Extracts from heart, smooth muscle, striated muscle, brain, lung, liver, kidney, testes, ovary, oviduct, and pancreas proved to be very active. Extracts of spleen and bone-marrow are effective, but not more so than extracts of other tissues. Liver, and to a less extent kidney, differ somewhat in their growth-promoting action from other organs. Extracts from these two organs show a marked initial stimulation followed after three days by a slowing down of the rate of growth and degeneration of the cells resulting in a complete stoppage of growth by the fourth to sixth day.

The growth-promoting action of all extracts used (with the exception of liver and kidney extracts) varies somewhat within relatively small limits and is extremely pronounced. A comparison of the cell growth activating effects of adult tissue extracts with those of embryonic extract of the same concentration shows that under our experimental conditions the growth-promoting properties of extracts of adult tissues are definitely greater than those of embryonic tissues. Extracts of brain and heart, for example, increase the growth rates of fibroblasts two to three times as much as embryonic extract.

It can be concluded that the ability to stimulate growth of cell colonies *in vitro* is not a specific property of extracts of proliferating tissues, but that growth-stimulating substances are found in abundance in most animal tissues and organs.

We wish to mention here that our work confirms the earlier, much overlooked experiments of Carrel[4] and Walton[5] who already in the years 1913 and 1914 indicated that extracts of certain adult tissues stimulate cell growth somewhat.

Details of our experiments are being published elsewhere.

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[1] *Erg. Anat.*, **31**, 125 (1934).
[2] "La Vie cellulaire hors de l'organisme" (Doin and Cie., Paris, 1937).
[3] "Tissue Culture" (Methuen and Co., London, 1935).
[4] *J. Exp. Med.*, **17**, 14 (1913).
[5] *J. Exp. Med.*, **20**, 554 (1914).

Pasteur Reaction in the Lactic Acid Bacteria

THE lactic acid bacteria show three well-defined types of Pasteur reaction which can be correlated with the respiratory mechanisms of the three main groups into which these bacteria (cocci and rod forms) can be classified.

	Group I	Group II	Group III
Catalase	0	0	0
Respiration	0	+	+
Cyanide inhibition	−	0	+
Hydrogen peroxide formation	−	+	0
Methylene blue stimulation	+	+	0
Glycolysis aerobic	+++	++	+++
„ anaerobic	+++	+++	+

The experiments were made in the Barcroft-Warburg apparatus.

Organisms in Group I cannot use molecular oxygen to oxidize sugars, etc.[1], although 'protoplasmic respiration' (autoxidation) can be detected. There is correspondingly no Pasteur effect. Lactic and pyruvic acid dehydrogenases are present in organisms of Group II[2] and an appreciable Pasteur effect is noticeable.

Group III (heterofermentative) types are peculiar in that apparently a negative Pasteur effect is present. This group grows almost equally well anaerobically and aerobically, so that its respiratory mechanism would not appear to be a very efficient means of obtaining energy for growth. Considerable amounts of acetic acid are produced aerobically, but in addition more lactic acid (estimated chemically) is produced aerobically than anaerobically. This is believed to be a very rare, if not a unique, phenomenon.

These findings form the basis of a classification which will be published shortly.

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[1] Davis, *Biochem. Z.*, **267**, 357 (1933).
[2] Davis, *Biochem. Z.*, **265**, 90 (1933).

Mauicetus: a Fossil Whale

IN 1937, I published in the *Transactions of the Royal Society of New Zealand* an account of a portion of a skull of an extinct whale found in the Upper Oligocene of New Zealand. To this skull I gave the generic name of *Lophocephalus*. Soon after the appearance of the article, my attention was directed to the fact that this same title had been bestowed already on three animals of widely different groups, namely, on a gregarine, on a beetle and on a fish; hence it is necessary to substitute another generic name for this whale. I propose to use the name *Mauicetus*. This name definitely associates the whale with New Zealand, for the Maoris have many legends about that mythical demi-god Maui.

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Ancient Egyptian Astronomy

IN a recent communication to NATURE[1], Dr. H. Chatley points out that in my former communication[2] I did not take account of a whole group of important papers of well-known scholars, and he adds some remarks on stars and planets in ancient Egypt. I think Dr. Chatley must have overlooked my first sentence, where I speak on "Egyptian *calculating* astronomy". We were, in fact, speaking on entirely different problems.

Dr. Chatley even makes statements concerning the historical estimation of the Egyptian "theoretical" astronomy (*sit venia verbo*). I want to take up this problem, for it seems to me of importance to prevent misstatements taking up a firm position also in this field from the very beginning. Dr. Chatley says: "It seems very doubtful if one can safely attribute much mathematical ability to the ancient Egyptians on the basis of the demotic texts to which Dr. Neugebauer refers. From the time of the foundation of the Museum at Alexandria, Greek methods appear to have been adopted." I do not know who attributed to the ancient Egyptians in this connexion "much