if injected at one time. At 11:00 A. M. and at 2:14 P. M. the rectal temperature was 102.6°F., the pulse rate 170.

II. *Rhesus Female No. 217;* weight 4400 gm., very "regular" in menstruation though never ovulating. Bleedings January 16, February 11, March 7, April 3, 1935. Injected on March 5 (10:35 A. M. to 3:34 P. M.), with a total of only 4.4 units of pituitrin and 2.51 grains of nembutal. At 11:30 the rectal temperature was 100°F., the pulse rate 140.

III. *Bonnet Female (Macaca radiata) No. 147;* adult, castrated in February, 1932, body weight 3660 gm. She had received 100 R.U. estrin (Amniotin. Squibb) daily for more than 3 months until March 8, 1935. Injection of pituitrin was made on March 12 on the theory that 4 days after cessation of estrin injections uterine bleeding might be precipitated with the 15 units of pituitrin used. Bleeding did not occur until March 25.

In none of these injected animals was uterine bleeding hastened by the injections of 4.4, 15 or 454 units of pituitrin.

The usual anuria accompanied the injections.

8987 C

Virulence in Relation to Early Phases of the Culture Cycle.

FRIEDA OFFENBACH. (Introduced by C.-E. A. Winslow.)

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In view of the many physiological characteristics of bacteria which have been found to vary in different phases of the culture cycle, it was thought worth while to see if virulence for the animal host would also show correlation with "physiological youth."

A strain of *Salmonella enteritidis* (pathogenic for mice by mouth) was cultivated in a one per cent peptone medium continuously aerated with the apparatus devised in this laboratory by H. H. Walker. The lag-period of this organism in this medium was one hour and the period of logarithmic increase extended from the second to the sixth hour with decline setting in after the eighth hour.

Cultures in the first, fifth and sixth hours were used for the intra-abdominal injection of 95 mice, one cc. amounts containing either 10,000 or 100,000 organisms being employed. All mice died in periods varying from one to 15 days. The mean time of survival was as follows:

Organisms Injected	One-hour Cultures	5-hour Cultures	6-hour Cultures
	days	days	days
10,000	5.9	6.1	6.5
100,000	4.6	—	4.2

There seems no evidence of any appreciable difference in virulence in the early phases of the culture cycle.

8988 P

Endocrine Control of the Scrotum and a "Sexual Skin" in the Male Rat.

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The "sexual skin" of the female is known to be under the control of estrogenic substances, particularly in primates. "Sexual skin" differentiation is much less clear cut in the male. The purpose of this preliminary article is to point out (1) that "sexual skin" exists in the male and is controlled by the male hormone, (2) that the development and maintenance of the scrotum is also dependent upon the male hormone.

In the adult male white rat the ventrocaudal portion of the scrotal sac is distinguished by its wrinkling and reddish-yellow color. This skin covers the region where a functional gubernacular ligament joins the caudal end of the epididymis to the cremasteric muscle. Proof of the endocrine control over this characteristically-pigmented and differentiated bit of skin and over the whole scrotal sac is adduced from the following:

(1) In 10 castrated and in 7 hypophysectomized adult male rats the "sexual skin" atrophied, the reddish-yellow hue faded, and in some cases a curled yellow layer sloughed off this region, exposing an underlying skin which was not grossly different from that of adjacent regions. The whole scrotum lost its pouch form and tended to resemble the condition in the female rat in that the skin of this region was bound rather closely around the pelvis and tail.

(2) Atrophy of specialized skin and atrophy of the scrotum as a whole are not a result of the removal of the mechanical weight and pressure of the testes. Replacement of the testes in 2 rats by paraffin pellets of weight, size and shape equivalent to the testes did not prevent post-castration atrophy. In one animal the scrotal skin became taut and cracked open over the "paraffin testis".