Obviously paralysis is a convenient but limited criterion of interference and interrelationships of these agents require extensive investigation using other measures of interference. Likewise, the effect of route of inoculation needs to be explained, presumably in terms of pathogenesis of the disease in mice. Such studies might also explain the meaning of the effect of time. The experiments suggest that those viruses which do interfere do so by preventing invasion of central nervous system by A14 virus, since there has been no evidence that the evolution of paralysis was modified once it occurs. The data have, for example, been compared using Gard's method (4) in which the reciprocal of incubation interval is used without evidence that paralysis was significantly delayed.

It is of some interest that the interfering effect of Group B viruses was of longer duration than that due to Group A viruses. It was quite similar to values reported elsewhere(5) when a poliovirus rather than A14 was used as challenge. The similarity of the disease in mice caused by the A14 Coxsackie and Type 2 poliovirus matches the similarity of the interference.

Summary. 1) Young adult mice were infected simultaneously and at various intervals with Coxsackie Group A and B viruses. Under certain circumstances, representatives of both groups interfered significantly with adult-mouse-adapted A14 strain, resulting in fewer mice becoming paralyzed. 2) The grade of interference depended on time interval between injection of interfering and challenging virus, and on route of inoculation. No interference could be observed when both viruses were injected by different routes.

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Duration of Pseudopregnancy in Normal and Uterine-Traumatized Hamsters. (24847)

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Numerous studies have indicated that uterine trauma in pseudopregnant rats and certain other mammals results in prolonging pseudopregnancy and that, in rats at least, extent of prolongation is dependent on number of deciduomata induced. This study was designed to ascertain whether or not pseudopregnancy in golden hamsters may be affected similarly.

Methods. Seventy-one cyclic female hamsters, most of which had exhibited one previous pregnancy, were sterile-mated and on the fourth night thereafter, if neither vaginal nor psychic estrus was manifest, 2, 4, or 15 interrupted sutures were sewn into each uterine horn. Nightly thereafter vaginal smears were observed and willingness to mate was tested. Vaginal smears and mating responses of 52 unoperated pseudopregnant animals also were observed nightly. Pseudopregnancy in all instances was considered as having terminated when psychic estrus was again exhibited. Twenty additional animals were employed in determining the optimal day for traumatization in order to induce maximum uterine responses. At termination of pseudopregnancy the traumatized horns were examined grossly and microscopically for deciduomata. All hamsters were from the LSU colony, which has been inbred since 1943.

TABLE I. Duration of Pseudopregnancy in Normal and Traumatized Hamsters.

Group	No. of animals	Duration in days 7	8	9	10	11	12	13	14	Mean duration in days*
Normal	52		6	40	5				1	9.08 ± .84
2 loops	22		3	17	2					8.95 ± .48
4 "	22		3	14	4	1				9.14 ± .71
15 "	27	1	5	11	5	2	2	1		9.44 ±1.35

* ± stand. dev.

Results. The duration of pseudopregnancy in the several groups is indicated in Table I. Differences between the means are not statistically significant. The observed duration of normal pseudopregnancy is in agreement with that reported earlier by Deanesly(1).

At the end of pseudopregnancy gross examination of horns with 2 or 4 sutures revealed enlargements at each site of trauma. Horns with 15 sutures were massive, exhibiting many enlargements which encroached on one another. Microscopic examination revealed the enlargements to be the result principally of stromal hypertrophy, often accompanied by evidence of an incomplete, localized decidual response. In some horns the uterine lumen was much reduced and displaced; in others, large detached masses of necrotic tissue occupied the uterine canal. Vaginal smears were not always estrual at the mating terminating pseudopregnancy.

Discussion. The ineffectiveness of uterine trauma in prolonging pseudopregnancy probably is attributable to induction of insufficient competent decidual tissue. No quantitative comparisons were made of the decidual responses elicited among the experimental groups since no statistically demonstrable prolongation had been effected, and the deciduomata were insufficiently differentiated to permit quantitative study. The ineffectiveness of uterine trauma in prolonging pseudopregnancy in mice also has been reported(2).

Conclusion. An 8 to 10-day pseudopregnancy period occurs in most hamsters, the 9-day interval predominating. Hamsters rendered pseudopregnant by sterile mating do not exhibit a statistically significant prolongation of pseudopregnancy following uterine trauma, however massive, by interrupted sutures. The observations indicate species differences in luteal function in pseudopregnant hamsters as contrasted with rats.

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ACTH Releasing Activity *in vivo* of a CRF Preparation and Lysine Vasopressin.* (24848)

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This laboratory has previously reported (1) purification of a substance of hypothalamic and/or neurohypophysial origin, which stimulates release of ACTH from anterior pituitary tissue surviving *in vitro*. From evidence then available, it was proposed that the hypophysiotropic activity observed was due to a substance with characteristics of a peptide and different from any of the several known neurohumors investigated.† It was also concluded that any physiological significance of these findings obtained with simple

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† On basis of similar results obtained independently, Saffran and Schally proposed the name Corticotrophin Releasing Factor (CRF) for this substance.