

OBITUARIES

Dr. N. Miller

NICHOLAS MILLER was born in Liverpool on July 4, 1916, and died suddenly at his home in Edinburgh on May 4. Into this short span was crowded a range of experiences and the growth of a reputation that any man might envy. Such was the universality of his talents that, although a classicist at school, he entered the Imperial College of Science and Technology as an entrance scholar in chemistry and had a brilliant undergraduate career culminating in a first-class degree in 1937. After two years research in physical inorganic chemistry he obtained his Ph.D. and a Commonwealth Fund Fellowship. Characteristically, Miller decided on a change not only of scene but also of academic experience, and for two years worked in oil geology and technology in the University of California. In 1941 he joined the Suffield staff of the Canadian Department of National Defence, where his numerous qualities were speedily recognized, and a few years later he was appointed to the National Research Council staff at Montreal participating in the Anglo-Canadian Atomic Energy Project.

In July 1946 Miller was transferred to Chalk River and began those distinguished investigations on the radiation-induced oxidation of ferrous sulphate with which his name will always be especially associated. In 1947 he went as an I.C.I. Fellow to the Department of Natural Philosophy at Edinburgh and in 1949 was made senior lecturer in radiochemistry. During the past ten years he has led a small, but exceptionally effective, group of radiation chemists, and from his pen there came a succession of definitive papers dealing mainly with chemical dosimetry, or more latterly, with the dependence of radical and molecular yields on linear energy transfer. The hallmark of all Miller's work was ingenious, skilfully executed and imaginatively interpreted experimentation described in pellucid prose. His advice was consequently in much demand by national and international bodies, and Miller never shirked the extra work which these duties involved.

Those who knew Miller personally will remember his modesty and integrity, his immense capacity for friendship and his remarkably infectious and tolerant grin which accompanied many a shrewd scientific comment. It is small wonder that some of his English friends have decided to perpetuate his name in annual conferences on radiation chemistry, and that the predominantly North American membership of the sixth annual meeting on Radiation Chemistry of the Gordon Research Conferences should have adopted the following memorial resolution on August 4, 1958:

"Our meeting this year is sadly marked by the untimely death of Dr. Nicholas Miller, late senior lecturer in natural philosophy at the University of Edinburgh.

"Dr. Miller was known affectionately and admired personally and scientifically by the many friends he made in the United States in the course of his repeated travel in this country in the last several years. He participated significantly in current research in radiation chemistry. Through the keenness of his criticism, the precision of his work and the breadth of his experimental and theoretical approach, he made great and lasting contributions to the maturation

of the field. The warmth and generosity of his personality and the breadth of his interests outside his work proved a continual inspiration and joy to his colleagues and friends. His death is a loss to radiation chemistry, to science, and to those who had the good fortune to be influenced by him and his work."

F. S. DAINTON

Prof. K. V. Giri

KRAMADHATI VENKATA GIRI was born in 1907 and died suddenly on July 17 at Madras. Since 1950 he had been head of the Department of Biochemistry at the Indian Institute of Science, Bangalore.

Prof. Giri's output of original research extended over a period of more than twenty-five years and covered a wide range of biochemical topics. Phosphatases, especially of leaves, together with free and bound seed enzymes, were early subjects of study. In 1936, interesting observations were made on the amylase system of rice grain during ripening and germination.

Giri made contributions to the analytical chemistry of ascorbic acid and studied its stability under varying environmental conditions. In the early post-war years, vitamin B₁ in ground nut (*Arachis hypogea*) was found to be partly free and partly combined, and a series of studies appeared on the nutritive and vitamin value of this important crop. Giri published a long series of papers dealing with blood and nutrition, in which the results of research carried out in other countries were interpreted and applied to Indian conditions. Many of these papers added important new facts. In the field of the biochemistry of blood and tissues, Giri and his colleagues carried out much work on prothrombin and on nicotinic acid. More recently, radial or 'circular' paper chromatography was applied with considerable success to a variety of separations involving amino-acids, peptides, organic acids and vitamin preparations. For example, free *allohydroxy-L-proline* was obtained from the leaves of sandal (*Santalum album*); the compound had not previously been obtained from a natural product. Agar electrophoresis was successfully applied to the study of serum of proteins. It was found that in smallpox there was an increase in all the globulin fractions and a decrease in the albumin moiety.

Prof. Giri felt the need to spread biochemical knowledge more widely and made a hobby of devising scientific films. He wanted every medical practitioner in India to have access to clinical biochemical services, and this objective was stressed through his films, writings, radio talks and lectures.

Giri was much liked and his untimely death is a loss to Indian science. He leaves a wife and four children.

R. A. MORTON
H. R. CAMA

Dr. Marie C. Stopes

MARIE CARMICHAEL STOPES, who died on October 2 aged seventy-eight, graduated at University College, London, at the time when Prof. F. W. Oliver, Quain professor of botany, was making notable contributions in the field of palaeobotany. As a subject for research, she selected the ovule of the living cycads, and this took her to Prof. Goebel's institute in