

EXPERIMENT

With Mule Virus, Type 2891.

III Generation.
IV Generation.

Gen.	Date of Injection.	Species.	No.	VIRUS.				Reaction from.	Incub.
				Inj.	Orig.	Gen.	Date.		
V	1907. Oct. 4	Donkey foal	2564	I. 5	2891	4	1907. July 19	1907. Oct. 8 to 15	(days) 4
	" 24	Horse	3060	S. 2	"	"	" 19	Nov. 1 to 6	8
	" 4	Horse foal	2707	I. 5	"	"	" 19	Oct. 11 to 16	7
	" 4	Mule	2923	S. 2	"	"	" 19	" 13 to 18	9
	1908. April 6	Horse	3409	S. 2	"	"	" 19	April 13 to 19	8
	" 6	"	3328	"	"	"	" 19	" 14 to 21	8
	" 23	"	3426	"	"	"	" 21	" 28 to May 3	5
	1907. Nov. 4	Horse	3095	I. 10	2707	5	Oct. 14	—	—
	Oct. 24	Mule	2958	S. 2	2564	5	Oct. 10, 12, 14	—	—
	" 24 " 24	Donkey foal Horse	2550 3097	S. 10 S. 10	" "	" "	" "	Nov. 1 to 8 Oct. 30 to Nov. 4	8 6
VII Nov. 8	Donkey foal	2551	S. 5	2550	6	Nov. 4	Nov. 13 to 18	5	
" 8	Horse	3145	"	"	"	" 4	" 14 to 18	6	
VIII " 23	Donkey foal	2494	I. 5	2551	7	" 17	Nov. 28 to Dec. 5	5	
1908. Jan. 10	Mule	3290	S. 2	"	"	" 17	Jan. 18 to 25	8	

IV Generation.
V Generation.
VI Generation.
VII Generation.
VIII Generation.

Gen.	Date of Injection.	Species.	No.	VIRUS.				Reaction from.	Incub.
				Inj.	Orig.	Gen.	Date.		
IX	1907. Dec. 27	Horse foal	2274	S. 2	2494	8	1907. Dec. 2	1908. Jan. 7 to 12	(days) 11
	" 27	Donkey foal	3212	"	"	"	" 2	—	—
	1908. Jan. 7	Horse foal	3231	I. 5	"	"	" 2	" 14 to 17	7
	" 7	Donkey foal	3203	"	"	"	" 2	—	—

No. 3.

*Tzaneen strain, fourth generation.*Mules, Natal.
Mule 2891.

Re-action.	Incub. + R.	Result.	Tested.	VIRUS.				Result.	Remarks.
				Inj.	Orig.	Qual.	Gen.		
(days)	(days)								
7	11	Recovd.	-	1908.					
5	13	R D †	-						
5	12	R †	-						
5	14	Recovd.	-	Feb. 8	I. 10	3319 3095	P.P.R. "	-	No R "
6	14	R D †	-						
7	15	R & D	-	June 19	S. 2	3513	CD VI	-	R
5	10	R D †	-						
—	—	No R	-	1907. Dec. 19	S. 2	Mule	P.P.R.	-	R †
—	—	No R	-	1908. Feb. 8	I. 10	3319 3095	P.P.R. "	-	R D † "
7	15	Recovd.	-						
5	11	R †	-						
5	10	Slight R	-						
4	10	R †	-						
7	12	Recovd.	-						
7	15	R †	-						

Mule 2891.
Donkey foal 2564.
Donkey foal 2550.
Donkey foal 2551.
Donkey foal 2494.

Re-action.	Incub. + R.	Result.	Tested.	VIRUS.				Result.	Remarks.
				Inj.	Orig.	Qual.	Gen.		
(days)	(days)								
5	16	R D †	-						
—	—	Indef. R	-						
3	10	R †	-						
—	—	Irreg. R	-						Died of pleuritis, Jan. 29, 1908.

R—Reaction. R†—Reaction and died. R & D—Reaction with dikkop.
RD†—Reaction with dikkop and died.

ANALYSIS OF RESULTS—TYPE 2891.

“A.” *Susceptibility.**Results.*

1. Of 7 subcutaneous injections into susceptible horses, 1 reacted and recovered, 6 reacted and died.
2. Of 3 intrajugular injections into susceptible horses, 2 reacted and died, 1 did not react.
3. Of 3 subcutaneous injections into susceptible mules, 1 reacted and recovered, 1 reacted and died, 1 did not react.

Taking these figures out according to percentages,

	Reactions.	Deaths.	No Reaction.
	%	%	%
Subcutaneous injections into horses caused	100	86	Nil.
” ” ” mules ”	67	33	33
Intrajugular ” ” horses ”	67	67	33
” ” ” mules ”	—	—	—

Conclusions.

1. The susceptibility of horses is greater than that of mules.
2. The subcutaneous injection of virus, type 2891, is more fatal for horses than for mules.
3. An equal percentage of horses failed to react to an intrajugular injection, as mules failed to react to subcutaneous injection.

“B.” *Resistance.*

1. A horse which resisted an intrajugular injection of 10 c.c. and a mule which resisted a subcutaneous injection of 2 c.c. both contracted the disease when tested with a different strain.

“C.” *Virulency.**Results.*

1. Of 5 susceptible horses injected with mule virus, 1 reacted and recovered, 4 reacted and died.
2. One susceptible horse injected with horse virus did not react.
3. Of 4 susceptible horses injected with donkey foal virus, 4 reacted and died.
4. Of 2 susceptible mules injected with donkey foal virus, 1 reacted and died, 1 did not react.

Taking these figures out according to percentages,

	Reactions.	Deaths.	No Reaction.
	%	%	%
The injection of horses with mule virus caused	100	80	—
” ” ” donkey foal virus	100	100	—

Conclusions.

1. Mule and donkey foal virus each caused the maximum percentage of reactions.
2. Donkey foal virus is more fatal than mule virus.

*“E.” Influence of dose and manner of injection.**Injections of virus of type 2891.*

1. In the dose of 2 c.c. subcutaneously, 2 reacted and recovered, 7 reacted and died, 1 did not react.
When tested later by intrajugular injection of 10 c.c. this animal reacted and died.
2. In the dose of 5 c.c. intrajugularly, 2 reacted and died.
3. In the dose of 10 c.c. intrajugularly, 1 did not react.
When tested later by subcutaneous injection of 2 c.c. (different strain) this animal reacted and died.

EXPERIMENT

With Mule Virus, Type 2539,

HORSE 1087, TZANEEN

 I Generation,
 II Generation,
 III Generation,
 IV Generation,

Gen.	Date of Injection.	Species.	No.	VIRUS.				Reaction from.	Incub. (days)
				Inj.	Orig.	Gen.	Date.		
V	1907. Jan. 22	Mule	2539	S. 2	2415	4	1907. Jan. 2	Jan. 26 to Feb. 2	3
VI	Feb. 4	"	2495	"	2539	5	" 30	Feb. 14 to 21	10
	" 27	"	2669	"	"	"	" 30	Was not virulent	—
	Mar. 20	"	2693	"	"	"	" 28		—
	" 20	"	2694	"	"	"	" 28	"	—
	" 20	"	2695	"	"	"	" 30	"	—
	" 20	"	2696	"	"	"	" 30	"	—
	" 28	Horse	2722	"	"	"	" 30	—	—
	1908. Jan. 10	Mule	3227	"	"	"	" 30	—	—
	Feb. 17	Horse	3248	S. 50	"	"	" 30	Feb. 26 to Mar. 1	9

No. 4.

Tzaneen strain, fifth generation.

(ORIGIN).

Mule 1965.
 Mule 1996.
 Mule (Natal) 116/97.
 Mule 2415.

Re- action.	Incub. + R.	Result.	Tested.	VIRUS.				Result.	Remarks.
				Inj.	Orig.	Qual.	Gen.		
(days)	(days)	Recovd.	1907.						
7	10		1 Feb. 5	S 2	2407	Ord.	38	Reaction	
			2 April 16	"	2406	OTBLPW	—	"	
7	17	"	1 Feb. 26	"	2598	Ord.	38	R ?	
			2 April 17	"	2406	OTBLPW	—	No R	
			3 May 3	S 6	2709	Ord.	—	"	
					2148	Tzn.	—	"	
					2168	Bul.	—	"	
—	—	R ?	— Mar. 20	S. 5	2415	Tzn.	4	Reaction	
—	—	"	1 April 4	S. 2	2629	"	5	"	
			2 " 23	"	2406	OTBLPW	—	Slight R	Simult. 100 c.c. serum.
			3 May 14	S. 5	2709	Ord.	—	"	
					2148	Tzn.	—	No R	
					2168	Bul.	—	"	
—	—	"	1 April 4	S. 2	2415	Tzn.	4	R & D	
			2 " 23	"	2406	OTBLPW	—	R ?	Simult. 100 c.c. serum.
			3 May 14	S. 5	2709	Ord.	—	"	
					2148	Tzn.	—	No R	
					2168	Bul.	—	"	
—	—	"	1 April 4	S. 2	2629	Tzn.	5	Reaction	
			2 " 23	"	2406	OTBLPW	—	Slight R	Simult. 100 c.c. serum.
			3 May 14	S. 5	2709	Ord.	—	"	
					2148	Tzn.	—	No R	
					2168	Bul.	—	"	
—	—	"	1 April 4	S. 2	2415	Tzn.	4	Reaction	
			2 " 23	"	2406	OTBLPW	—	Slight R	Simult. 100 c.c. serum.
			3 May 14	S. 5	2709	Ord.	—	"	
					2148	Tzn.	—	No R	
					2168	Bul.	—	"	
—	—	No R	— April 16	I. 2	2539	Tzn.	5	"	Died of piro- plasma, 25/5/07.
—	—	"	1908.						
4	13	R †	— Jan. 28	S. 2	2415	Tzn.	4	R D †	

R?—Doubtful reaction. R†—Reaction and died. R & D—Reaction with dikkop.
 R.D†—Reaction with dikkop and died.

EXPERIMENT

TYPE

IV Generation,
V Generation,
VI Generation,
VI Generation,

Gen.	Date of Injection.	Species.	No.	Virus.				Reaction from.	Incub.
				Inj.	Orig.	Gen.	Date.		
VII	1907. Mar. 30	Horse	2705	S. 2	2495	6	1907. Feb. 19	1907. April 7 to 13 1908.	(days) 7
	1908. Feb. 26	Mule	3288	"	"	"	" 19		March 10 to 16 1908.
	Mar. 20	"	3434	"	"	"	" 19		
	" 20	Horse	3437	"	"	"	" 19	—	—
	April 23	"	3439	"	3248	6	" 29	April 30 to May 4	7

VI Generation,
VII Generation,

Gen.	Date of Injection.	Species.	No.	Virus.				Reaction from.	Incub.
				Inj.	Orig.	Gen.	Date.		
VIII	1908. April 27	Horse	3342	S. 2	2705	7	1907. April 12	1908. May 4 to 10	(days) 7
	" 6	"	3396	"	3288	7	1908. Mar. 11		—
	" 20	"	3496	S. 50	"	"	" 11	April 27 to May 3	7
	" 20	"	3498	S. 2	"	"	" 11		—
	May 14	"	3540	S. 5	"	"	" 11	—	—
	June 3	—	—	I. 5	"	"	" 11	—	—
	" 26	—	—	I. 10	"	"	" 11	July 1 to 4	4
	May 21	Horse	3553	I. 2	"	"	" 11	—	—
	June 3	Mule	3528	I. 2	"	"	" 11	—	—
	" 26	—	—	I. 10	"	"	" 11	July 2 to 9	6
	" 9	Mule	3564	S. 2	"	"	" 11	—	—

No. 4—(continued).

2539.

Mule 2415.
Mule 2539.
Mule 2495.
Horse 3248.

Re-action.	Incub. + R.	Result.	Tested.	VIRUS.				Result.	Remarks.
				Inj.	Orig.	Qual.	Gen.		
(days) 6	(days) 13	R †							
6	19	Recovd. R ?	1908. 1 May 7 2 April 18 3 May 7 3 June 2	S. 2 " " " " S. 8	3494 3446 3375 —	P.P.R. Tzn. " " Polyv. virus mixt. Tzn. " "	1 8 18 —	R R ? No R "	Simult. 50 c.c. serum.
—	—	"	1 April 18 2 May 7 3 June 11	S. 2 " " S. 10000	3446 3375 3609	Tzn. " " " "	8 18 19	R No R R †	Simult. 200 c.c. serum.
4	11	R †							

Mule 2495.
Horse 2705.
Mule 3288.

Re-action.	Incub. + R.	Result.	Tested.	VIRUS.				Result.	Remarks.
				Inj.	Orig.	Qual.	Gen.		
(days) 6	(days) 13	R †							
—	—	No R	1908. April 23	S. 2	3368	Tzn.	5	R †	
6	13	R †	May 12	" "	2415	" "	4	"	
—	—	No R	—	—	—	—	—	—	
—	—	"	—	—	—	—	—	—	
4	8	R †	1 June 5	S. 2	3361	Tzn.	7	Reaction	
—	—	No R	2 " 30	" "	3619	" "	20	"	On the 9th day 200 c.c. serum.
—	—	No R	—	—	—	—	—	—	
7	13	R †	1 June 19	S. 20	3359	Tzn.	6	Reaction	
—	—	No R	2 July 31	S. 2	3699	" "	6	No R	
—	—	No R	3 Aug. 24	S. 3	—	Polyv. VI	—	Slight R	After 24 hrs. 100 c.c. serum.

R—Reaction.

R†—Reaction and died.

R?—Doubtful reaction.

No. 4—(continued).

2539.

Mule 2495.

Mule 3434.

Re- action.	Incub. + R.	Result.	Tested.		VIRUS.				Result.	Remarks.
					Inj.	Orig.	Qual.	Gen.		
(days) 7	(days) 12	R †								
—	—	No R	—	—	—	—	—	—	—	
—	—	"	—	—	—	—	—	—	—	
—	—	"	—	1908.						
—	—	"	—	June 3	S. 2	3361	Tzn.	7	R †	
—	—	"	—	—	—	—	—	—	—	
—	—	"	—	—	—	—	—	—	—	
—	—	"	—	June 3	S. 2	3361	Tzn.	7	R †	
5	9	R †								
—	—	No R	—	—	—	—	—	—	—	
—	—	"	—	July 31	S. 2	3699	Tzn.	6	R †	
—	—	"	—	June 30	S. 3	—	Polyv. VI	—	"	
—	—	Recovd. R ?	—	—	—	—	—	—	—	

Mule 3434.

Horse 3446.

Mule 3565.

Donkey Foal 3577.

Re- action.	Incub. + R.	Result.	Tested.		VIRUS.				Result.	Remarks.
					Inj.	Orig.	Qual.	Gen.		
(days) 10	(days) 15	Recovd.	1	1908. May 7	S. 2	3375	Tzn.	18	No R	Simult. 200 c.c. serum.
—	—	"	2	June 11	10000	3609	"	19	R †	
6	10	R †	—	July 14	S. 3	—	Polyv. VI	—	R †	Simult. 400 c.c. serum.
—	—	No R.	—	" 31	S. 2	3699	Tzn.	6	R †	
—	—	"	—	Sept. 1	S. 3	3788	"	6	No R	Simult. 300 c.c. serum.
—	—	"	—	Oct. 8	T. 10	1391 1392	—	—	R	
—	—	No R	—	Sept. 1	S. 3	3788	Tzn.	6	No R	24 hrs. later 300 c.c. serum.
—	—	"	—	" 15	S. 2	—	Polyv. VI	—	R †	Simult. 300 c.c. serum.

R—Reaction.

R †—Reaction and died.

R ?—Doubtful reaction.

ANALYSIS OF RESULTS—TYPE 2539.

“A.” *Susceptibility.**Results.*

1. Of 17 subcutaneous injections into susceptible horses, 1 reacted and recovered, 7 reacted and died, 9 did not react.
2. Of 6 intrajugular injections into susceptible horses, 2 reacted and died, 4 did not react.
3. Of 10 subcutaneous injections into susceptible mules, 4 reacted and recovered, 6 did not react.
4. Of 4 intrajugular injections into susceptible mules, 1 reacted and died, 3 did not react.

Taking these figures out according to percentages,

	Reactions.	Deaths.	No Reaction.
	%	%	%
Subcutaneous injections into horses caused	46	40	70
” ” ” mules	40	Nil	60
Intrajugular ” ” horses	33	33	66
” ” ” mules	25	25	75

Conclusions.

1. Horses were more susceptible than mules.
2. The subcutaneous injection of virus, type 2539, is more fatal for horses than for mules.
3. The intrajugular injection of virus, type 2539, is more fatal for horses than for mules.
4. The intrajugular injection into horse or mule is more fatal than the subcutaneous injection.
5. The number of susceptible animals which proved refractory to the injection of virus, type 2539, is greater than the number of animals which reacted.

“B.” *Resistance.*

1. Of 4 mules injected subcutaneously or intrajugularly with virus, type 2539, and tested later with the same type, 3 reacted and recovered and 1 died.
2. Of 3 mules injected subcutaneously or intrajugularly with virus, type 2539, and tested later with a different type, all reacted and recovered.
3. Of 3 horses injected subcutaneously or intrajugularly with virus, type 2539, 1 reacted and recovered, 1 reacted and died, and 1 did not react to the subsequent test, and later proved to be immune.
4. Of 2 horses injected subcutaneously or intrajugularly with virus, type 2539, and tested later with a different type, 1 reacted and died and 1 reacted and recovered.
5. One horse injected subcutaneously and intrajugularly in the dose of 5 c.c. virus, type 2539, did not react, but died later when injected with 10 c.c. virus, same type.
6. One mule injected subcutaneously with 2 c.c. virus, type 2539, did not react, and died later when injected intrajugularly with 10 c.c. same virus.
7. Two horses injected subcutaneously in the dose of 2 and 10 c.c., followed by an intrajugular injection of 10 c.c. virus, type 2539, did not react, but both died later when injected with the same strain of virus, different type.
8. One mule injected intrajugularly in the dose of 2 and 10 c.c. did not react, but died when tested later with the same strain of virus, different type.
9. The blood of 1 mule which had a typical reaction was not virulent for 3 susceptible horses and 1 mule.

*Results.**"C." Virulency.*

1. Of 4 susceptible horses injected with horse virus, 1 reacted and recovered, 3 reacted and died.
2. Of 13 susceptible horses injected with mule virus, 6 reacted and died, 7 did not react.
3. Of 14 susceptible mules injected with mule virus, 4 reacted and recovered, 1 reacted and died, 9 did not react.

Taking these figures out according to percentages,

	Reactions.	Deaths.	No Reaction
	%	%	%
The injection of susceptible horses with horse virus caused	100	75	Ni
The injection of susceptible horses with mule virus caused	44	44	56
The injection of susceptible mules with mule virus caused	37	9	63

Conclusions.

1. Horse virus injected into susceptible horses caused the greatest percentage of reactions.
2. The injection of mule virus is more fatal for horses than for mules.
3. The least mortality was caused by the injection of mule virus into mules.

"D." Variability.

5th Gen.	M. 2539—14 % R. (7 animals).	
6th Gen.	M. 2495—66 % R. (3 animals).	
7th Gen.	M. 3288—30 % R. (10 animals).	M. 3434—27 % R. (11 animals).
8th Gen.		M. 3565—Nil R. (4 animals).

Conclusions.

The virulency of the strain is but slightly pronounced, yet the influence of an animal through which it passed becomes evident in the second generation and in the last generation; in the former increasing and in the last disappearing completely.

*"E." Influence of dose and manner of injection.**Injections of virus of type 2539.*

1. In the dose of 2 c.c. subcutaneously, 5 reacted and recovered, 5 reacted and died, 12 did not react.
Of these 12 non-reacters, 1 was tested later by subcutaneous injection of 5 c.c., this animal reacted and recovered; 10 were tested subcutaneously with 2 c.c. virus, 5 reacted and recovered, 5 reacted and died.
One tested with 20 c.c. intrajugularly, reacted and died.
2. In the dose of 5 c.c. subcutaneously, 1 did not react. When tested later by intrajugular injection of 10 c.c., this animal reacted and died.
3. In the dose of 50 c.c. subcutaneously, 2 reacted and died.
4. In the dose of 2 c.c. intrajugularly, 1 reacted and died, 3 did not react.
Of these 3 non-reacters, 2 were tested later by a subcutaneous injection of 3 c.c., 1 reacted and recovered, 1 reacted and died.
One was tested with 10 c.c. intrajugularly, and reacted and died.

EXPERIMENT
With Mule Virus, Type 2694,

HORSE 1087, TZANEEN

I Generation,
II Generation,
III Generation,
IV Generation.

Gen.	Date of Injection.	Species.	No.	VIRUS.				Reaction from.	Incub. (days)
				Inj.	Orig.	Gen.	Date.		
V	1907. April 4	Mule	2694	S. 2	2415	4	1907. Jan. 2	1907. April 9 to 18	5
VI	1908. Feb. 26	"	3359	"	2694	5	April 11	1908. March 5 to 12	7
VII	April 15	Horse	3385	"	3359	6	1908. March 9	—	—
	" 22	"	3464	"	"	"	" 9	April 30 to May 9	8
	" 23	"	3484	"	"	"	" 9	—	—
	" 27	"	3478	"	"	"	" 9	—	—
	May 8	"	3264	"	"	"	" 11	—	—
	" 21	—	—	I. 2	"	"	" 11	May 26 to 31	5
	" 8	Horse	3270	"	"	"	" 11	May 14 to 21	6
	June 15	"	3626	S. 2	"	"	" 11	—	—
	" 15	"	3356	S. 10	"	"	" 11	—	—
	" 15	"	3364	S. 50	"	"	" 11	—	—
	" 15	"	3406	S. 20	"	"	" 11	June 28 to July 3	13
	" 15	Donkey foal	3578	I. 10	"	"	" 11	June 24 to 30	9
	" 19	Mule	3564	S. 20	"	"	" 11	June 23 to July 1	4
	" 19	"	3650	I. 20	"	"	" 11	June 23 to 29	4
	July 4	Donkey foal	3711	I. 5	"	"	" 11	July 16 to 27	12
	" 4	"	3712	"	"	"	" 11	" 18 to 30	14
	" 31	"	3661	"	"	"	" 11	Aug. 4 to 17	4
	" 31	"	3676	"	"	"	" 11	" 3 to 16	3

No. 5.

Tzaneen strain, fifth generation.

(ORIGIN).

Mule 1965.
 Mule 1996.
 Mule (Natal) 116, 1897.
 Mule 2415.

Re-action.	Incub. + R.	Result.	Tested.	VIRUS.				Result.	Remarks.
				Inj.	Orig.	Qual.	Gen.		
9	14	R & D	1 1907. April 23	S. 2	2406	OTBLPW	—	No R	Simult. 100 c.c. serum.
			2 May 14	S. 5	2709 2148 2168	Ord. Tzn. Bul.	— — —	„ „ „	
			1908. May 7	S. 2	3494	P.P.R.	1	Slight R	
8	15	Recovd.	— May 7	„	3501	CD VI	1	„	
—	—	Irreg. R	— April 27	„	2891	Tzn.	4	R †	
9	17	R & D	— —	—	—	—	—	—	Was killed later.
—	—	Irreg. R	— May 14	S. 2	2415	„	4	R †	
—	—	No R	1 May 21	„	3361	„	7	No R	Simult. 200 c.c. serum. After 3 days 300 c.c. serum. After 3 days 200 c.c. serum.
			2 June 26	„	3509	„	8	Reaction	
			3 July 29	„	3749	„	21	„	
—	—	No R	— —	—	—	—	—	—	
5	10	R †	— —	—	—	—	—	—	
7	13	„	— —	—	—	—	—	—	
—	—	No R	1 July 15	S. 2	3557	Tzn.	8	R ?	After 3 days 200 c.c. serum. Simult. 200 c.c. serum.
			2 „ 23	S. 3	Poly. VI	—	—	R †	
—	—	R ?	— „ 21	S. 2	3398	Tzn.	6	Reaction	
—	—	No R	— „ 15	„	3570	„	8	R †	
5	18	R †	— —	—	—	—	—	—	
6	15	Recovd.	— —	—	—	—	—	—	
8	12	Recovd.	— July 31	S. 2	3699	Tzn.	6	No R	
6	10	R †	— —	—	—	—	—	—	
11	23	Recovd.	— —	—	—	—	—	—	
12	26	„	— —	—	—	—	—	—	
13	17	„	— —	—	—	—	—	—	Died of poverty, Aug. 20, 1908.
13	16	„	— —	—	—	—	—	—	

R—Reaction.

R & D—Reaction with dikkop.

R †—Reaction and died.

EXPERIMENT

TYPE

IV Generation,
V Generation,
VI Generation,
VII Generation,

Gen.	Date of Injection.	Species.	No.	VIRUS.				Reaction from.	Incub. (days)
				Inj.	Orig.	Gen.	Date.		
VIII	1908. May 12	Horse	3506	S. 2	3464	7	1908. May 8	1908.	—
	June 3			I. 2	"	"	" 8	June 8 to 12	5
	May 29	Horse	3570	S. 2	"	"	" 8	" 6 to 14	8
	" 29	"	3569	"	"	"	" 8	—	—
	" 29	"	3557	S. 5	"	"	" 8	June 9 to 16	11
	" 29	"	3579	S. 10	"	"	" 8	—	—
	" 29	"	3516	I. 2	"	"	" 8	" 2 to 8	4
	June 11	Mule	3592	I. 10	"	"	" 8	" 18 to 26	7
	" 11	Donkey foal	3576	"	"	"	" 8	—	—
	" 15	Horse	3625	S. 2	"	"	" 8	—	—
	" 15	"	3629	"	"	"	" 8	—	—
	" 15	"	3632	"	"	"	" 8	—	—
	" 19	"	3603	I. 0·02	"	"	" 8	—	—
	July 1	"	3644	S. 2	"	"	" 8	—	—
	" 21	"		I. 2	"	"	" 8	July 27 to Aug. 3	6.
	" 4	Horse	3541	S. 10	"	"	" 8	—	—
	" 21	"		I. 2	"	"	" 8	—	—
	Aug. 14	Mule	3793	S. 5	"	"	" 8	Aug. 20 to 29	5.
	" 14	"	3810	"	"	"	" 8	—	—
	" 14	Horse	3819	"	"	"	" 8	" 21 to 31	6.
" 14	"	3822	"	"	"	" 8	—	—	
" 14	"	3823	"	"	"	" 8	—	—	

No. 5—(continued).

2694.

Mule 2415.
 Mule 2694.
 Mule 3359.
 Horse 3464.

Re- action.	Incub. + R.	Result.	Tested.	VIRUS.				Result.	Remarks.
				Inj.	Orig.	Qual.	Gen.		
(days)	(days)		1908.						
—	—	No R	—	—	—	—	—	—	
4	9	R †	—	—	—	—	—	—	
8	16	"	—	—	—	—	—	—	
—	—	Irreg. R	—	—	—	—	—	—	
7	18	R †	—	—	—	—	—	—	
—	—	Irreg. R	1	June 26	S. 2	3361	Tzn.	7	Irreg. R
—	—	"	2	" 26	"	"	"	7	No R
—	—	"	2	July 29	"	3749	"	21	R †
—	—	"	—	—	—	—	—	—	Simult. 200 c.c. serum.
6	10	R †	—	—	—	—	—	—	
8	15	Recovd.	—	June 30	S. 3	Poly. VI	—	—	R †
—	—	Irreg. R	—	—	—	—	—	—	
—	—	R ?	—	July 4	S. 2	3361	Tzn.	7	R †
—	—	"	—	" 4	"	"	"	"	
—	—	No R	1	" 4	"	3433	"	8	No R
—	—	"	—	" 21	I. 2	"	"	"	R †
—	—	"	—	" 15	S. 2	3557	"	"	"
—	—	"	—	—	—	—	—	—	Simult. 300 c.c. mule serum.
—	—	R ?	—	—	—	—	—	—	
7	13	R †	—	—	—	—	—	—	
—	—	No R	—	—	—	—	—	—	
—	—	"	—	Aug. 11	S. 1	3557 3270	Tzn.	8 7	R
—	—	"	—	—	—	—	"	—	"
10	15	Recovd.	—	Sept. 10	S. 3	—	Polyv. VI	—	No R
—	—	"	—	—	—	—	—	—	Simult. 100 c.c. serum.
—	—	No R	—	" 10	"	—	"	—	R †
11	17	R & D	1	Sept. 9	"	—	"	—	No R
—	—	"	—	—	—	—	—	—	Simult. 300 c.c. serum.
—	—	No R	2	Oct. 14	T.2250	3934	P.P.R.	—	No R
—	—	"	1	Sept. 9	S. 3	—	Polyv. VI	—	R †
—	—	"	1	" 1	"	3793	Tzn.	8	No R
—	—	"	—	—	—	—	—	—	After 24 hrs. 300 c.c. serum.
—	—	"	2	" 15	S. 2	—	Polyv. VI	—	Simult. 300 c.c. serum.

R—Reaction.

R?—Doubtful reaction.

R†—Reaction and died.

R & D—Reaction with dikkop.

EXPERIMENT

TYPE

VI Generation,
 VII Generation,
 VII Generation,
 VII Generation,
 VII Generation,
 VII Generation,
 VII Generation,
 VII Generation,

Gen.	Date of Injection.	Species.	No.	VIRUS.				Reaction from.	Incub. (days)
				Inj.	Orig.	Gen.	Date.		
VIII	1908. July 1	Horse	3726	S. 2	3270	7	1908. May 20	1908. July 8 to 14	7
	" 1		3729	"	3406	"	June 30	" 7 to 12	6
	" 15		3741	"	3356	"	July 3	—	—
	" 1		3717	"	3564	"	June 28	—	—
	" 21		I. 10	"	"	"	" 28	July 27 to Aug. 3	6
	Aug. 14	Horse	3738	S. 3	"	"	" 28	—	—
	" 14		3830	"	"	"	" 28	Aug. 23 to 31	8
	July 1		3720	S. 2	3650	"	" 28	July 6 to 10	4
	" 4		3265	"	"	"	" 28	" 8 to 12	4
	" 22		3754	I. 5	3711	"	July 21	July 28 to Aug. 6	6
	" 29	"	3682	S. 5	"	"	" 21	—	—
	" 22	"	3756	S. 5	3712	"	July 21	July 29 to Aug. 4	6
	" 22	"	3757	I. 5	"	"	" 21	July 29 to Aug. 2	6