IN MEMORIAM.

WALTER MYERS.

ANOTHER name has been added to the death-roll of brave workers who for the love of science and the welfare of mankind have gone forth to investigate a most fatal disease.

Walter Myers was born in Birmingham, where he received his preliminary education. In the year 1888 he entered London University, and in 1890 the University of Cambridge. In 1892 he proceeded to the degree of B.Sc. (London) and of B.A. (Cambridge), and two years later entered upon his medical studies at St Thomas's Hospital. In 1897 he qualified as M.B., B.C. (Cambridge), M.R.C.S., and received the degree of M.A. at Cambridge. From October 1897 to October 1898 he worked under the late Professor Kanthack in the Pathological Laboratory of the University of Cambridge, after which he studied under Professor Ziegler at Freiburg, and more especially under Professor Ehrlich in Berlin, and subsequently in Frankfurt. The direction he took in his researches was greatly influenced by Kanthack and Ehrlich.

The experimental researches of Walter Myers relate chiefly to the action of snake-venoms. In his first paper, which was published in conjunction with Dr Stephens, experiments are reported upon the action of cobra venom on the blood, both *in vitro* and *in corpore*, and also upon the neutralising effects of antivenomous serum. It was found that the haemolytic effect of venom was arrested by the serum, the interaction of toxin and antitoxin obeying the law of multiples. The action of the serum proved to be specific. It was also found that larger doses of venom which had been rendered non-haemolytic (through mixture with antivenomous serum) nevertheless proved lethal to experimental animals.

In a paper of which a preliminary report appeared in April 1898, Myers showed that an emulsion made from the cortex of the fresh suprarenal glands of the sheep, bullock, rabbit, and guinea-pig, and also suprarenal tabloids, checked the lethal effect of small quantities of

cobra venom, and that this property was confined to this organ. The medulla of the suprarenal gland had no such effect, and it is owing to the glands in the guinea-pig being chiefly composed of medulla that the suprarenals of this animal exerted but a slight influence. In view of the lethal effect of multiples of the minimal lethal dose of venom injected together with suprarenal emulsion, Myers concluded that the latter acted only by raising the natural resistance of the body.

In May of the same year Myers published a paper on the standardisation of antivenomous serum, in which he criticises the methods hitherto employed, and describes a cheaper and more accurate method whereby the minimal lethal dose can be determined to within 20 % by the use of mice as test animals. A paper on the interaction of toxin and antitoxin, illustrated by the reaction between cobra-lysin and its antitoxin, followed next, and is the longest paper he wrote. Then followed a communication in which he discusses the theories as to the cause of the shape of non-nucleated red corpuscles.

Perhaps the most important paper published was the last one, which appeared shortly after his return from Frankfurt as a preliminary note, entitled "Immunity against Proteids." Myers injected solutions of crystallised egg-albumen, sheep's and bullock's serum-globulin, and Witte's peptone into different rabbits, and after a time noted the appearance of specific precipitins in their serum. His results strongly support the view that the production of immunity is due to a process of assimilation.

Whilst engaged upon these researches in Cambridge he was invited to become a member of the Yellow Fever Expedition of the Liverpool School of Tropical Medicine. He left England in June 1900 in company with his Cambridge colleague Dr Durham for America. They journeyed through Canada and the United States, and proceeded thence to Cuba, where they met the United States Yellow Fever Commission, which was engaged in research at Havana. In August 1900 they reached Pará, Brazil. On the 16th of December both investigators were attacked by yellow fever within a few hours of each other, the last act of Walter Myers having been to take his colleague to the hospital where he himself was soon to succumb from a malignant form of the disease. Dr Durham most fortunately recovered after a mild attack. A preliminary report of the results of the expedition has recently appeared in the *British Medical Journal* (23 February, 1901).

The medical profession of this and other countries has sustained a severe loss in being deprived of so promising a member, whilst the loss

to his family is irreparable, for he was an only son. He was cut off at the beginning of a career for which he was eminently fitted both by natural endowment and thorough special training. The work which he accomplished in the brief period which was allowed him will endure.

Though he was associated but for a brief period in the work of the Liverpool School of Tropical Medicine, it is a source of gratification to his friends to learn that his memory will be perpetuated in that Institution through the foundation of a "Walter Myers" Chair and Scholarship in Tropical Medicine.

The accompanying portrait was taken in the Pathological Laboratory at Cambridge shortly before his departure. We are indebted to Dr Louis Cobbett for kindly placing the negative thereof at our disposal.

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