

Persistence of Antibody in Individual Patients to Strains of Virus Recovered from their Own Alimentary Tract 3 Years Before.

Patient	VIRUS		1948 Test on 3 month serum		Amount of 3 month serum left	Projected Test in 1951			
	Passage used	Cumulat. titer in 1948	Dil. of Virus Cumulat. LD50	ED50		Final dilot. of virus	3 month serum dilutions	3 year serum dilutions	Virus titration
III (3/8/48)		2.9	1.3 (40)	1:97+?	2cc ± (11-28-47)	1.3 (vial 4)	16, 64, 256	UND, 4, 16, 64, 256	1.3, 2.3, 3.3, 4.3
II (12/6/47)		3.3	1.0 (200)	1:3	2.5cc ± (11-11-47)	2.0 (vial 2)	Und, 4, 16, 64	Und, 4, 16, 64	2.0, 3.0, 4.0, 5.0 48
II (2/26/48)		4.3	not done?		2.5cc ± (12-2-47)	2.7 (vial 3)	Und, 4, 16	UND, 4, 16	2.7, 3.7, 4.7, 5.7
II (12/8/47)		3.6	2.0 (40)	1:107+	*) 0.3cc ± (11-11-47)	2.0 (20cc vial)	16, 64, 256	Und, 4, 16, 64, 256	2.0, 3.0, 4.0, 5.0 48
II (13/11/47)		3.8	1.7 (125)	1:13	1.5cc ± (11-13-47)	2.0 (vial 2)	4, 16, 64	Und, 4, 16, 64	2.0, 3.0, 4.0, 5.0 44
II (3/5/48)		3.6	1.7 (80)	1:32	2.5cc ± (11-24-47)	2.0 (vial 2)	4, 16, 64, 256	Und, 4, 16, 64, 256	2.0, 3.0, 4.0, 5.0 52 monkey
II (2/20/48)		4.1	2.0 (125)	1:26	2cc ± (11-24-47)	2.3 (vial 3)	<del>4</del> 4, 16, 64, 256	Und, 4, 16, 64, 256	2.3, 3.3, 4.3, 5.3 52 monkey

All 3 year sera are stored in B-2-4

The 3 month sera are in cartons in big box

The viruses are also in cartons

\*) April 5 (monkey test): all serum used up.

Feb 21

Checking for viruses and serx, we found:

Result

lab 4 gen III 3/8'48.

OK

vial no. gen II 12/6 47 small ampkts.

? OK

B-8-8

vial no 2 and 4 but not 3, gen II, 2/26'48

not vial 3

vial no.) gen II 12/8'47

OK

vial no. gen I 12/11'47

?

lab 2, gen II, 3/5'48

OK

lab 3, gen II, 2/20 48

OK

and 3 years serx

OK

Risper Gen III - 5-17-48 1 vial (large)

" " - 10-18-48 2 vials (large)

[Redacted]

Wed April 4 1951

Temperat 3 mst	1.3 cc (measured)		0.45 cc
3 yr "	5 cc	} estimated	0.6 cc
from 3 mst "	2.8 cc		0.45 cc
3 yr "	3 cc		0.6 cc

Patient [redacted] = 8 years old, paralytic polio (Cincinnati ep. 1947). Virus recovery in monkeys, cum.  $PD_{50} = 10^{-2.9}$  FINE  
 of undil. serum vs patient's own virus: acute phase serum (0.5 day) 80+; 3 mo serum 250+. Serum in dilutions titrated  
 against constant amount of virus (51 mult. titration 160  $PD_{50}$ ) acute phase serum 1:6, 3 mo serum 1:107+.

Various dilutions of Sera vs. Single dose of Virus*	original number of monkeys:	died from diarrhea (with day of death)	histology of the diar. Monkeys: N=NEGATIVE.	paralyzed (1 <sup>st</sup> day of p.i.s indicated)	number of paralyzed monkeys	of survivors ↓	50% endpoint (not considering the 1:1 section.)	histology of the surviving monkeys	Definitive 50% endpoint
3 mo. serum 1:16	4		-	14,0,0,0.	1	3	} 1:256		
" " 1:64	4	1 (1)	-	14.00.	1	2			
" " 1:256	4	2 (4, 10)	-	00	0	2			
3 yr serum undil.	4		-	0000	0	4	} 10 <sup>-1.95</sup> 10 <sup>-1.90</sup>		
1:4	4		-	0000	0	4			
1:16	4	1 (7)	-	24,00	1	2			
1:64	4	2 (2, 6)	-	00	0	2			
1:256	4		-	6,8,9,12	4	0			
Virus control 10 <sup>-1.3</sup>	4		-	6,7,8,9	4	0	} <del>10<sup>-2.9</sup> NP.</del>		
10 <sup>-2.3</sup>	4	1 (4)	-	14,00.	1	2			
10 <sup>-3.3</sup>	4		-	8,9,00	2	2			
10 <sup>-4.3</sup>	3		-	12,00#	1	2			

[redacted] VIRUS 48 } 7

losing antibody: Acute phase serum - 3 mo serum -  
 In test march 9, 1951: 3 yr serum NI 10.

\*) Dose of virus: cum  $PD_{50} = 10^{-2.9}$ , 40  $PD_{50} = 10^{-1.53}$  ( $\log 40 = 1.6$ )  
 = dilution of the virus (final) 1:20 (virus susp = 300% = 1:5)  
 These doses was also used in the test on 6-13-48.