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Feeding experiments with fat-free food mixtures.

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The question as to whether fats are, like proteins and carbohydrates, in some measure indispensable components of the diet has never been adequately determined. Stepp[1] has lately maintained that the so-called "lipoids," in distinction from true fats, are necessary for adequate nutrition. His experiments were conducted with mice. Following the methods employed by the writers[2] it has been possible to induce rats to grow at a normal rate with food mixtures containing only purified proteins, carbohydrates and inorganic salts. The problems suggested by the possibilities of this method of investigation are obvious.

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The masking of a Mendelian result by the influence of the environment.

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As reported (Oct., 1911) a mutant of *Drosophila* appeared with a dominant sex-linked character, viz., abnormal abdomen. Typical Mendelian ratios are found in the F_2 offspring if an abundance of food and of moisture is present. As the culture grows older the flies that emerge later gradually change over to the normal type. As a result the Mendelian ratio completely disappears from the surface phenomena. That Mendelian inheritance has actually occurred, but is temporarily masked, is shown by testing the F_2 flies, when the expected number is found (under wet

[1] Stepp, *Zeitschrift für Biologie*, 1911, LVII, p. 135.

[2] Osborne, T. B., and L. B. Mendel, "Feeding Experiments with Isolated Food-Substances," Carnegie Institution of Washington, Publication 156, 1911.