CONCLUSIONS.

(1) These experiments emphasize the liquefying action of NaCl and the solidifying effect of $CaCl_2$ brought out previously.[1]

(2) They also indicate that Na and K can penetrate the Amœba much more effectively than Ca or Mg.

(3) Of the four salts studied, only NaCl has a disintegrative action upon the surface.

(4) The tearing experiments indicate that Ca and Mg, which have very little effect on the intact Amœba, enter the cell easily through a tear. The action of Ca is localized, and the Amœba rids itself of the dead portion by an active "pinching-off" process. Mg, on the other hand, tends to diffuse throughout the cell, and is therefore extremely toxic. These findings substantiate the results obtained in the injection experiments.

(5) To antagonize toxic effects of NaCl or KCl, $CaCl_2$ must be present in a non-lethal dose.

183 (2706)

The sex ratio in litters of mice classified by the total amount of prenatal mortality.

By E. CARLETON MacDOWELL and ELIZABETH M. LORD.

[*From the Department of Genetics, Carnegie Institution of Washington, Cold Spring Harbor, Long Island, N. Y.*]

From studies of the normal sex ratio of living young and of abortions and still-births in man and the rat, King[1] and others have concluded that the male fœtus is less viable than the female. If this is true for the entire period of gestation there should be a negative correlation between the amount of prenatal mortality and the sex ratio. From counts of the corpora lutea of pregnancy of about 20 mice (sectioned material) Parkes[2] concludes that this is the case.

[1] King, H. D., *Anat. Record*, 1921, xx, 321.

[2] Parkes, A. S., *Proc. Roy. Soc.*, 1923, xcv, 551.

Data showing the percent of prenatal mortality for 445 litters of mice have been obtained by subtracting the number of young born from the number of ova as indicated by the number of corpora lutea. In the last week of pregnancy the corpora lutea corresponding to the litter *in utero* are strikingly differentiated as large hyperemic bodies protruding from the surface of the otherwise pale colored ovary. These corpora were counted in the living animals under a low power binocular microscope by means of an operation which has been shown[3] to have no influence upon the fœtuses *in utero* or upon the subsequent reproduction. Table I gives the total number of males and females in litters classified, according to the per cent of prenatal mortality, into five classes, each 20 per cent in width. The sex ratio shows no tendency to decline as the percentage of prenatal mortality increases; the highest ratio is found in the next to highest prenatal mortality class. The small numbers in the fifth class indicate that its low sex ratio is probably not significant. These results indicate that when the total prenatal mortality is revealed there is found no selective elimination of males.

TABLE I.

% prenatal mortality	0-19.9		20-39.9		40-59.9		60-79.9		80-99.9	
	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
Number of mice born	497	483	362	362	269	262	120	116	21	33
Males per 100 females	102.9		100.0		102.7		103.4		63.6	

[3] MacDowell, E. C., *Anat. Record*, 1924, 329.