon, KP36, lot 1 - P₁₃; K₁₃ - 10⁻¹ to 10⁻⁶ 2/15 ✓
- ✓ 5933 - " " , lot 2 - P₁₄; K₁₄ - 10⁻¹ to 10⁻⁶ 2/16 ✓
- ✓ 5938 - " " , " - D₁₀ - 10⁻¹ + 10⁻² - 6 tubes * } ✓ 2/12
- ✓ 5939 - " " , " - D₈ - " " - 6 " * } ✓ 2/10
- ⊙ 5961 - Br. End. Chimp KP26 - P₁₂; K₁₂ - 10⁻¹ to 10⁻⁶ - 15 tubes 2/14
- ✓ 5954 - Br. , KP28 - P₇; D₇ - 10⁻¹ to 10⁻⁶ 2/7
- ✓ 5956 - " " - P₆; K₆ - " " 2/8
- ✓ 5928 - Leon KP36, lot 1 - P₁₆; K₁₆ - 10⁻¹ to 10⁻⁶ ✓ 2/18
- ✓ 5854 - Mah + YSK + Leon icm, sep - D₁₇ - 10⁻¹ + 10⁻² ✓ 2/18
- ✓ 5791 - Leon KP36, lot 1 icm - D₁₆ - 10⁻¹ + 10⁻² ✓ 2/19
- ✓ 5925 - Leon KP36, lot 1 icm - dying 10⁻¹ + 10⁻² ✓ 2/19
- ⊙ 5924 - Leon KP36, lot 1 icm, P₁₈; K₁₈ 10⁻¹ to 10⁻⁶ 2/20

STANDARD B & P "NOISEAR"

STANDARD B & P "NOISEAR"

Intracut. Titrations Monkeys

Dead Animals - only $10^{-1} + 10^{-2} = 6$ tubes/monkey

<u>Cyn No.</u>	<u>Inoculum</u>		
5841	3 types mixed	-D12	2/14
5855	3 types sep.	-D10	2/12
5859	" " "	-D14	2/16
5730	Y-sk Monkey, Lot 1	-D11	2/14
5760	Y-sk, lot 1	-D8	2/11
5774	" , Lot 2	-D10	2/13
5779	" , Lot 3	-D11	2/14
5795	Leon, KP36, Lot 1	-D7	2/10
5834	Br. End-Chimp KP26,	-D8	2/10

All ground up

4x6 = 54

5x6 = 30

84

14 titrations $10^{-1} + 10^{-2}$
 1 " 10^{-1} to 10^{-6}

2/20/54

✓ Cyn 5977 Y-sk 51 i. cut. 2/20

✓ Cyn 5781 - Ysk lot 3 i cut D 2/21 - $10^{-1} + 10^{-2}$ 2/21

✓ 5804 - Leon " 2, i. cut. D 2/21 - $10^{-1} + 10^{-2}$ 2/21

2/23/54

✓ Cyn 5996 2/23

✓ Cyn 5815 2/23

✓ 2/26/54 Cyn 5937 2/26 cym.

(over)

Complete titrations 10^{-1} to 10^{-6} —

<u>Cyn No.</u>	<u>Inoculum</u>				
*5731	PK , Lot L-cut	P ₁₃ ; K ₁₃	10^{-1} to 10^{-6}	—	15 tubes
<u>5829</u>	Br; KP28-cut	P ₅ ; K ₆	" "	" "	" "

All ground up

February 17, 1954

Cym. 5731

receiving Frakomy Lot 1, Intracutaneously

Paralyzed thirteen days after inoculation killed same day

frozen sections of lumbar & thoracic cord weighing 0.6 gm.
ground into 10% susp in Hank's compl. centrifuged
supernatant stored A-4-8 ~~7/18~~

Subcutaneous Series 15 of 21 154

Dil. Amount	Tube	7/8	7/9	7/10	7/11	7/12	7/13	7/14	7/15
Instilled	No.	1	2	3	4	5	6	7	8
0.2 ml / 10 ⁻¹	15-15	0	0	0	2	4-5			
	16	0	2	off					
	17	0	0-1	2	4-5				
10 ⁻²	18	0	0	0	0	3-4	off		
	19	0	0	0	0	4			
	20	0	0	4					
10 ⁻³	21	0	0	0	0	0	0	0	0
	22	0	0	0	0	0	0	0	0
	23	0	0	0	0	0-1	off	* Part	harvested 3/2/54 stored A-4-89
10 ⁻⁴	24	0	0	0	0	0	0	0	0
	25	0	0	0	0	0	0	0	0
10 ⁻⁵	26	0	0	0	0	0	0	0	0
	27	0	0	0	0	0	0	0	0
10 ⁻⁶	28	0	0	0	0	0	0	0	0
	29	0	0	0	0	0	0	0	0

3/2/54 *

0.2 ml from tube 27-1 4-5 } discard
15-23 10⁻³ dil 27-2 4-5 }

Save
Terminal
dil. tube
harvest
& freeze

5876

5887

5866

5788 - Ysk. Lot 3 i-cut

5875

5820 - Br. KP28 i-cer.

5872

2-15-74) discard
not supposed
to have been
taken

~~5885~~

5914 - Ysk Lot 3 i-cer

5866 - Mah
lot 1 i-cer

~~5972~~

5872 } Mah.

5954 - Br. KP28 i-cut
- grind

5875 } lot 2

5876 } i-cer

~~5972~~

Glen virus

5885 } Mah

5887 } lot 3
- i-cer

~~Grand 5954~~

February 9, 1954

Agar 5749 Dead

receiving Monkey Lot 2. Intracutaneous

Dead 6 days after i.cut. injection of $10^{6.4}$ TC₅₀

Pyogenic meningitis
no polio

Virus Dilution & Amount	Tube No.	2/10	2/11	2/12	2/13	2/14	2/15	2/16	2/17	2/18	2/19	Discarded /
		1	2	3	4	5	6	7	8	9	10	
0.2 ml / 10^{-1}	9-28	0	0	0	0	0	0	0	0	0 _a	0 _a	Discard
	29	0	0	0	0	0	0	0	0 _a	0 _a		
	30	0	0	0-1	4*	off						
0.2 ml / 10^{-2}	31	0	0	0	0	0	0	0	0 _a	0 _a		
	32	0	0	0	0	0	0	0	0 _a	0 _a		
	33	0	0	0	0	0	0	0	0 _a	0 _a		

2-13-54 I saw this tube and it looks like polio virus change.
Very queer! 583

2/14 Tubes used Series 9 of 2/13/54 2.5 large plaques
g growth

February 17, 1954

Cypr 5774 - Intracutaneous

received 45K Lot 2

Dead ten days after inoculation on 2/12/54

on 2/17/54

frozen sections of lumbar & thoracic vertebrae weighing 0.5 gm.
ground in 10% susp. centrifuged supernatant stored A-4-8

Tubes used 31-36 used 14 17 2/9/54
at least one or two areas of good growth

Dil. & Amount	Tube	2/8	2/9	2/10	2/11	2/12	2/13	2/14	2/15
Mat. tested	370	1	2	3	4	5	6	7	8
0.2 ml. 10 ⁻¹	31	0	2	off					
	32	0	1-2	off					
	33	0	1	off					
10 ⁻²	34	0	2	off					
	35	0	1	off					
	36	0	1	off					

Double check
No. & date

Repeat titration 3/1/54

begin 10⁻²
10⁻³
10⁻⁴
10⁻⁵
10⁻⁶

March 2, 1954

Lipnae Cyst 5774

received 4-5K, Lot 2 Intravenously

Died 10th day - bloody diarrhea - 2/13/54

2-17-54 - Material ground + stored A-4-8

Mat. Tested Dil. + Amount	Tube no.	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/10
		1	2	3	4	5	6	7	8
0.2 ml. / 10 ⁻²	121	0	2	4 off					
	123	0	4 off	off					
10 ⁻³	124	0	3 off	off					
	125	0	3 off	off					
10 ⁻⁴	126	0	2-3	4 off					
	127	0	0	0	0	0	0	4 off	Harvested feces 3/10 stored A-4-2
10 ⁻⁵	128	0	0	0	0	0	0	0	
	129	0	0	0	0	0	0	0	
10 ⁻⁶	130	0	0	0	0	0	0	0	
	131	0	0	0	0	0	0	0	

Discard

February 9, 1954

Cyn 5777 Dead

receiving 2.5K Lot 2 Intracutaneous

Dead 6 days after i.cut. injection of $10^{7.2}$ r₅₀
(mucoid diarrhea)

No Polio histologically

Virus Dilution	Tube	2/10	2/11	2/12	2/13	2/14	2/15	2/16	2/17	2/18	2/19
Amount	70	1	2	3	4	5	6	7	8	9	10
0.2 ml / 10^{-1}	34	0	0	0	0	0	0	0	0	0	0
	35	0	0	0	0	0	0	0	0	0	0
	36	0	0	0	0	0	0	0	0	0	0
0.2 ml / 10^{-2}	37	0	0	0	0	0	0	0	0	0	0
	38	0	0	0	0	0	0	0	0	0	0
	39	0	0	0	0	0	0	0	0	0	0

stored A-7

Discard

Discard

2/14 Rechecked Series 9 of 2/5/54 2-5 plaques of growth with diameter of app. $\frac{1}{2}$ to 10 μ .

February 17, 1954

Cypr 5779

received 4-5K Lot 3 Intracutaneously

Dead eleven days after inoculation on 2/14/54

on 2/17/54

frozen sections of lumber + thoracic cord weighing 0.7 gm.
ground into 10% susp centrifuged frozen supernatant in
A-4-8

Substrata Series 14 of 2/19/54

at least one or two areas of good growth

discarded

Dilution & Amount	Tube	2/18	2/19	2/20	2/21	2/22	2/23	2/24	2/25
Treat. Tested	No.	1	2	3	4	5	6	7	8
0.2 ml. /10 ⁻¹	14-37	0	0	0	0	0	0	0	0
	38	0	0	0	0	0	0	0	0
	39	0	0	0	0	0	0	0	0
10 ⁻²	40	0	0	0	0	0	0	0	0
	41	0	0	0	0	0	0	0	0
	42	0	0	0	0	0	0	0	0

February 22, 1954

Page 5781

received 75K Lot 3, Intracutaneously

Found dead 2/21/54

on 2/22/54

sections of lumbar & cervical cord weighing 0.7 gm ground into 10% susp. centrifuged supernatant stored A-4-9

discarded

Dilution & Comment	Tube No.	2/23	2/24	2/25	2/26	2/27	2/28	2/1	2/2
Treat. Tested		1	2	3	4	5	6	7	8
0.2 ml /	20-244	0	0	0	0	0		0	0
/ 10 ⁻¹	14-102	0	0	0	0	0		0	0
	103	0	0	0	0	0		0	0
	104	0	0	0	0	0		0	0
10 ⁻²	105	0	0	0	0	0		0	0
	106	0	0	0	0	0		0	0

March 15, 1954

Exp. 5788

Young (Brown) 7-5K, Lot 3, Anticoagulant

Became sick with generalized tonic convulsions 11 days after
 - Continued with convulsions! Weak but no paralysis
 Killed 13 days. Blood - septicemic?

At 3/15/54 began with fever 39.0, weight 0.8 gm, ground
 1/10 10% sugar in fluid, drops empty, repeat first
 spray A-4-4

Recorded

3/17 3/19 3/20 3/22
 0 100 (50%) → 100% per. →

Prat. Total Value 7D.
 Dil. + Amount

36-1 2 3 4 5 6 7 8
 10-1 4 5 6 7 8

10-2	4	5	6	7	8	9	10	11	12	13	14	15
10-3	7	8	9	10	11	12	13	14	15			
10-4	10	11										
10-5	12	13										
10-6	14	15										

3/21/54 Value at 8:15 AM. Repeating to show depression

February 22, 1954

Opus 5804

received Leon Lot 2 Intracutaneously

Found dead 2/21[?] - 18 days after inoculation

on 2/22/54

sections of lumbar & cervical cord weighing 0.8 gm. ground into
10% susp centrifuges supernatant stored A-4-9

discarded

Dilution & Amount	Tube No.	2/23	2/24	2/25	2/26	2/27	2/28	3/1	3/2
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
0.2 ml. / 10 ⁻¹	14-107	0	0	0	0	0		0	0
	108	0	0	0	0	0		0	0
	109	0	0	0	0	0		0	0
	110	0	0	0	0	0		0	0
10 ⁻²	111	0	0	0	0	0		0	0
	112	0	0	0	0	0		0	0

March 1, 1954

Cyrt. 5815

removed from tissue intra-uterinely

Dead Feb/23/54

On 2/23/54 sections of
 mid lumbar & mid cervical cord ground into
 10% susp. (weight 0.6 gm) in Hank's compl. centrifuged
 supernatant stored A-4-1 discarded

Mat. Tested	Tube	1/2	3/5	3/4	3/5	3/6	3/7	3/8	3/9
Dil. & Amount	770.	1	2	3	4	5	6	7	8
0.2 ml / 10 ⁻¹	26-1	0	0	0	0	0		0	0
	2	0	0	0	0	0		0	0
	3	0	0	0	0	0		0	0
10 ⁻²	4	0	0	0	0	0		0	0
	5	0	0	0	0	0		0	0
	6	0	0	0	0	0		0	0
10 ⁻³	7	0	0	0	0	0		0	0
	8	0	0	0	0	0		0	0
	9	0	0	0	0-3a? Od				
10 ⁻⁴	10	0	0	0	0	0		0	0
	11	0	0	0	0	0		0	0
10 ⁻⁵	12	0	0	0	0-?	0		0	0
	13	0	0	0	0	0		0	0
10 ⁻⁶	14	0	0	0	0	0		0	0
	15	0	0	0	0	0		0	0

Tubes used Series 26 of 2/22/54 1-5 areas of very good growth

March 5, 1954

Cyr. 5819

received from KP-36, Lot 3, Intracutaneously

Found dead on 2/27/54

On 3/4/54

sections of cord, weighing 0.7 gms. ground into 10%
susp. in Hank's conc. centrifuged. Supernatant stored
A-4-5 — discarded

Tubes tested Series 30 of 2/26/54

<u>Mat. Tested</u>	<u>Tube No.</u>	<u>3/6</u>	<u>3/7</u>	<u>3/8</u>	<u>3/9</u>	<u>3/10</u>	<u>3/11</u>	<u>3/12</u>	<u>3/13</u>
<u>Dil. & Comment</u>		1	2	3	4	5	6	7	8
0.2 ml.	30-7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0
10 ⁻¹	9	0	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0
10 ⁻²	12	0	0	0	0	0	0	0	0

February 19, 1954

Cypr. 5829

received Drumhead - Virus K.P. 28 Intracutaneous
by

Paralyzed 5 days after inoculation & killed on the
sixth day.

sections of thoracic and lumbar cord ground into 10%
soup in Hank's compl. centrifuged supernatant
stored A-4-8

Tubes used Series 19 of 2/12/54

Dil & Amount	Tube	2/20	2/21	2/22	2/23	2/24	2/25	2/26	2/27
Mat. Tested	No.	1	2	3	4	5	6	7	8
0.2 ml. / 10 ⁻¹	A-19	0-1	4						
	20	0-?	4 off						
	21	0	off						
10 ⁻²	22	0-1	off						
	23	0-1	off						
	24	0-1	off						
10 ⁻³	25	0	off						
	26	0	2	off					
	27	0	4						
10 ⁻⁴	28	0	2-3	off					
	29	0	0	2	off				
10 ⁻⁵	30	0	2	off					
	31	0	0	3	off	+	harvested 3/2/54 stored A-4-9 discard		
10 ⁻⁶	32	0	0	0	0	0	0	0	
	33	0	0	0	off	+	harvested 3/2/54 stored A-4-9		
3/2/54 Pass 10 ⁻⁵ Dil.	0.2 ml. →	27-13	3/5						
Tube 19-31		27-14	3/5						
									} discard
Pass 10 ⁻⁶ Dil.	0.2 ml.	27-15	4/5						
Tube A-53		27-16	1/5						
									} Harvest & freeze harvested 3/3/54 stored A-41
									Save termin dil

No mixup

February 17, 1954

See 5893 checked by [unclear]

Cyn 5834 Polio histologically P Cyn 5893 Intracutaneous

Cyn 5834 received Brunhild's Enders Chimp Virus KP-26 & found dead eight days after inoculation

Cyn 5893 received GSK, KP 52, Lot 1, was paralyzed 7 days after inoculation & died 8 days after inoculation on 2/10/54

Two tubes cont. thoracic & lumbar cord was found with labels marked cyn 5893 2/10/54 one was bloody & the other not. It was presumed cyn 5834 the unaccounted one to be the tube used. Series 14 of 2/9/54 bloody one for that at least one area of good growth monkey was found

on 2/17/54

0.64 ml frozen sections of lumbar & thoracic cord ground into 10% susp. in Hank's centrifuged supernatant stored A-4-8 made further identification of virus will be made by neutralization test

Dil. Hemount Tube

Mat. Tested	No.	7/8	7/9	7/10	7/11	7/12	7/13	7/14	7/15
		1	2	3	4	5	6	7	8
1.2 ml / 10 ⁻¹	43	0-1	0-1	5H					
	44	0	2	5H					
	45	0-?	0-?	0-?	0	0	0	0	0
	46	0	off						
10 ⁻²	47	0	4 off						
	48	0	3	5H					

titer further 3/2/54

Note - Test on material assumed to be 5893 yielded a Type 2 virus - so assumptions were correct

March 2, 1954

Repeat Cycle 5854

received Dunkide - Enders Chimp Virus K.P. 26 Intraocular
14

Dead 8th day

Dilution	Tube	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/10
Mat. Tested	770.	1	2	2	4	5	6	7	8
0.2ml. / 10 ⁻²	27-132	1	4 off						
	133	0	4 off						
10 ⁻³	134	1	4 off						
	135	0-?	3 off	off					
10 ⁻⁴	136	0	0	off					
	137	0	2	4 off					
10 ⁻⁵	138	0	0	4 off	harvested 3/8/54	stored A-4-2			
	139	0	0	0	0	0	0	0	
10 ⁻⁶	140	0	0	0	0	0	2 off ?	off	
	141	0	0	0	0	0	4 off	harvested 3/9/54	stored A-4-1

10⁶ TC₅₀ / 6m

February 8, 1954

Cypr. 5836

Freezing Drumsticks - Enders Chimp KP26 Intracut.

Partial paralysis of lowers + back - 6 days after intracut.
injection of $10^{6.7}$ TC₅₀ on right forearm

Sections of cervical + lumbar cord weighing 0.5 gm ground
to 10% susp. in Hank's complete centrifuged supernatant
used for inoculum frozen stored A-4-7

Tubes used 8 Series of 2-2-54 with at least one area of
good growth. Some with on 2 areas of good growth

Amount	Dilution	Tube 1	2	3	4	5	6	7	8	9	10
0.2 ml / 10^{-1}		270 7/9	7/10	2/11	7/12	7/13	7/14	7/15	7/16	7/17	7/18
		8-1 1?	40H	1H							
		2 0?	0	0H							
		3 0	0	0	0a	0a	0a	0	0	0	0
		4 0	1	40H							
	10^{-2}	5 0?	2	1H							
		6 0	0?	1H							
		7 0	2	1H							
	10^{-3}	8 0	0	1H							
		9 0	0?	1H							
		10 0	0	1H							
	10^{-4}	11 0	0?	1H							
		12 0	0	0	40H						
	10^{-5}	13 0	0a?	1H							
		14 0	0	3-4	1H						
	10^{-6}	15 0	0	0	0	0	0	0	0	0	0

Discard

probably
Titer $7 \times 10^{-6.5}$ / 0.2 gm. Tissue

$> 10^{7.2}$ TC₅₀/gm

February 17, 1954

Cypr 5841

received Frab. G-5K + Leon Virus mixture
Intracranially

Dead twelve days after inoculation on 2/14/54

Note — no lesions in lumbar + thoracic cord
Focal lesions present in cervical

on 2/17/54

progn. Sections of lumbar + thoracic cord weighing 0.6 gm ground
into 10% susp in Hank centrifuged supernatant stored A-4-8

Substratum. Series 14 of 2/19/54
at least one or two areas of good growth

Dil + Amount	Tube	2/18	2/19	2/20	2/21	2/22	2/23	2/24	2/25
Mat. Tested	No.	1	2	3	4	5	6	7	8
0.2 ml / 10 ⁻¹	14-1	0	0	0	0	0	0a	0a	0a
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
10 ⁻²	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0a	0a	0a

Since only lumbar + thoracic cord was tested
neg. results are not significant

February 19, 1954

Page 5854

received Trak + 75K + Leon intracutaneously
separately

Sick 14th day; died 16th day

apical
sections of thoracic & lumbar cord weighing 0.6 gm
ground into 10% susp in Hanks Compl. centrifuged
supernatant stored A-4-8 — discard

Tubes used: Series 19 of 2/12/54

Virus Dil. + Amount Trak Tested	Tube No.	2/20	2/21	2/22	2/23	2/24	2/25	2/26	2/27
		1	2	3	4	5	6	7	8
8.2 ml / 10 ⁻¹	19-1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
10 ⁻²	6	0	0	0	0	0	0	0	0

February 8, 1954

Cypr. 5857

receiving mixture of Thymus & 5K & Levon tissue I. cut.

sections of cervical & lumbar cord weighing 0.5 gm. ground into 10⁷⁰ pump in Hank's & compl. centrifuged. Supernatant used for inoculum. Remained frozen.

Inoculated Series 8 of 2-2-54 with at least one area of good growth. Some will contain areas of good growth.

Do not throw any of these tubes away. Check with RBS.

Virus Dilution	Tube	7/9	7/10	7/11	7/12	7/13	7/14	7/15	7/16	7/17	7/18
Amount	770	1	2	3	4	5	6	7	8	9	10
0.2 ml / 10 ⁻¹	8-31	0	2	off							
	32	0	1	off							
	33	0	0	2	off						
10 ⁻²	34	0	0	2	off						
	35	0	0	4	off						
	36	0	0	1	off						
10 ⁻³	37	0	0	0	1?	3 off					
	38	0	0	0	0	2	4 off				
	39	0	0	0	4 off	off					
10 ⁻⁴	40	0	0	0	0	0	0	0	0	0	0
	41	0	0	0	0	0	0	0	0	0	0
10 ⁻⁵	42	0	0	0	0	0	0	0	0	0	0
	43	0	0	0	0	0	0	0	0	0	0
10 ⁻⁶	44	0	0	0	0	0	0	0	0	0	0
	45	0	0	0	0	0	0	0	0	0	0

Discard

10^{4.2} TCID₅₀ / gm

For next test 85857

Mix 0.2 g 10⁷⁰ + 0.2 cc I (1:5)
 " " " + " II (1:5)
 " " " + " III (1:5)
 " " " + " I+II+III - special mixture

} 0.1 ml to each of 3 tubes

STANDARD B & P "NOTEAR"

STANDARD B & P "NOTEAR"

February 17, 1954

Cypr. 5859

received 7 Mat. 4 SK & Leon separately Intracutaneous
ly

Dead fourteen days after inoculation on 2/16/54

on 2/17/54

frozen sections of lumbar & thoracic cord weighing 0.7 gm
ground in 10% Susp in Hank's centrifuged supernatant
frozen A-4-8

Injected - Serials H 2/9/54
at least one or two areas of good growth

Discard

Dil. & Amount	Inoc	2/8	2/9	2/10	2/11	2/12	2/13	2/14	2/15
Mat. Tested	No.	1	2	3	4	5	6	7	8
1.2 ml. / 10 ⁻¹	14-13	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0
10 ⁻²	16	0	0	0	0	0	0	0	0
	17	0	0	0	0	0	0	0	0
	18	0	0	0	0	0	0	0	0

February 19, 1954

Cyre 5861

received Mak AP-35 Lot 1 Intracerebrally

Paralyzed five days after inoculation found dead on the sixth day on 2/8/54

on 2/8/54

sections of thoracic lumbar cord weighing 0.5 gm ground into 10% susp in Hank's compl. centrifuged stored A-4-8

Inoculated Series 19 of 2/12/54

Dil + Amount	Tube	2/20	2/21	2/22	2/23	2/24	2/25	2/26	2/27
Mut. Inoc.	No.	1	2	3	4	5	6	7	8
0.2 ml / 10 ⁻¹	79	0-1	off						
	80	0-1	off						
	81	0-1	off						
10 ⁻²	82	2	off						
	83	0-1	off						
	84	0-1	off						
10 ⁻³	85	0	off						
	86	0	off						
	87	0	off						
10 ⁻⁴	88	0	2	off					
	89	0	2	off					
10 ⁻⁵	90	0	2-3	off					
	91	0	0	0	Ja	off			
10 ⁻⁶	92	0	0	0	3	off			
	93	0	0	0	0	0	0	0	0

harvested 3/2/54 stored A-4-89

10^{6.7} / gm

Save Term. dil. tubes

February 19, 1954

Cypr. 5865

received from KP 35, Lot 1, Intracerebrally

Paralyzed six days after inoculation dead eight days after inoculation

sections of thoracic + lumbar cord weighing 1 gm. ground into 10% susp. in Hank's compl. centrifuged supernatant stored A-48

Tubes used Series 19 of 2/12/54

Dil. + Amount	Tube No.	2/20	2/21	2/22	2/23	2/24	2/25	2/26	2/27
Mat. Tested	No.	1	2	3	4	5	6	7	8
1.2 ml. / 10^{-1}	P-94	2	off						
	95	1	off						
	96	0-1	off						
10^{-2}	97	0	off						
	98	0-2	off						
	99	0-1	off						
10^{-3}	100	0	off						
	101	0	4 off						
	102	0	off						
10^{-4}	103	0	4						
	104	0	1-2	off					
10^{-5}	105	0	0	4					
	106	0	0	0	3	off	harvested 3/2/54 stock A-489 from 5 wt		
10^{-6}	107	0	0	0	0	0	0	0	0
	108	0	0	0	0	0	0	0	0

$10^{6.2}$ TC₅₀/Gm

March 2, 1954

Repeat Cyn 5868

received Mak KP-35 Lot 1 Intracranially

Compare with Previous Titration
Dr. Nakai and tell me where
your head was when you
did it?

Dil. Amount	Tubes	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/10
Mat. Tested	770.	1	2	3	4	5	6	7	8
0.2ml / 10 ⁻²	27-142	1-2	4 off						
	143	2	4 off						
	144	0	4 off						
10 ⁻³	26-145	0	4 off						
	146	0	4 off						
10 ⁻⁴	147	0	0-2	4 off					
	148	0	0	0	0-2				
10 ⁻⁵	149	0	0	3	off				
	150	0	0	0	0				
10 ⁻⁶	151	0	0	0	0				
						0	0	0	
						0	0d?	0d?	

off harvested 3/8/54 stored A-4-2

discard

10^{6.2} TCID₅₀/Gm

February 19, 1954

Cypr 5565

received from KP-35, Lot 1, Intracranially

Paralyzed five days after inoculation killed same day

Thoracic & lumbar cord weighing 2.9 gm ground into 10% susp in Hank's comp. centrifuged supernatant stored A-4-8 sectioned

Tube used Series 19 of 2/12/54

Dil + Amount	Tube No.	7/0	7/1	7/2	7/3	7/4	7/5	7/6	7/7
		1	2	3	4	5	6	7	8
1.7 ml / 10 ⁻¹	109	0	2	off					
	110	0	1-2	off					
	111	0	2-3	off					
10 ⁻²	112	0	0	0	0	0	0	0	0
	113	0	0	0	0	0	0	0	0
	114	0	0	0	0	0	0	0	0
10 ⁻³	115	0	0	0	0	0	0	0	0
	116	0	0	0	0	0	0	0	0
	117	0	0	0	0	0	0	0	0
10 ⁻⁴	118	0	0	0	0	0	0	0	0
	119	0	0	0	0	0	0	0	0
10 ⁻⁵	120	0	0	0	0	0	0	0	0
	121	0	0	0	0	0	0	0	0
10 ⁻⁶	122	0	0	0	0	0	0	0	0
	123	0	0	0	0	0	0	0	0

very strange

Has this been repeated?

Repeated 3/2/54

February 22, 1954

Cypr. 5879

received Frank HP-35 Lot 2

Intracerebrally

Paralyzed five days after inoculation; killed same day
on 2/27/54

on 2/22/54

Frozen sections of mid lumbar & mid thoracic cord weighing
1 gm ground into 10% susp. centrifuged supernatant
Stored A-4-9

Dilution & Amount	Inoc. No.	2/23	2/24	2/25	2/26	2/27	2/28	3/1	3/2
Mat. Tested		1	2	3	4	5	6	7	8
0.2 ml. / 10 ⁻¹	14-113	1	2	resid	resid	resid		resid	resid
	114	1	1-2	resid	resid	resid		resid	resid
	15-115	1	1	resid	resid	resid		resid	resid
10 ⁻²	116	2	off						
	117	0-1	3	off					
	16-118	off	off	off					
10 ⁻³	119	0	4 off						
	120	0	4 off						
	121	0	2	off					
10 ⁻⁴	19-122	0a	0a	off					
	123	0a	4 off						
10 ⁻⁵	124	0	0	0	2	off			
	125	0a	0a	0a	0a	0a		0a	0a
10 ⁻⁶	126	0	4 off						
	16-127	0a	0a	0a	0a	0a		0a	0a

} zone

10^{-5.5} per 0.2 ml
10^{6.2} TCID₅₀ / gm

February 22, 1954

Cyp. 5881

Received Frank KP 35 Lot 3 intracerebrally

Paralyzed eight days after inoculation dead nine days after inoculation on 2/11/54

On 2/22/54

frozen sections of mid lumbar & mid thoracic cord weighing 1 gm. ground into 10% susp. centrifuged supernatant stored A-4-9

Treat Tested Dil & Amount	Tube No.	2/23	2/24	2/25	2/26	2/27	2/28	2/29	2/30
		1	2	3	4	5	6	7	8
0.2 ml / 10^{-1}	128	0	2	acid	acid	acid		acid	acid
	129	0-1	2-4	acid	acid	acid		acid	acid
	130	0-?	1-2	acid	acid	acid		acid	acid
10^{-2}	131	0-?	4-8						
	132	0-1	4-8						
	133	1	4-8						
10^{-3}	134	0	5-12?						
	135	0	4-8						
	136	0	4-8						
10^{-4}	137	0	0	4					
	138	0-1	4-8						
10^{-5}	139	0	0	0	0	4-8			
	140	0	0	0	0	0		0	0
10^{-6}	141	0	0	0	0	0		0	0
	142	0	2	0%					

} zone

$10^{-5.5}$ / 0.2 ml
 $10^{-6.2}$ TCD₅₀ / gm

February 22, 1954

Cyp. 5891

received 27.5K KP 53 Lot 1 *intracerebrally*

Paralyzed eleven days after inoculation; killed same day
on 2/13/54

on 2/22/54

frozen sections of mid lumbar & mid thoracic cord weighing
0.3 gm. ground into 10% susp. centrifuged stored A-4-9

Dilution & Amount	Tube	2/23	2/24	2/25	2/26	2/27	2/28	2/29	2/30
Treat. Tested		1	2	3	4	5	6	7	8
22 ml. / 10 ⁻¹	143	0-1d	0-1H	off					
	144	1-2	resid	resid	resid	resid		resid	resid
	145	0d	0d	0d	0d	0d		0d?	0d
10 ⁻²	146	off	off						
	147	2-3	off						
	148	1	off						
10 ⁻³	149	0-1	off						
	150	0-1	off						
	151	0	off						
10 ⁻⁴	152	0	0d	2	off				
	153	0d	0d	0d	0d	0d	0d	0d	0d
10 ⁻⁵	154	0	0	0	0	0		0	0
	155	0	3	off					
10 ⁻⁶	156	0	0d	0d	d				
	157	0d	0d	0d	d				

February 22, 1954

Open 5893

? ~~By 5834~~

received by SK KP-53 Lot 1

Intracerebrally

Paralyzed seven days after inoculation; killed eight days after inoculation. on 2/10/54

on 2/22/54

progen sections of mid lumbar & mid thoracic cord weighing 0.7 gm. ground into 10% susp. centrifuged supernatant stored A-4-1

Dil. & Amount	Tube	2/23	2/24	2/25	2/26	2/27	2/28	3/1	3/2
Prot. Tested	770.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
0.2 ml / 10 ⁻¹	157-158	1	OH						
	159	1	OH						
	160	1	OH						
	161	0-1	OH						
10 ⁻²	162	0-1	OH						
	163	1-2	OH						
	164	0	2	OH					
10 ⁻³	165	0	2	OH					
	166	0	OH						
	167	0	2	OH					
10 ⁻⁴	168	0	0	2	OH				
	169	0	0	0-1	OH				
10 ⁻⁵	170	0	0	0	0	0	0	0	
	171	0	0	0	0	0	0	0	
10 ⁻⁶	172	0	0	0	4OH				

harvested 3/2/54 stored A-4-87
Harvest + do neutral test

See over for neut. test

March 2, 1954

Identification of Type of Polio Virus

Isolated from Cyn. 5893 receiving 45K KP-53 Lot 1

Purpose: Due to fact that specimen labeled Cyn 5893 may have been Cyn. 5834 which had received ~~45K KP~~ Brunhild. Enders Chimp Virus KP-26 below identification of Virus Type is attempted.

Virus used: 10^{-6} Dilution tube - terminal dilution - of titration of Cyn. 5893 ~~in~~ in Cyn. Kid. Tissue 1:5 dil. used
1:10 final

Antiserum used: Standard Typing Serum from NFP against Types I, II + III Polio Virus 1:5 dil. used
1:10 final

Procedure: 0.4 ml. 1:5 dil virus incubated 1 hr. at room temperature with 0.4 ml. of 1:5 dil. of antiserum

<u>Mat. Tested</u>	<u>Tubes used</u>	<u>3/3</u>	<u>3/4</u>	<u>3/5</u>	<u>3/6</u>	<u>3/7</u>	<u>3/8</u>	<u>3/9</u>	<u>3/10</u>
		1	2	3	4	5	6	7	8
Cyn. 5893	76	4							
plus Hanks	77	4							
	78	4							
Cyn. 5893	79	2-3	4						
plus Type I	80	4							
	81	4							
Cyn. 5893	82	0	0	0	0		0	0	0
plus Type II	83	0	0	0	0		0	0	0
	84	0	0	0	0		0	0	0
Cyn. 5893	85	4							
plus Type III	86	4							
	87	4							

discard

March 1, 1954

Cypr. 5898

KPS3, lot 1

received 4.5K Virus ^{left lower} Intrauretrally

Partial paralysis 2/16/54 killed 2/16/54 - 14 days
After inoculation

On 2/23/54 sections of mid-lumbar & mid-cervical
cord weighing 0.8 gm ground into 10% susp. in
Hanks' supernatant stored after centrifugation
stored in A-4-1

Tubes used Series 26 of 2/22/54 1-5 areas of very
good growth

Mat. Tested

Dilution &
Amount

Tube
No.

1/2 2/3 3/4 3/5 3/6 3/7 3/8 3/9

0.2 ml. /
10⁻¹

26-31
32
33

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

10⁻²

34
35
36

0 0 2 4
0 0 0 0 0
0 0 0 0 0

40% harvested 3/8/54 stored
A-4-2

10⁻³

37
38
39

0 0 0 0 0
0 0 0 0 0
0 0 0 0 0

10⁻⁴

40
41

0 0 0 0 0
0 0 0 0 0

10⁻⁵

42
43

0 0 0 0 0
0 0 0 0 0

10⁻⁶

44
45

0 0 0 0 0
0 0 0 0 0

February 9, 1954

Cyto. 5900

receiving of 5K Lot 2 Intracerebrally

Paralysis of uppers, partial of lowers 7 days after intracerebral injection of $10^{6.8}$ TCD₅₀.

stored A-4-7

Tissue Dilution	Tube	3/10	3/11	3/12	3/13	3/14	3/15	3/16	3/17	3/18	3/19
Amount	700	1	2	3	4	5	6	7	8	9	10
0.2 ml / 10^{-1}	40	0	0	0-2	0	0-2	0-2	0-2	0a	0d	0d
	41	0	0	0-1	0-1	0	0-2	0	0a	0d	0d
	42	0	0	0-1	0-1	0-2	0	0	0a	0	0
	43	0	0-1	off							
10^{-2}	44	0	0-1	2	2-3	resid		resid	resid	resid	resid
	45	0	0-1	3	off						
	46	0	2-3	off							
10^{-3}	47	0	0-1	4	off						
	48	0	2	off							
	49	0	0	2	4	off					
10^{-4}	50	0	0	0	3-4	off					
	51	0	0	0	0	0	0	0	0	0	0
10^{-5}	52	0	0	1	4	off	stored A-4-8	3/19			
	53	0	0	0	0	0	0	0	0	0	0
10^{-6}	54	0	0	0	0	0	0	0	0	0	0

Discard

Harvest & freeze

2.14 Tubes used Series 9 of 2/3/54 of about 1/2 cm. in diameter

2-5 plaques with growth

Then $10^{-5.0}$ / 0.2 ml.

$10^{5.7}$ TCD₅₀ / gm. Tissue

February 27, 1954³

Cypr. 5905

received 2g-5K KP-53 Lot 2 Intracerebrally

Paralyzed four or five days after inoculation; killed same day
2/16/54

on 2/22/54

frozen sections of lumbar & cervical cord weighing 1 gm
ground into 10% susp centrifuged supernatant stored
A-4-9

Subseries Series 20 of 2/15/54

Dil. & Amount	Tube No.	2/22	2/24	2/25	2/26	2/27	2/28	3/1	3/2	3/3
0.2 ml / 10 ⁻¹	20-233	0	0	0-1	2	off	off			
	234	0-?	off							
	235	0	1	off						
10 ⁻²	236	0-1	off							
	237	0	off							
	238	0	2	off						
10 ⁻³	239	0	0	4 off						
	240	0	0	0	0		0	0	0	
	241	0	0	0	0		0	0	0	
10 ⁻⁴	242	0	od	od	Od		Od	Od	Od	
	243	0	0	0	0		0	0	0	
10 ⁻⁵	244	0	0	0	0		0	0	0	
	245	0	0	0	0		0	0	0	
10 ⁻⁶	246	0	0	0	0		0	0	0	
	247	0	0	0	0		0	0	0	

February 21³, 1954Agar 5906

received 275K KP 53 Lot 2

IntracerebrallySpastic six days after inoculation; killed same day
on 2/8/54

on 2/22/54

frozen sections of mid lumbar & mid thoracic cord
weighing 0.5 gm. ground into 10% susp. centrifuged
supernatant stored A-4-9

Dilution & Amount	Tube No.	2/22	2/24	2/25	2/26	2/27	2/28	3/1	3/2	3/3
1.2 ml	20-218	2	4 off	2	4	5	6	7	8	8
10 ⁻¹	219	2	4 off							
	220									
	221	2	off							
10 ⁻²	222	2	off							
	223	2	off							
	224	0	2	off						
10 ⁻³	225	0-1	off							
	226	0	0	0						
	227	0	0-1	4 off						
10 ⁻⁴	228	0	0	0	0		0	0	4	
	229	0	0	0	0		0	0	0	
10 ⁻⁵	230	0	0	0	0		0	0	0	
	231	0	0	0	0		0	0	0	
10 ⁻⁶	232	0	0	0	0		0	0	0	

Tubes used - Series 20 of 2/15/54

February 2³, 1954

Oye 5909

received G-5K + P-53 Lot 2 Intracerebrally

Paralyzed four days after inoculation; killed same day
on 2/16/54

on 2/22/54

frozen sections of lumbar & cervical cord weighing 0.8 gm
ground into 10% susp. centrifuged supernatant stored
A-4-9

Substituted since 20 of 2/15/54 at least 2 areas of good
growth

Dil. Amount	Tube No.	2/22	2/24	2/25	2/26	2/27	2/28	3/1	3/2
0.2 ml / 10 ⁻¹	20-203	0	0	0	0		0-1	mid	off
	204	0	0	2	off				
	205	0-?	2	4 off					
	206	0	0	0	0		0	0	0
10 ⁻²	207	0	0-1	0-1	0		0	0	0
	208	0	0	0	0		0	0	0
	209	0	0	0	0		0	0	0
10 ⁻³	210	0	0	0	0		0	0	0
	211	0	4 off	harvested 3/2/54 stored A-4-9					0
	212	0	0	0	0		0	0	0
10 ⁻⁴	213	0	0	0	0		0	0	0
	214	0	0	0	0		0	0	0
10 ⁻⁵	215	0	0	0	0		0	0	0
	216	0	0	0	0		0	0	0
10 ⁻⁶	217	0	0	0	0		0	0	0

Harvest, passage + freeze

3/2/54*

Pass 10⁻³ Dil 20-211 0.2 ml → 27-20 27-19 } discard

March 1, 1954

Cypr 3909 — This was done 2nd time by mistake. First titer

received 9.5K times ^{KPS, Lot 2} Intracerebrally $10^{-1.5}$ / 0.2 ml

Partial paralysis 2/16/54 Killed 2/16/54

On 2/22/54 sections of mid cervical + mid lumbar cord weighing 0.8 gm. ground into 10% susp. centrifuged supernatant stored

Tubes tested Series 26 of 2/22/54 1 to 5 areas of good growth

Mat. Tested	Tube No.	3/2	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/10	3/11	discard
Dil + Amount		1	2	3	4	5	6	7	8	9	10	
0.2 ml. / 10^{-1}	26-16	0	3	4 off	off							
	17	0	0	0	0	0		0	0	0	0	
	18	0	0	0	0	0		0	0	0	0	
10^{-2}	19	0	0	0	0	0		0	0	0	0	
	20	0	0	0	4 off	harvested 3/8/54				stored A-4-2		
	21	0	0	0	0	0		0	0	0	0	
10^{-3}	22	0	0	0	0	0		0	0	0	0	
	23	0	0	0	0	0		0	0	0	0	
	24	0	0	0	0	0		0	0	0	0	
10^{-4}	25	0	0	0	0	0		0	0	0	0	
	26	0	0	0	0	0		0	0	0	0	
10^{-5}	27	0	0	0	0	0		0	0	0	0	
	28	0	0	0	0	0		0	0	0	0	
10^{-6}	29	0	0	0	0	0		0	0	0	0	
	30	0	0	0	0	0		0	0	0	0	

February 9, 1954

Orgo. 5911

(KP53)

receiving 27-5K Tot 3 Intracranially

Sick, & weak since 3 days after icer. injection of $10^{6.3}$ TCID₅₀

Dead 7 days — no paralysis

No Polio histologically

Virus Dilution	Tube No.	Tube										Discard
		7/10	7/11	7/12	7/13	7/14	7/15	7/16	7/17	7/18	7/19	
0.2 ml / 10^{-1}	9-55	0	0	0	0	0		0	0	0	0	Discard
	56	0	0	0	0	0		0	0	0	0	
	57	0	0	0	0	0		0	0	0	0	
10^{-2}	58	0	0	0	0	0		0	0	0	0	
	59	0	0	0	0	0		0	0	0	0	
	60	0	0	0	0	0		0	0	0	0	
10^{-3}	61	0	0	0	0	0		0	0	0	0	
	62	0	0	0	0	0		0	0	0	0	
	63	0	0	0	0	0		0	0	0	0	
10^{-4}	7-64	0	0d	sd	d	d		d	d			
	65	0	0d	sd	0d	d		d	d			
10^{-5}	66	0	0d	sd	0d	d		d	d			
	67	0	0d	sd	0d	0d	0d	0d	0d	0d	0d	
10^{-6}	68	0	0d	sd	0d	0d		0d	0d	0d	0d	
	69	0	0d	sd	0	0		0	0	0d	0d	

Series 7 of 2-1 the growth seems somewhat stunted
 2/14 Series 9 of 2/3/54 four to five exceedingly large plaques of kidney epithelial cells ca. 1/2 to 1 cm in diameter

February 28, 1954

Spec. 5912

revised 75K KP53 Lot 3

Intracerebrally

Hemiparesis ten days after inoculation; killed same day
on 2/12/54

on 2/22/54

Proxim sections of mid lumbar & mid thoracic cord
weighing 0.8 gm. ground into 10% susp. centrifuged
supernatant stored A-4-9

Dil. & Amount	Tube No.	2/23	2/24	2/25	2/26	2/27	2/28	3/1	3/2	3/3
		1	2	3	4	5	6	7	8	9
0.2 ml. / 10 ⁻¹	20-188	3	4 off							
	189	2	4 off							
	190	0-1	4 off							
	191	1	4 off							
10 ⁻²	192	0-1	4 off							
	193	0d	all off							
	194	0	4 off							
10 ⁻³	195	0	4							
	196	C?	4							
	197	0	0	0	0		3/1	3/2	3/3	
10 ⁻⁴	198	0	0	0	0		0	0	0	
	199	cont.								
10 ⁻⁵	200	0	0	0	0		0	0	0	
	201	0	0	0	0		0	0	0	
10 ⁻⁶	202	0	0	0	0		0	0	0	

Tubes used Series 20 of 2/15/54
at least two areas of good growth

March 5, 1954

Cyrt. 5916received 2-SK KP-53 Lot 3, Intracerebrally

Killed 2/27/54 - Pan 25 days after inoculation

DTC 2/4/54

sections of cord weighing 0.9 gm. ground into 10% susp.
in Hank's comp. centrifuged supernatant stored A-4-5

Tubes used Series 30 of 2/26/54

<u>Mat. Tested</u>	<u>Tubes</u>	<u>3/6</u>	<u>3/7</u>	<u>3/8</u>	<u>3/9</u>	<u>3/10</u>	<u>3/11</u>	<u>3/12</u>	<u>3/13</u>
<u>Dil. Vermont</u>	<u>770.</u>	1	2	3	4	5	6	7	8
0.2 ml. /10 ⁻¹	30-19	0-2	1H						
	20	0	2H						
	21	0-2	1H						
10 ⁻²	22	0-1	1H	1H					
	23	0	1H						
	24	2	1H						
10 ⁻³	25	0	2	1H					
	26	0	4						
	27	0	4						
10 ⁻⁴	28	0	2	1H					
	29	0	2	1H					
10 ⁻⁵	30	0	2	1H					
	31	0	0	3-4H	harvested 3/8/54 stored A-4-2				
10 ⁻⁶	32	0	0	0	0	0	0	0	0
	33	0	0	0	0	0	0	0	0

10 5.5 / 0.2 ml

10 6.2 TC 1000 / 5 gm.

February 10, 1954

Cypr 5921 - Leon, KP 36, ^(Lot 1) Dev.

8 days after intracerebral injection of 10^6 TCID₅₀ was prostrate with convulsions & salivation but no paralysis

No Polio histologically

10% susp. of cervic. & lumbar cord in Hank's complete
2.6 gm in weight

Tubes used Series # 172-5-54
2-5 areas of good growth showing
2/14/54 some stage of framy degeneration stored A-4-7

BAP-000
2 col 9/

Virus Dilution	Tube No.	7/1	7/2	7/3	7/4	7/5	7/6	7/7	7/8	7/9	7/10	
0.2 ml / 10^{-1}	1	0	0	0		0	0	0	0	0	0	Discard
	2	0	0	0		0	0	0	0	0	0	
	3	0	0	0		0	0	0	0	0	0	
	4	0	0	0		0	0	0	0	0	0	
10^{-2}	5	0	0	0		0	0	0	0	0	0	
	6	0	0	0		0	0	0	0	0	0	
	7	0	0	0		0	0	0	0	0	0	
10^{-3}	8	0	0	0		0	0	0	0	0	0	
	9	0	0	0		0	0	0	0	0	0	
	10	0	0	0		0	0	0	0	0	0	
10^{-4}	11	0	0	0		0	0	0	0	0	0	
	12	0	0	0		0	0	0	0	0	0	
10^{-5}	13	0	0	0		0	0	0	0	0	0	
	14	0	0	0		0	0	0	0	0	0	
10^{-6}	15	0	0	0		0	0	0	0	0	0	

March 1, 1954

Cypr. 5924

received Leon Thrus Intrauterally

18 days
Paralyzed 2/20/54 Killed same day

On 2/24/54 sections of mid lumbar & mid cervical
and weighing 0.5 gm. ground into 10% susp. centrifuged
supernatant stored A-4-1

Mat. Tested	Tube No.	3/2	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/10	3/11	Discard
Dil. Amount		1	2	3	4	5	6	7	8	9	10	
0.2 ml / 10 ⁻¹	26-61	0	0	0	0	0		0	0	0	0	
	62	0	0	0	0	0		0	0	0	0	
	63	0	0	0	0	0		3-4 off discoid		mid	mid	
10 ⁻²	64	0	0	0	0	0		1-2	1-2	1-2 off discoid	pl. "	Passage*
	65	0	0	0	0	0		0	0	0	0	
	66	0	0	0	0	0		0	0	0	0-?	
10 ⁻³	67	0	0	0	0	0		0	0	0	0	
	68	0	0	0	0	0		0	0	0	0	
	69	0	0	0	0	0		0	0	0	0	
10 ⁻⁴	70	0	0	0	0	0		0	0	0	0	
	71	0	0	0	0	0		0	0	0	0	
10 ⁻⁵	72	0	0	0	0	0		0	0	0	0	
	73	0	0	0	0	0		0	0	0	0	
10 ⁻⁶	74	0	0	0	0	0		0	0	0	0	
	75	0	0	0	0	0		0	0	0	0	

Tubes used Series 26 of 2/22/54 1-5 areas of good growth

3/11/54

Passage Tube 26-64
0.2 ml. undil

Tube No. 3/2 3/3 3/4 3/5 3/6
33-A 0-? 1 1/4 1/4
33-B 0-? 1 1/4 1/4

} Harvest + freeze

A-4-2
3/16/54

February 19, 1954

Case 5925

received from P-36 Lot 1 Intracranial

Found dying 17th day; Focal lesions in only 4 kinds of cervical cord - some in medulla - death not due to polio

10% susp^{er} of sections of thoracic & lumbar cord weighing 0.8 gm. centrifuged supernatant stored A-4-8

Substrated: Series 19 of 2/12/54

Dil. Amount	Tube	2/20	2/21	2/22	2/23	2/24	2/25	2/26	2/27
10 ⁻¹ Dil	19-13	0	0	0	0	0	0	0	0
10 ⁻¹ Dil	14	0	0	0	0	0	0-1 mid	0	0
10 ⁻¹ Dil	15	0	0	0	0	0	0	0	0
10 ⁻² Dil	16	0	0	0	0	0	0	0	0
10 ⁻² Dil	17	0	0	0	0	0	0	0	0
10 ⁻² Dil	18	0	0	0	0	0	0	0	0

Passage

3/2/54 * Pass 10⁻¹ Dil 0.2 ml → 27-17 4/27
 Tube 19-14 18-2 7/7 } Harvest 3/4
 + 7/7 } + freeze stored A-4-1

February 19, 1954

Cyto. 5926

received Leon & P-36, Lot 1, Intracerebrally

Paralyzed thirteen days after inoculation; killed same day

sections of thoracic & lumbar cord weighing 0.7 gm ground into 10% susp. centrifuged supernatant stored A-4-B

Inoculated Series 19 of 2/12/54

Dil. & Amount	Tube No.	2/10	2/11	2/12	2/13	2/14	2/15	2/16	2/17	2/19	3/1	3/2	3/3
0.2 ml. / 10 ⁻¹	19-49	0	0	0	0d	0-1	0-1	0-1	resid		resid	resid	resid
	50	0	0	0	0d	0d	0d	0d	0d		0d	0-?	0-?
	51	0	0	0	0d	0d	0d	0d	0d		0d?	0d?	0d?
	52	0	0-?	0-1	d	2d	resid	resid	resid		resid	resid	resid
10 ⁻²	53	0	0	0	0d	0	0	0	1-2		resid	resid	resid
	54	0	0	0	0-2	2-3	3	3	resid		resid	resid	resid
	55	0	0	0	0d	0d	0d	0	0		0	0	0
10 ⁻³	56	0	0	0	0	2	4	off			x		
	57	0	0	0	0-?d	1	0-2	2	2-3		resid	resid	off
	58	0	0	0	0d	0d	0d	0	0		0	0	0
10 ⁻⁴	59	0	0	0	0d	0d	0d	0	0		0	0	0
	60	0	0	0	0d	2	d						
10 ⁻⁵	61	0	0	0	0	0	0	0	0		0	0	0
	62	0	0	0	0	0d?	0	0	0		0	0	0
10 ⁻⁶	63	0	0	0	0	0	0	0	0		0	0	0

3/2/54 * Pass 10⁻³ Dil. Tube No. 19-57
 0.2 ml. of undil. 27-9
 27-10
 3/3 3/4
 2 off
 4 off - Harvest + freeze 3/3 stored A-4-1

Note - Residual means that degenerated cells have fallen off but a good deal of growth remains

February 19, 1954

Copy 5933

received from KP-36, Lot 2, Intracerebrally

Paralyzed 14 days after inoculation; killed same day

Sections of cervical & lumbar cord weighing 0.8 gm. ground into 10% susp in Hank's comp. centrifuged supernatant stored A48

Inoculated: Series 19 2/2/54

Dil. Amount	Tube No.	7/20	7/21	7/22	7/23	7/24	7/25	7/26	7/27	7/28	7/31	7/2	7/3
0.2 ml / 10 ⁻¹	19-64	0	0	0	1-2	2	2	2	2	2	2	2	2
	65	0	0	0	0	0	0	0	0-?		resid	"	"
	66	0	0-1	0-1	0-1	2	2-3	off	resid	resid	resid	"	"
	67	0	0-1	0-1	1-2	2	2-3	resid	resid		resid	"	"
	68	0	0	0	2	2	off	1-2	resid	off			
	69	0	0	0	0-1	2	2	resid	resid		resid	"	"
	70	0	0	0	0-1	0-1	0-1	0-1	0-1				
	71	0	0	0	0-1	2	2-3	3	resid	resid	resid	resid	"
	72	0	0	0	0	0	0	0	0	2	resid	"	"
	73	0	0-1	0-1	2	off	off						
	74	0	0	0	0	0	0	0	0		0	0	0
	75	0	0	0	0	0	0	0	0		0	0	0
	76	0	0	0	0	0	0	0-1	0-1		0-1	0-1	0-1
	77	0	0	0	0	0	0	0	0		0	0	0
	78	0	0	0	0	0	0	0	0		0	0	0

2/2/54 Tubes 11-66, 67 & 72 shows what looks like a beginning typical virus cytopathogenic effect but it is extremely hard to comprehend why this change has not progressed since yesterday

3/2/54 Passage 0.2 ml → tube 19-72 → 27-7 0 0-1 resid off
 27-8 0 1 sl. resid off
 Harvest & freeze 3/8/54

March 5, 1954

Org. 5935

Received Leon KP-36, Lot 2 Intracerebrally

Paralyzed 29 days after inoculation

On 3/4/54

sections of cord weighing 2.7 gm. ground into 10% susp.
centrifuged supernatant stored A-4-5

Tubes Tread Series 30 of 2/26/54

<u>Met. Tested</u>	<u>Tube</u>	<u>3/6</u>	<u>3/7</u>	<u>3/8</u>	<u>3/9</u>	<u>3/10</u>	<u>3/11</u>	<u>3/12</u>	<u>3/13</u>	<u>3/14</u>	<u>3/16</u>	<u>discs</u>
<u>Dil. & Amount</u>	<u>770.</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>		<u>11</u>	
0.2 ml. / 10 ⁻¹	30-35	0	0-?	0-1	2	2	2	2	2	2		
	36	0	2	2	2	2	2	2	2	2		2 large areas good
	37	0	2	2	2	2	2	2	2	2		3 good areas
10 ⁻²	38	0	2	4								
	39	0	0	1	1-2	2	2	2	2	2		2 good areas
	40	0	0	1	2	2	2	2	2	2		1 " "
10 ⁻³	41	0	0	0	2	2	2	2	2	2		1 good area
	42	0	0	2	3-4	2	2	2	2	2		2 small areas
	43	0	0	0	0	0	0	0	0	0		0?
10 ⁻⁴	44	0	0	0	0	0	0	0	0	0		0
	45	0	0	0	0	0	0	0	0	0		0
10 ⁻⁵	46	0	0	0	0	0	0	0	0	0		0
	47	0	0	0	0	0	0	0	0	0		0
10 ⁻⁶	48	0	0	0	0	0	0	0	0	0		0
	49	0	0	0	0	0	0	0	0	0		0

3/9/54

Tube 30-35 impression from stereoring implant that shows some rounding up of cells that virus change has occurred, within tube

February 26, 1954

Cypr. 5937

Leon, KP36, Lot 2, Intracerebrally

Paralyzed 24 days after inoculation

Tubes tested Series 24 of 2/19/54 + Series 25 of 2/20/54 both wild
 from 7-5 areas of good ground

strud A-4-9

Dil. + Amount Mat. Tested	Tube No.	2/27	2/28	3/1	3/2	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/9
		1	2	3	4	5	6	7	8	9	10	11	12
0.2 ml. / 10 ⁻¹	24-100	0		2	acid	acid	acid	acid	acid	acid	acid	acid	4 off
	101	0		2	acid	acid	acid	acid	acid	acid	acid	acid	st. acid
	102	0		0-2	2	acid	acid	acid	acid	acid	acid	acid	off - Pass
10 ⁻²	103	0		0	0	0	2	2-3	acid				acid 4 off
	104	0		0	0	0	0	1-2	3				Pass
	105	0		0	0	0	0	0	0				st. acid
10 ⁻³	106	0		0	0	0	0	0	0			0	0
	107	0		0	0	0	0	0	0			0	0
	108	0		0	0	0	0	0	0			0	0
10 ⁻⁴	25-109	0		0	0	0	0	0	0			0	0
	110	0		0	0	0	0	0	0			0	0
10 ⁻⁵	111	0		0	0	0	0	0	0			0	0
	112	dash.											
10 ⁻⁶	113	0		0	0	0	0	0	0			0	0
	114	0		0	0	0	0	0	0			0	0

3/8/54 x

Tube No.	3/9	3/10	3/11	3/12
Pass Tube 24-102 0.2 ml. undil.	31-A	0	1-2 off	off
	B	0	0-2	2 off

Pass Tube 24-104
0.2 ml. undil.

Tube No.	3/9	3/10	3/11	3/12
31-C	0-2	4 off		
D	1	4 off		

Harvest + freeze
3/10/54 strud A-2-2

February 17, 1954

Opn 5939

Intracerebral

received Leon & P 36, Tot 2

Dead eight days after inoculation 2/10/54

Focal polio histologically - death not due to polio

2/2/17/54

frozen sections of lumbar & thoracic cord weighing 0.8 gm
ground into 10% susp in Hank's centrifuged supernatant
stored A-4-8

Inoculated Series 15 of 2/10/54
2-5 areas of good growth

Dilution	Tube No.	3/18	3/19	3/20	3/21	3/22	3/23	3/24	3/25
0.2 ml / 10 ⁻¹	15-9	0	2	off					
	10	0	0	2	4				
	11	0	0	0	3	off			
	12	0	0	2	4 off				
	13	0	0	0	2-3	off			
10 ⁻²	14	0	0	2	4 off				

Discard

Retiter

See over

Repeat titration on reverse side

10⁻³ per 0.2 ml
10^{3.7} / Gm

February 8, 1954

Pyrus 5940

Receiving from R.P. 36 Totals Ser.

Died 4 days after i.cer. injection of $10^{-5.8}$ rd_{50} - no paralysis

Focal neuronophagia - several levels of cervical & lumbar cord

frozen section of cervical & lumbar cord thawed
found to be weighing 0.6 gm ground into 80% comp.
in Hanks comp. centrifuged supernatant used
for inoculum remainder frozen A-4-7

Tested serial series of 2-2-54 with at least measure of good
growth some with ca. 3 areas of good growth

Viruses Dilution & Inoculum	Tube	7/9	7/10	7/11	7/12	7/13	7/14	7/15	7/16	7/17	7/18
	7/9	1	2	3	4	5	6	7	8	9	10
	8-16	0	0	0-1	3-4	off					
	17	0	0	2	off						
	18	0	0	0-1	4 off						
	19	0	0	0	0	0	0	0	0	0	0
10^{-2}	20	0	0	0	0	0	0	0	0	0	2
	21	0	0	0	0	0	0	off			
	22	0	0	0	0	0	0	0	0	0	0
10^{-3}	23	0	0	0	0	0	0	0	0	0	0
	24	0	0	0	0	0	0	0	0	0	0
	25	0	0a	0	0	0	0	0	0	0	0
10^{-4}	26	0	0	0	0	0	0	0	0	0	0
	27	0	0	0	0	0	0	0	0	0	0
10^{-5}	28	0	0	0	0a	0	0	0	0	0	0
	29	0	0	0	0	0	0	0	0	0	0
10^{-6}	30	0	0	0	0	0	0	0	0	0	0

Dissolved

February 23, 1954

Cyrt. 5954

received Bruchiede Virus KP28 Intracerebrally

Prostrate

~~Prostrate~~ four days after inoculation; dead on the sixth day after inoculation on 2/7/54

Spinal cord - no lesions

Focal lesions in medulla

On 2/22/54

frozen sections of mid-lumbar & mid-thoracic cord weighing 1 gm. ground into 10⁷⁰ amp. in Hank's compl. centrifuged supernatant stored A-4-9

discard

Dilution & Am.	Tube No.	2/4	2/5	2/6	2/7	2/8	3/1	3/2	3/3
amt. tested	No.	1	2	3	4	5	6	7	8
0.2 ml. /10 ⁻¹	15-263	0	0	0	0		0	0	0
	264	0	0	0	0		0	0	0
	265	0	0	0	0		0	0	0
10 ⁻²	20-266	0	0	0	0 _d		d	d	d
	267	0	0	0	0		0	0	0
	15-268	0	0	0	0		0	0	0
10 ⁻³	20-269	0	0	0	0		0	0	0
	270	0	0	0	0		0	0	0
	271	0	0	0	0		0	0	0
10 ⁻⁴	22-272	0	0	0 _d	0 _d		d	d	d
	20-273	0	0	0	0		0	0	0
10 ⁻⁵	274	0	0	0	0		0	0	0
	275	0	0	0	0		0	0	0
10 ⁻⁶	21-276	0	0 _d	d					
	20-277	0	0	0	0		0	0	0

February 10, 1954

Exp. 5957 - Brunhilde KP28 Icer.

Prostrate + spastic - clinically unlike polio - 7 days after
i.cer. injection of $10^{6.3} \text{TCID}_{50}$ of virus

No lesions in spinal cord
Focal lesions in medulla

Tissue Dilution Amount	Tube No.	stored A-4-7								
		7/11	7/12	7/13	7/14	7/15	7/16	7/17	7/18	Discard
		1	2	3	4	5	6	7	8	
0.2 ml / 10^{-1}	9-70	0	0	0	0	0	3-4	17H		} discard
	71	0	0	0	0	0	0	0	0	
	72	0	0	0	0	0	0	0	0	
1.2 ml / 10^{-2}	73	0	0	0	0	0	0	0	0	} discard
	74	0	0	0	0	0	0	0	0	
	75	0	0	0	0	0	0	0	0	

Tubes used Series 9 of 2/3/54 4-5 areas of very good growth

March 1, 1954

Cypr. 5961

received Brunkide. Inders Chimp Virus AP-26
Intracerebrally

Paralyzed 2/14/54; killed 2/14/54

On 2/22/54 sections of mid-lumbar & mid-cervical
cord weighing 0.99g. ground into 10% susp in
Hanks comp. centrifuged supernatant stored A-4-1

(Tubes used) Series 26 of 2/22/54 1-5 areas of very good
growth

Mat. Tested	Tube	3/2	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/10
Dil. & Amount	770.	1	2	3	4	5	6	7	8	9
0.2 ml.	26-46	0	0-?	0-? cont.	cont. Od	Od				
/10 ⁻¹	47	0-?	1	resid	sl. resid	sl. resid	resid	resid		
	48	1	1	0-?	resid	sl. resid	resid	resid		
	49	1	3	sl. resid	resid	sl. resid	resid	resid		
10 ⁻²	50	1	2-3	resid	sl. resid	sl. resid	off			
	51	1	4 off	off						
	52	0	2-3	sl. resid	sl. resid	sl. resid	resid	resid		
10 ⁻³	53	0-?	3	off						
	54	0-?	4	off						
	55	0	2	off						
10 ⁻⁴	56	0	0	0-2	4 off					
	57	0	0	0	0	0	0	2-3	off	
10 ⁻⁵	58	0	0	0	0	0	0	0	0	
	59	0	0	0	0	0	0	0	0	
10 ⁻⁶	60	0	0	0	0	0	0	0	0	

stored A-4-3
3/10/53

disc

Serial

Mar 6, 1954

Passage of	Tube	1	2	3	4	5	6	7
	no.	3/7	3/8	3/9	3/10	3/11	3/12	3/13
Tube 26-205	20-A	0	0	0	0	0	0	0
0.1ml →	20-B	0	0	0	0	0	0	0

3/7/54 Tube 26-205 The original implants (two remaining) are undergoing what looks very much like virus change - rounding up & peeling away. The narrow rim of tissue surrounding this implant seems to be undergoing non-specific degeneration around its perimeter.

Cyto. 5974 - Repeat Test - YSK. Series

Strain A-4-5

Note - Previous test neg. in tissue culture
Passage in monkeys positive

Inkubated - Series 97 of 6/7/54 good growth

Mat. Tested Dil. & Amount	Inkub. No.	6/16	6/18	6/19	6/21	6/24	Observe 10 days
0.2 ml. /10 ⁻¹	97-1	0	0	0	0	0	} dise.
	2	0	0	0	0	0	
	3	0	0	0	0	0	
	4	0	0	0	0	0	
	5	0	0	0	0	0	

February 20, 1954

Opjw 5977

receiving 4.5K KPSI intracranially

11 days after inoculation this monkey exhibited what was interpreted as partial paralysis of right hand

2/20/54

on 2/20/54

analysis of cervical & lumbar cord weighing 0.6 gm ground into 10% susp in Hawks conpt centrifuged supernatant stored A-4-8

Dilution & Amount That Tested	Tube No.	Challenge - 4.5K, KPSI 10 ⁻⁴														
		2/21 1	2/22 2	2/23 3	2/24 4	2/25 5	2/26 6	2/27 7	2/28 8	3/1 9	3/2 10	3/3 11				
0.2 ml / 10 ⁻¹	15-101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 ⁻²	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 ⁻³	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 ⁻⁴	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 ⁻⁵	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 ⁻⁶	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deal of 2-25-53 used 4 pumps monkey		Control 4.5K, KPSI 10 ⁻⁴										7/28	3/1	3/2		
		100 TCD ₅₀										0.2 ml	22-A	2		
													23-B	1		

Further Observations on 10⁻¹ Tube 103 which Resisted Challenge

There are 3 pieces of kidney tissue with a narrow ring of pigmented epithelial cells (a 1mm. around) and 1 zone of epith. cells (a 1-2mm) without tissue. There is no cytopathogenic change in any of them, although some of the original pieces of kidney seem to be disintegrating in rounded up cells - as if they were undergoing virus change.

Purpose - try to obtain further growth of these cells to determine if they will still be resistant to another virus challenge

Procedure - remove all of old medium (pH a 7.0)
 Replace with ^{fresh} medium ^(change) from another tube (no virus) after about 2 days of growth and add 0.4 ml. of rabbit serum (prev. shown to have no effect on virus. Pieces of tissue flipped off - medium removed; wash twice with 10ml. of Hank's
 Observe daily for signs of new growth and virus degeneration.

Date

Observations

3-4-54

With exception of one spot (arrow) where some of orig. explant remained most of cells rounded up - degeneration due handling?
 b) degeneration due to virus? c) rounding up prelim. to further growth - many of the cells show good nuclei. Will observe for further developments - to see if they fall off or grow out after a few days.

3-5-54

Cells - granular - degenerated - mostly off
 One spot (arrow) - all cells now rounded up - including of original residual piece of kidney.

Conclusion

- inconclusive
- may be degeneration because of egg handling or may be delayed virus change
- Test for virus would not help because all of virus was not washed out

February 17, 1954

Cypr. 5986

received from KP-34 Intraurebrally

Dead two & one half days after inoculation on 2/12/54

Histology - neg

on 2/17/54

Frozen sections of lumbar & thoracic cord weighing 0.7 gm
ground into 10% susp in Hank's compl. multiplied super-
natant frozen

Tubes used Series 14 of 2/19/54 at least one or two areas of good growth
Series 15 of 2/10/54 at least 3 to 5 areas of good growth
A-4-8

Dil. Amount	Tube	2/18	2/19	2/20	2/21	2/22	2/23	2/24	2/25	
Mat. Used	No.	1	2	3	4	5	6	7	8	
0.2 ml. / 10 ⁻¹	14-61	0	0	0	0	0	0	0	0	
	62	0	0	0	0	0	0	0	0	
	63	0	0	0	0	0-1	off			Fats +
10 ⁻²	64	0	0	0	0	0	0	0	0	
	15-1	0	0	0	0	1	off			Part +
	2	0	0	0	0	0	Od	Od	Od	

3/2/54 *

Passage 10⁻¹ dil. → 27-3 ^{3/3} 4 off } discard
 Tube 14-63 0.2 ml. → 27-4 4 off

Passage 10⁻² dil. → 27-5 4 off } harvest & freeze
 Tube 15-1 0.2 ml. → 27-6 4 off } harvested 3/3/54
 stored A-4-1

February 17, 1954

Cypr. 5990

received Frank #P-33 Intracerebrally

Dead three days after inoculation on 2/19/54

on 2/17/54

frozen sections of lumbar thoracic cord weighing 0.6 gm
ground into 10% susp in Frank's centrifuged supernatant frozen

Tubes used - Series 14 of 2/19/54 A-4-8 discard
at least one or two areas of good growth

Dil. Amount	Tube	1	2	3	4	5	6	7	8
Mat. Tested	No.								
0.2 ml / 10 ⁻¹	49	0	0-1	OK					
	50	0	0-1	OK					
	51	0	3	OK					
	52	0	0	OK					
	53	0	0	OK	40%				
10 ⁻²	54	0	0	0-?	40%				

titer further
if no endpoint

March 2, 1954

Repeat Cyn. 5990

revived Mak KP33 Intracranially

Dead 2 1/2 days later; No Polio lesions

Dil. Amount Mat. Tested	Tube No.	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/10
		1	2	3	4	5	6	7	8
0.2 ml. /10 ⁻²	26-152	1	3/4	OK					
	153	0	0	4/4					
10 ⁻³	154	0	0	0	0		all d		
	155	0	0-9	4	harvested	3/8/54	stored	A-4-2	
10 ⁻⁴	156	0	0	0	0		0	0	0
	157	0	0	0	0		0	0	0
10 ⁻⁵	158	0	0	0	0		0	0	0
	159	0	0	0	0		0	0	0
10 ⁻⁶	160	0	0	0	0		0	0	0
	161	0	0	0	0		0	0	0

insured

February 17, 1954

Cypr. 5992

received Frak #P33 Intracerebrally

Dead ~~7~~ days after inoculation on 2/16/54

No lesions

On 2/17/54

frozen sections of lumbar & thoracic cord weighing 2.6 gm
ground into 10% susp. centrifuged supernatant stored
in Hank's

A-4-8

Tube used Series 14 of 2/9/54
at least 7 or 8 had areas of good growth

! Disease

Dil. Amount	Tube No.	7/8	7/9	7/10	7/11	7/12	7/13	7/14	7/15
Frak. Tested		1	2	3	4	5	6	7	8
0.2 ml. / 10 ⁻¹	4-55	0	0	0	0	0	0	0	0
	56	0	0	0	0	0	0	0	0
	57	0	0	0	0	0	0	0	0
10 ⁻²	58	0	0	0	0	0	0	0	0
	59	0	0	0	0	0	0	0	0
	60	0	0	0	0	0	0	0	0

February 23, 1954

Dyno 5996

Intracerebral

Mahoney KP35 (Lot of 11/21/53) from term. delation
Paralysis right upper 14 days after inoculation

on 2/23/54

sections of lumbar & cervical cord weighing 0.7 gm ground into 10% susp. centrifuged supernatant stored A-4-9

Dilution & Amount	Tube	2/24	2/25	2/26	2/27	2/28	2/29	3/1	3/2	3/3
Material Tested	770	1	2	3	4	5	6	7	8	
0.2 ml. / 10 ⁻¹	22-248	2	off							
	20-249	3	off							
	250	1	off							
	251	2	off							
10 ⁻²	252	1	off							
	253	2	off							
	254	0	off							
10 ⁻³	255	0	0-1	off						
	256	0	off							
	257	0	0	0-1	off					
	22-258	0	0	0	0		1	off	paralyzed 3/2/54	stored A-4-9
	20-259	0	0	0	0		0	0	0	
10 ⁻⁵	22-260	0	0	0	0		0	0	0	
	261	0	0	0	0		0	0	0	
10 ⁻⁶	262	amt.								

Harvest + freeze
1 term delation

March 10, 1954

Cyrc. 6066

received Makomy, KP 33, Intracranially - $10^{6.2}$ TC₅₀.

Killed 2/10/54 ; Par. left foot - 3 days - progressive to
Prostrate - 6 days.

On 2/10/54

Sections of spinal cord weighing 1.2 gm. ground into
 10^7 susp. in Hank's compl. centrifuged supernatant
stored A-4-2

Materials

<u>Tested Dil^x</u>	<u>Tube</u>	<u>3/11</u>	<u>3/12</u>	<u>3/13</u>	<u>3/14</u>	<u>3/15</u>	<u>3/16</u>	<u>3/17</u>	<u>3/18</u>
<u>Amount</u>	<u>770</u>	1	2	3	4	5	6	7	8

$0.2 \text{ ml.} / 10^{-1}$	31-201	0-1	491						
	202	0-1	491						
	203	0-1	491						
10^{-2}	204	0	491						
	205	0	491						
	206	0	2	491					
10^{-3}	207	0	491						
	208	0	0	0		0	0	0	0
	209	0	491						
10^{-4}	210	0	0	0		0	0	0	0
	211	0	0	4					
10^{-5}	212	0	0	0		0	0	0	0
	213	0							
10^{-6}	214	0	0	0		0	0	0	0
	33-215	0	0	0		0	0	0	0

$10^{-3.5} / 0.2 \text{ ml}$
 $10^{4.2} \text{ TC}_{50} / \text{gm}$

March 17, 1954

Cypr. 6069

Mahoney, KP 33 of 7/28/53 i. cer. on 3/4/54

Died without CAS signs on 3/17/54 - 13 days

Histology neg.

On 3/17/54.

Sections of spinal cord weighing 2 (gm.) ground into 10% susp. centrifuged & supernatant stored A-4-3

Material

Tested Dil. & Amount

Tube no.

3/18	3/19	3/20	3/21	3/22	3/23	3/24	3/25
1	2	3	4	5	6	7	8

0.2 ml.

38-1

0 0 0 0 0 0 0 0

2

0 0 0 0 0 0 0 0

10-1

3

0 0 0 0 0 0 0 0

4

0 0 0 0 0 0 0 0

5

0 0 0 0 0 0 0 0

10-2

6

0 0 0 0 0 0 0 ad

Discarded

Subtested Series 28 of 2/10/54

2-3 areas of good growth

7 March 13, 1954

Cyrt. 6082 Subpassage from Cyrt. 5774

receiving G-2K Virus KP-52, Lot 2, Intracutaneous

Paralyzed 9 days after intra cerebral inoculation
Sacrificed same day

Check identity of virus by neutralization test

On Mar 13, 1954 fresh sections of cervical & lumbar cord
weighing 2.7 gm. ground into 10% susp. in Hank's comp.
centrifuged supernatant stored A-4-3

Mat. Tested	Tube no.	3/4	3/5	3/6	3/7	3/8	3/9	3/10	3/11	3/12
Dil. & Amount		1	2	3	4	5	6	7	8	9
0.2 ml. / 10 ⁻¹	35-46	0	0	0	0	0	0	0	0	off + few good cells
	47	0-?	off	off	off	off	off	off	off	off
	48	0-?	off	off	off	off	off	off	off	off
10 ⁻²	49	0-?	off	off	off	off	off	off	off	off
	50	3	off	off	off	off	off	off	off	off
	51	0-?	off	off	off	off	off	off	off	off
10 ⁻³	52	0	3-4	off	off	off	off	off	off	off
	53	0	2-3	off	off	off	off	off	off	off
	54	0	2-3	?	off	off	off	off	off	off
10 ⁻⁴	55	0	0	0-1?	off	used in next test	off	off	off	off
	56	0	0	0	0	0	0	0	0	0
	57	●	●							
10 ⁻⁵	57	0	0	0	0	0	0	0	0	0
	58	0	0	0	0	0	0	0	0	0
10 ⁻⁶	59	0	0	0	0	0	0	0	0	0
	60	0	0	0	0	0	0	0	0	0

3/16/54 * 2 areas in tube 35-47 looks as if virus change has occurred
with outg. falling away of all growth one area
looks as if sl. virus change occ. & those cells have outg.
fallen off.

March 22, 1954

Cyrt. 6082 - Neutralization Test of Virus
Isolated from above Cyrt. against 3 Types Folio
Antisera to check Identity.

Virus Used: Tube 35-55 from 10^{-4} dil. requested on 3/22/54
information concerning this tube found
on preceding page 1:10 dil. of
this virus used in neutralization test below

Antiserum Used: Standard NFP antiserum against 3 Types
used in 1:10 dil. of virus

Procedure: 0.4 ml of diluted virus + 0.4 ml. of 1:5 dil
antiserum incubated 1 hr. at room temp.
0.2 ml. ino. into each of 3 tubes for each
3 types
Controls 0.4 ml. virus + 0.4 ml. Hank's compl.

Mat. Tested	Tubes	3/23	3/24	3/25	3/26	3/27	3/28	3/29	3/30
Dil. Amount	used	1	2	3	4	5	6	7	8
0.2 ml. Control	40-101	2	off						
10^{-4} Cyrt 6082	102	1	off						
Hanks	103	1-2	off						
10^{-4} Cyrt 6082	104	1	off						
Type I	105	0	off						
	106	1	off						
10^{-4} Cyrt 6082	107	0	0	0a	0a	0a	0a	0a	0a
Type II	108	0	0	0	0	0a	0a	0a	0a
	109	0	0	0a	0a	0a	0a	0a	0a
10^{-4} Cyrt 6082	110	3	off						
Type III	111	2	off						
	112	1	off						

Discard

March 15, 1954

Cyn. 6084 - Y-SK Series - (Subpass from Cyn 5774)

5774 - 1. cut. \pm Lot 2, KP53; - Dead 10 days after inoc. - no paralysis
sickly.

Focal lesions in spinal cord; virus 10^4 . 7.25/6.5

Passed i. cer - 6084 - ? par 9 days; progressive to partial
par. uppers + lowers - 11th day.
Sacrificed 11th day

Check identity of this virus by neutralization tests

On 3/15/54 sections of cervical, thoracic & lumbar cord (1.5 gm)
ground into 20% susp in Hank's comp. centrifuged
supernatant stored A-4-4

Mat. Tested	Tube No.	3/16	3/17	3/18	3/19	3/20	3/21	3/22	3/23
Dil. & Amount		1	2	3	4	5	6	7	8
0.2 ml / 10^{-1}	36-16	0	1-3	OH					
	17	0	3	OH					
	18	0	2	OH					
10^{-2}	19	0	2-3	OH					
	20	0	1	OH					
	21	0	2	OH					
10^{-3}	22	0	0	0	0	0	0	0	0
	23	0	0-1	OH					
	24	0	0	0	0	0	OH		
10^{-4}	25	0	3	OH					
	26	0	0	0	0	0	0	0	0
10^{-5}	27	0	0	0	0	0	0	0	0
	28	0	0	0	0	0	0	0	0
10^{-6}	29	0	0	0	0	0	0	0	0
	30	0	0	0	0	0	0	0	0

March 12, 1954

Cyn. 6085 - Mahoney Series - Subpass from Cyn 5996

Cyn 5996 - KP35 (progeny of term. dil. of KP33 - 11/21/53) - 100% - P14

Cyn 6085 - P8; K8

On March 12, 1954 fresh sections of cervical, thoracic & lumbar cord ground into 10% susp. in Hank's. Tissue weighed 0.9 gm. centrifuged supernatant stored 0-4-2

Mat. Tested	Tube	3/13	3/14	3/15	3/16	3/17	3/18	3/19	3/20	3/21
Dil. & Amount	770.	1	2	3	4	5	6	7	8	9
0.2 ml. / 10 ⁻¹	25-1	3		off						
	2	3		off						
	3	3		off						
10 ⁻²	4	0		2	off					
	5	0		0	0	0	0	2-3	off	
	6	0		2	off					
10 ⁻³	7	0		0	0	0	0	0	0	0
	8	0		0	0	0.4	off			
	9	0		0	0	0.?	2-3	off		
10 ⁻⁴	10	0		0	0	0	0	0	0	0
	11	0		0	0	0	0	2	off	
10 ⁻⁵	12	0		0	0	0d	d			
	13	0		0	0	0	0	0	0	0
10 ⁻⁶	14	0		0	0	0	0	0	0	0
	15	0		0	0	0	0	0	0	0

10 - 3.5 / 0.2 ml

10 - 4.2 / 100% / 100%

Harvest & freeze 3/21 A-4-5

STANDARD B & P "NOISEAR"

STANDARD B & P "NOISEAR"

March 12, 1954
 Cyn. 6086 - Mahoney Series - Subpass
 from Cyn 5496

Same history as 6085

On March 12, 1954 fresh sections of cervical, thoracic & lumbar cord weighing 0.9 gm. ground into 10 ml susp. in Hank's centrifuge supernatant stored C-7-2

Mat. Tested	Tube	3/12	3/14	3/15	3/16	3/17	3/18	3/19	3/20	3/21
Dil + Amount	770.	1	2	3	4	5	6	7	8	9
0.2 ml. /10 ⁻¹	35-16	0		TH						
	17	0		TH						
	18	0		TH						
10 ⁻²	19	0		0-?	TH					
	20	0		TH						
	21	0-?		TH						
10 ⁻³	22	0		0	0	0	0	0	0	0
	23	0		0	0	0	0	0	0	0
	24	0		0	0	4				
10 ⁻⁴	25	0		0	0	0	0	0	0a	0a
	26	0		0	0	0	0	0	0	0
10 ⁻⁵	27	0		0	0	0	0	0	0a	0a
	28	0		0	0	0	0	0	0	0
10 ⁻⁶	29	0		0	0	0	0	0	0	0
	30	0		0	0	0	0	0	0	0

10^{-2.8} / 0.2 ml
 10^{3.5} / 100/50/60

3/21 A-4-5
 Harvest + freeze

March 16, 1954

Caps. 6088 — Subpass from Cym 5996
 Mahoney KP 35 Series

on 3/16/54

fresh sections of spinal cord (gm.) ground into
 10% susp. in Hank's compl. centrifuged supernatant
 stored A-4-6

Mat. Tested	Tube No.	3/7	3/8	3/9	3/10	3/11	3/12	3/13	3/14
Dil. & Mount		1	2	3	4	5	6	7	8
0.2 ml. / 10 ⁻¹	34-A	0	3	14					
	B	0	2	14					
	C	0?	3	14					
10 ⁻²	D	0	3-4	14					
	E	0	1-2	14					
	F	0	0	14					
10 ⁻³	G	0	0	3-4	14				
	H	0	0	2	14				
	I	0	0	4	14				
10 ⁻⁴	J	0	0	0	4	14			
	K	0	0	2	2	2	4	14	
10 ⁻⁵	L	0	0	0	0	0	0	0	0
	M	0	0	0	2	2	2	2	2
10 ⁻⁶	N	0	0	0	0	0	0	0	0
	O	0	0	0	0	0	0	0	0

10^{-4.5} / 0.2 ml
 10^{-5.2} + 10^{-5.0} / 6 ml

March 16, 1954

Cyn. 6089 - Y.S.K 51 Series - Subpass from
Cyn 5977

Died of diarrhea 12 days after inoculation

Histology - neg

On 3/16/54

fresh sections of spinal cord (9m.) ground into 10%
susp. in Hank's comp. centrifuged supernatant
stored A-4-6 - Discard

Mat. Tested	Tube No.	3/17	3/18	3/19	3/20	3/21	3/22	3/23	3/24
Dis. & Amount	No.	1	2	3	4	5	6	7	8
0.2 ml. 10 ⁻¹	34-P	0	0	0	0	0	0	0a	0a
	Q	0	0	0	0	0	0	0a	0a
	R	0	0	0	0	0	0	0a	0a
	S	0	0	0	0	0	0	0a	0a
	T	0	0	0	0	0	0	0a	0a
	U	0	0	0	0	0	0	0a	0a
10 ⁻²	V	0	0	0	0	0	0	0a	0a
	W	0	0	0	0	0	0	0a	0a
	X	0	0	0	0	0	0	0a	0a
10 ⁻³	37-Y	0	0	0	0	0	0	0a	0a
	Z	0	0	0	0	0	0	0a	0a
10 ⁻⁴	I	0	0	0	0	0	0	0a	0a
	II	0	0	0	0	0	0	0a	0a
	III	0	0	0	0	0	0	0a	0a
10 ⁻⁵	IV	0	0	0	0	0	0	0a	0a
	V	0	0	0	0	0	0	0a	0a

3/21 There is some degree of foamy degeneration in all of above tubes as of this date.

March 12, 1954

Cyn. 6095 - Mahoney Series - Subpass from Cyn 5861

5861 - KP35, Lot 1icer - P5, D6
6095 - P8, K8.

On March 12, 1954 fresh sections of cervical, thoracic, & lumbar cord ground into 10% suspension Hank's comp. and material weighed 0.8 gm. centrifuged supernatant stored @-4-2

Mat. Tested Dil. & Amount	Tube No.	3/13	3/14	3/15	3/16	3/17	3/18	3/19	3/20	3/21
0.2 ml. / 10 ⁻¹	31-31	0	0	0	0?	off				
	32	0	0	0	off					
	33	0	0	0	0	off				
10 ⁻²	34	0	off	0	off					
	35	0	off	0	off					
	36	0	off							
10 ⁻³	37	0		0	2?2	off				
	38	0		0	0	0	0	od	d	d
	39	0		0	0	0	0	0	0	0
10 ⁻⁴	40	0		0	0	3-4	off	- keep		Discard
	41	0		0	0	0	bad	off		
10 ⁻⁵	42	0		0	0	0	0	0	0	0
	43	0		0	0	0	0	0	0	0
10 ⁻⁶	44	0		0	0	0	0	0	0	0
	45	0		0	0	0	0	0	0	0

3/22/54 Passage tube 33-41

Tube No.	3/22	3/24	3/25	3/26
33-41 1.2 ml → 40A	0	0	0	0
40B	0	0	0	0

Page 6103 - Br.-Enders - Chimp Subpassage
of Cyn 5836 (icut).

Found dead 19 days after inoculation

On 4/5/54 sections from ground into 10³ susp.
centrifuged stored C-4-5

Inoculated Series 52 of 3/30/54²⁹

<u>Treat. Tested</u>	<u>Tube</u>	$\frac{1}{6}$	$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{9}$	$\frac{1}{10}$	$\frac{1}{11}$	$\frac{1}{12}$	$\frac{1}{13}$	Discard
<u>Dil. & Amount</u>	<u>No.</u>	1	2	3	4	5	6	7	8	
0.2 ml / 10 ⁻¹	52-46	0	0	0	0	0		0	0	
	47	0	0	0	0	0		0	0	
	48	0	0	0	0	0		0	0	
10 ⁻²	49	0	0	0	0	0		0	0	
	50	0	0	0	0	0		0	0	
	51	0	0	0	0	0		0	0	
10 ⁻³	52	0	0	0	0	0		0	0	
	53	0	0	0	0	0		0	0	
	54	0	0	0	0	0		0	0	
10 ⁻⁴	55	0	0	0	0	0		0	0	
	56	0	0	0	0	0		0	0	
10 ⁻⁵	57	0	0	0	0	0		0	0	
	58	0	0	0	0	0		0	0	
10 ⁻⁶	59	0	0	0	0	0		0	0	
	60	0	0	0	0	0		0	0	

March 30, 1954

Cyrt. 6106 Brunhild's Excess Chimp Subpassage

Subpass from Cyrt 5961 - Dec.

Paralyzed 13 days after inoculation

Tubes Used: Series 47 of 3/23/54

Material Tested Dil. & Amount	Tube No.	Series 47 of 3/23/54									
		3/21	4/1	4/2	4/3	4/4	4/5	4/6	4/7	4/8	4/9
0.2 ml / 10 ⁻¹	47-16	0	0	0-1	3	4					
	17	0	0	2	off						
	18	0	0-1	4							
10 ⁻²	19	0	0	0	0	1	4				
	20	0	0	3	off						
	21	0	0-1	4							
10 ⁻³	22	0	0	0	0	0	0	0	0	0	
	23	0	0	0	0	0	0	0	0	0	
	24	0	0	0	0	0	0	0	0	4	
10 ⁻⁴	25	0	0	0	0	0	0	0	0	0	
	26	0	0	0	0	0	0	0	0	0	
10 ⁻⁵	27	0	0	0	0	0	0	0	0	0	
	28	0	0	0	0	0	0	0	0	0	
10 ⁻⁶	29	0	0	0	0	0	0	0	0	0	
	30	0	0	0	0	0	0	0	0	0	

Discard

stored A-4-6

10^{-2.8} / 0.2 ml

10^{3.5} TC 20 / 6m

March 24, 1954

Cypr. 6109 - Mahoney Subpass series

Mahoney, KP35 (Lot 1) $\xrightarrow{\text{icer}}$ 5681 (P5;D6) $\xrightarrow{\text{icer}}$ 6095 (P8;K8) $\xrightarrow{\text{icer}}$ 6109 (P7;K7)

On 3/24/54 fresh sections of corn ground into 10% susp. in Hank's centrifuged supernatant stored A-4-5

Mat. Tested	Inch	3/25	3/26	3/27	3/28	3/29	3/30	3/31	4/1
Dil. & Amount	770.	1	2	3	4	5	6	7	8
0.2ml. / 10 ⁻¹	43-25	0	4/0H						
	26	0	1H						
	27	0	4/0H						
10 ⁻²	28	0	3	1H					
	29	0	4/0H						
	30	0	1H						
10 ⁻³	31	0	0	3	1H				
	32	0	0	0	0	0	0	0	4 harvested 4/1 stored A-4-6
	33	0	1H						
10 ⁻⁴	34	0	0	0	0	0	0	0	0
	35	0	0	0	0	0	0	0	0
10 ⁻⁵	36	0	0	0	0	0	0	0	0
	37	0	0	0	0	0	0	0	0
10 ⁻⁶	38	0	0	0	0	0	0	0	0
	39	0	0	0	0	0	0	0	0

Save terminal dilution

April 3, 1954

Cypr 6113 - Mahoney KP 55 Inoc - Subpass.

Died 15 days after inoc. - no paralysis

On 4/1/54 sections of spinal cord ground into 10% susp.
centrifuged supernatant stored 0-4°C

<u>Mat. Tested</u>	<u>Dil. & Amount</u>	<u>Tubes</u> <u>No.</u>	4/4	4/5	4/6	4/7	4/8	4/9	4/10	4/11	4/12
			1	2	3	4	5	6	7	8	9
d.2.mh.	10 ⁻¹	50-6	0	0	0	0	0	0	0		0
		7	0	0	0	0	0	0		0	
		8	0	0	0	0	0	0		0	
10 ⁻²	9	0	0	0	0	0	0		0		
	10	0	0	0	0	0	0		0		
	11	0	0	0	0	0	0		0		
10 ⁻³	12	0	0	0	0	0	0		0		
	13	0	0	0	0	0	0		0		
	14	0	0	0	0	0	0		0		
10 ⁻⁴	15	0	0	0	0	0	0		0		
	16	0	0	0	0	0	0		0		
10 ⁻⁵	17	0	0	0	0	0	0		0		
	18	0	0	0	0	0	0		0		
10 ⁻⁶	19	0	0	0	0	0	0		0		
	20	0	0	0	0	0	0		0		

Tubes used: Series 50 of 3/26/54