

In all his work he displayed great ability and unflinching perseverance, together with brilliant insight and inspiration. His colleagues will always remember his patient readiness to discuss and assess the problems of the day and his helpful elucidation of critical experiments, often elegant in their simplicity, which he designed to solve them. O. W. HUMPHREYS

#### Dr. P. A. Gorer, F.R.S.

THE unexpected death of Dr. Peter Alfred Gorer on May 11 will be deeply regretted by all who knew him. Born in 1907, he was educated at Charterhouse before taking up medicine at Guy's Hospital. During this period he developed an interest in hibernation, and his earliest papers were on this subject. After qualification, he left Guy's for the Department of Genetics at University College, London, under J. B. S. Haldane. It was here, and later at the Lister Institute, that he first began a lifelong study of the genetic and immunological implications of tumour transplantation. At this time only the genetic basis of tumour transplantation had been established. Gorer proposed that genetically determined antigens present in neoplastic tissues were the immediate arbiters of the fate of such grafts. If the transplant introduced antigens not possessed by the recipient animal, rejection of the graft would follow. Between 1937 and the outbreak of the Second World War, he produced solid evidence in support of this idea. During hostilities he acted as assistant morbid anatomist, and hæmatologist, at Guy's Hospital, and remained afterwards as reader in the Department of Experimental Pathology. Only this year he had been chosen to fill the chair of a newly created Department of Immunology at Guy's Hospital.

On returning to the subject of his researches after the War, he spent several years developing the serological methods necessary before any further progress was possible. The defeat of these technical difficulties enabled him to perform a detailed analysis

of the major system of tissue antigens in mice, known as the *H-2* system. His latest paper on this subject indicated the progress which has been made in mapping the genes which dictate the presence of the *H-2* antigens.

But Gorer was probably best known for his work on the part played by humoral antibody during the rejection of foreign tissue grafts. He established that such antibodies were present in the serum of mice within three days of receiving a graft of alien tumour; furthermore, normal tissues such as skin were similarly able to excite the formation of humoral antibodies. The function of these antibodies is still the subject of research, but it is clear from his evidence that humoral antibodies have several effects; which one predominates varies according to the target graft, and to a lesser extent the recipient.

At an early stage Gorer was aware of the probability of antigenic differences between normal and malignant tissues. The occurrence of antigenic loss had been implied by much genetic evidence, and he confirmed this by serological means. Few investigations distinguished clearly between normal tissue antigens possessed by tumour cells, and antigens peculiar to the neoplastic state. In 1956, in collaboration with one of his pupils, D. B. Amos, he discovered the first of a series of antigens specific to mouse lymphatic leukaemia cells. Later work showed that such antigens were detectable in spontaneous as well as induced leukaemias. It is sad indeed that he was unable to start on the important investigation of the significance of these antigens.

One cannot account for the pre-eminent position of Peter Gorer merely as a result of his brilliant researches and thoughtful reviews. He had great charm and wit, a breadth of interest rarely found, and perhaps the most striking attribute of all was an ability to discuss his own subject dispassionately. It gave great pleasure to his many friends and pupils when he was elected Fellow of the Royal Society in 1960. We shall greatly miss him.

He leaves a widow, a son and a daughter.

J. R. BATCHELOR

## NEWS and VIEWS

### U.S. National Academy of Sciences: Foreign Associates

THE following have been elected foreign associates of the U.S. National Academy of Sciences: Prof. K. E. Bullen, professor of applied mathematics in the University of Sydney; Prof. B. Ephrussi, professor of genetics in the Sorbonne, and director of the Genetics Laboratory of the National Centre for Scientific Research at Gif-sur-Yvette; Dr. W. K. Heisenberg, director of the Max Planck Institute for Physics and Astrophysics, Munich; Prof. V. Prelog, professor of organic chemistry and director of the Laboratory, Federal Institute of Technology, Zurich.

#### Prof. K. E. Bullen, F.R.S.

PROF. BULLEN is a native of New Zealand, born in Auckland in 1906. His interest in seismology was aroused by New Zealand's Hawke's Bay earthquake of 1931 and encouraged by Sir Harold Jeffreys, whom he met the same year, during Bullen's studies in

Cambridge. Together they produced the Jeffreys-Bullen tables of seismic travel times, which have been used since 1940 in preparing the *International Seismological Summary*. Bullen's pressure-incompressibility hypothesis, issued in 1946, led to the inference that the Earth's inner core is solid (in the sense that it can transmit seismic waves), although surrounded by a fluid outer core; it also led him to construct his Earth model *B*, a widely used mathematical model of the Earth's seismic functions. In addition, Prof. Bullen is the author of several papers on the internal structures of Venus and Mars and on the origin of the Moon.

#### Prof. B. Ephrussi

PROF. EPHRUSSI was born in Moscow in 1901. On completing his secondary education there, he went to Paris in 1919 and continued his studies at the Sorbonne, where he received a Rockefeller Foundation fellowship and obtained the D.Sc. degree in 1932. During 1930-34 he undertook investigations in the field of chemical embryology and tissue culture,