H. R. Henze, professor of chemistry, University of Texas, and Dr. R. W. Bost, professor of chemistry, University of North Carolina.

THE annual dinner of trustees, faculty and staffs of the New York Medical College and Flower Hospital and the New York Ophthalmic Hospital was held at the Waldorf-Astoria Hotel on March 18. The speakers were: Dr. Arvid Lindau, professor of pathology and bacteriology at the University of Lund, Sweden, and Dr. Fordyce Barker St. John, professor of clinical surgery at the College of Physicians and Surgeons of Columbia University. Dr. Lindau's topic was "The Pathogenesis of Gastric Ulcer." Dr. St. John gave an illustrated lecture on "The Surgical Treatment of Gastric Ulcer." Dr. Harold D. Harvey, associate in surgery at the College of Physicians and Surgeons, assisted Dr. St. John. In connection with the Swedish Tercentenary of the settling of New Sweden on the Delaware River, a second lecture was given on May 2 in the Heckscher Foundation Theater by Dr. Einar Hammarsten, professor of chemistry at the Carolingian Medical University at Stockholm. His subject was "The Duodenum and Its Associates, the Important Hormonal Centrum." A recent bequest of $100,000 has been granted to the Fifth Avenue Hospital through the will of the late Adolph L. Gondran. Legacies of $10,000 each also have been received recently by the Flower Hospital and the New York Medical College and Flower Hospital through the will of Mrs. Sophie M. Gondran.

FOLLOWING the falling of possibly a ton of plaster and timber in an unoccupied classroom in University Hall at the University of Illinois in January, inspection determined that other parts of the building were unsafe and it was closed until a complete examination could be made. Later the trustees closed the building permanently. Governor Henry Horner, after a personal inspection trip, agreed with the trustees' action and indicated that he would include in his call for a contemplated special session of the State Legislature a request for funds to build a building, or buildings, to duplicate the floor area of the vacated building. The trustees are conducting a study to determine whether one large new building will meet the needs of the university, or whether it would be more expedient to build two smaller structures.

DISCUSSION

A COLONY OF ALBINO RATS EXISTING UNDER FERAL CONDITIONS

OTHER than brief references[1,2] of uncertain significance, the only observation of albino rats existing in a feral state appears to be that of Svihla.[3] Donaldson's attempts to establish wild colonies of white rats met with little success.[4,5,6] So it seemed of unusual interest to find a large colony of albino rats which had been well established for a number of years in a dumpground near Missoula, Montana. These rats were considered a health menace, so measures were taken to exterminate them.

The albino rats inhabited an area of about an acre and a half which was built up as a shelf of debris filling in a back-water slough along a river bank. Earth and gravel were dumped on the debris making a thoroughly honeycombed fill some twenty feet in depth. The south side of the shelf sloped to the river, and over this bank the daily city refuse was dumped. Thus food, water and shelter were provided for the rats.

[1] S. Moss, *Mag. Nat. Hist., London*, 9: 182–185, 1836.
[2] J. Rodwell, "The Rat," G. Routledge and Co., London, 1858.
[3] A. Svihla, *Am. Nat.*, 70: 403–404, 1936.
[4] H. H. Donaldson, *Jour. Acad. Nat. Sci. Phila.*, 15: 365–369, 1912.
[5] H. H. Donaldson, Year Book, Carnegie Institution, Washington, 15: 200–201, 1916.
[6] H. H. Donaldson, "The Rat," 2nd Ed., Wistar Institute, Philadelphia, 1924.

The animals were first noted in large numbers at the dumpground in the summer of 1935. Their source is obscure, but it is presumed that some student from the University of Montana in Missoula released white rats at the dump as a means of disposal. By the summer of 1936 the rats had proliferated so remarkably that a poisoning campaign was instituted, which served to cut down their numbers. The program was not extensive enough to destroy the colony, so, by the following spring (1937) they were very numerous. We have estimated that 2,000 rats were feeding at one time.

The winter habits of these rats have not been observed. Since the river freezes over each winter, it is assumed that the rats' water supply was from that welling up from beneath the fill. The depth of the bank was ample to permit them to remain below frost line yet far enough above water to be dry. There was food enough for winter storage and new refuse was added daily. It is possible that the newly dumped refuse afforded a source of heat for the colony. In any event, the colony was observed to survive two winters, during which time the outside temperature was as low as 25 degrees below zero (Fahrenheit), and several protracted sub-zero spells were recorded.

During the summer the rats fed early in the morning and in the evening, remaining in their burrows through the heat of the day. They had established

several large feeding places and a network of runs to these from the burrows. Apparently they seldom left the beaten paths, and bait placed only a few inches off the route was never taken. Even the addition of codliver oil to the bait had little attracting power. It seemed necessary for the animals to come directly upon the food, almost touching it, before they were aware of its presence.

The animals exhibited some rather peculiar responses to the poisons used during the campaign. The usually recommended poisons[7,8] (prepared rodent poison and red squills) were found to be of the least value. This might be explained by the fact that the procedure had to be varied according to the habits of the animals. Barium carbonate, with meat and codliver oil, proved to be an efficient poison and was invariably effective on control rats in 8 to 12 hours. The recommended mixture of red squills had no effect whatever on controls. When mixed in higher percentages the rats would not take the bait satisfactorily. Strychnine-treated oats, prepared as rodent poison by the U. S. Biological Survey Station in Boise, Idaho, and distributed by the local county agent, were without effect on control rats. The most satisfactory poison was that prepared in the Missoula Health Department laboratory, consisting of strychnine-treated oats sweetened with Karo syrup and saccharin. This was safe to use and invariably effective within a few minutes.

Throughout the course of the extermination campaign rats were examined for signs of disease. Inspections for tularemia and plague lesions were negative. Fleas were rare. Liver cysts, in which scoleces were demonstrable, were found in several rats, and a few animals were seen with crusted eyes and the symptoms of the common mouse-pneumonia. A relatively large number showed hair loss, which might be the result of a diet deficiency, or perhaps due to parasitic infection. A large number, particularly among the younger rats, appeared to be rachitic.

The observations on this colony seem to indicate that albino rats, although supposedly weakened by years of domestication, are able to maintain themselves outdoors and to resist extermination. The absence of predatory animals, particularly the gray Norway rat, is probably an important factor in explaining the survival of the colony. It seems apparent, then, that food and water, underground shelter and absence of predatory animals comprise an environment suitable to the continued existence of albino rats under non-domestic conditions.

[7] W. C. Rucker, in "The Rat and its Relation to the Public Health," Gov't. Printing Office, Washington, pp. 153–162, 1910.

[8] J. C. Munch, J. Silver, E. E. Horn, *Jour. Am. Pharmaceut. Asn.*, 19 (8): 837–840, 1930.

SUMMARY

(1) A colony of albino rats existing under non-domestic conditions has been observed in Montana. The colony is known to have survived two winters.

(2) Some peculiarities in their habits and responses to common poisons are pointed out.

(3) Albino rats appear to be able to survive extreme weather conditions and to resist extermination from causes such as disease and unfavorable diet.

(4) The absence of predatory animals, particularly the gray Norway rat, is probably an important factor in the survival of the colony.

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CENTRIPETAL DRIFT: A FALLACY IN THE EVALUATION OF THERAPEUTIC RESULTS

THE fallacy to be described here has been observed twice in recent numbers of carefully edited medical journals,[1] and for that reason alone deserves the attention of investigators. It is likely that a search of the literature of therapeutics would yield numerous instances.

Using an instrument whose readings are affected by large chance errors, an investigator examines, say, 100 subjects. He selects the 10 people whose performance on the test happens to be the poorest, and gives them some kind of treatment. Next day he reexamines the 100 subjects. The average performance of the 100 is exactly what it was the day before, but the 10 who did most poorly then are now found to have improved strikingly.

To illustrate the principle involved, one may take 10 playing cards numbered consecutively from 1 to 10. One shuffles and distributes the cards among 10 people, here identified by the letters A to J:

A	B	C	D	E	F	G	H	I	J
3	7	4	6	2	9	8	10	1	5

One may express sympathy for A, E and I, who did so poorly on the test, tell them it must be the lack of vitamins in their diets and administer any desired treatment, such as the laying on of hands. Then the cards are again shuffled and distributed:

A	B	C	D	E	F	G	H	I	J
7	2	5	6	8	3	9	1	4	10

This time B, F, and H happen to hold the low cards,

[1] H. Jeghers, *Jour. Am. Med. Asn.*, 109: 756, 759, September 4, 1937. M. B. Corlette, J. B. Youmans, H. Frank and M. G. Corlette, *Am. Jour. of the Med. Sciences*, 195: 58, 59, 62, 63, January, 1938.