

## OBITUARIES

### A. T. Glenny

ALEXANDER THOMAS GLENNY died on October 5, 1965, at the age of eighty-three. He was born in Dulwich on September 18, 1882, and brought up—though he never joined the sect—as a Plymouth Brother. He was educated at Alleyn's School, Dulwich, and when in 1899 Dr. W. Dowson, the director of the Wellcome Physiological Research Laboratories, asked the headmaster of the school to recommend two boys as possible laboratory assistants, Glenny was one of those chosen. His association with the Laboratories lasted for forty-eight years, as laboratory assistant and as head of the Department of Immunology.

Much of Glenny's work was done in collaboration, but the ideas are in general his or follow from his own. Apart from a few miscellaneous papers, his output forms a connected whole which deals with a wide variety of problems concerned with immunization of man and animals—the production, purification and assay of antigens, the increase in their potency, and the basic ideas underlying their use in immunization; the characteristics of passive immunity, and its effect on active immunization; the assay of antisera and the nature of the toxins present in bacterial filtrates. In much of this work he was a pioneer, and to everything he worked on he added fundamental observations and ideas.

Some of his earliest papers deal with the basic and almost universal responses to antigens—the primary and secondary response. These and a consideration of the nature of normal antibodies in animals led him to lay down the ideal conditions for immunization—few injections with long rests between them. To this fundamental work he added the production of new antigens—diphtheria and tetanus toxoids, diphtheria toxin precipitated by alum and toxoid antitoxin floccules—and methods for their assay and use. Not only did he work out the characteristic phases of passive immunity, but he also applied the information to the natural case of homologous passive immunization of the human foetus *in utero*. Here he showed that the immunity transferred passively from the mother may interfere with active immunization of the newborn child, and that, on the average, the interference falls almost to nothing by 6 weeks after birth.

Glenny also showed that combined antigens were a practical proposition, but that they had to be made and used intelligently. Above all, he showed that basic immunity to one antigen in a mixture may reduce antibody response to other components of which the subject has had no experience—a development of earlier work in which he had shown that horses sensitive to horse serum respond poorly to diphtheria toxin-(horse)-antitoxin floccules. By all these methods Glenny laid down the rules that govern modern immunological practice, especially against those diseases in which bacterial toxins are important.

He made considerable advances in assaying antitoxins, both by introducing new methods or improvements on old ones, and, most important, by determining what was being assayed. To this end he developed many of the means of detecting multiple toxins in bacterial filtrates, and of assaying antitoxins against them singly. Besides this, he did excellent work on the avidity of antitoxins—the intensity with which they are bound to their toxic antigens. Most of this work was carried out while he was in charge of the production and testing of antitoxins and

prophylactics; it is an astonishing performance for a man so strenuously occupied.

He was not easy to get on with; shy, diffident, but very conscious of his own capacity, and (often justifiably, but not always sensibly) very critical of that of others. He was almost unbelievably thorough in his own work, tidy, and constantly occupied with the best and most useful form of recording for routine immunization and testing and experimental work.

He was elected Fellow of the Royal Society in 1944, and awarded the Addingham Gold Medal and the Jenner Medal in 1953. He married Emma Blanche Lilian Gibbs in 1910; she and two of their three children survive him. He retired from the headship of the Department of Immunology at the Wellcome Physiological Research Laboratories in 1947, but continued working there until 1959.

C. L. OAKLEY

### W. R. Spurrell

WALTER ROWORTH SPURRELL, emeritus professor of physiology in the University of London, died at his home in Dorset on June 7, 1966, at the age of sixty-nine.

He belonged to the generation which was depleted of so many of its best men in the First World War, but Spurrell survived three years of active service as a gunner officer and returned to his medical studies in 1919. His career as a student was brilliant. He carried off all the best prizes at Guy's Hospital Medical School and found time to take an honours degree in physiology before he qualified M.B., B.S., with the university gold medal. He then embarked on a career of surgery, gained an M.S. and his F.R.C.S., and within a few years his scientific training and his clinical excellence marked him out as a surgeon of the highest promise. But a long illness forced him to give up his clinical career.

With characteristic courage and enthusiasm he turned to physiology and, after spending some happy years in McSwiney's department in the University of Leeds, he was invited to return to his old school to take charge of the Department of Physiology at Guy's when M. S. Pembrey retired in 1933. Spurrell retired from his chair in 1962, so that for 30 years he directed the teaching of physiology; no one ever did more to bring together the pre-clinical and clinical activities of Guy's Hospital and its School. His experience and understanding of patients which he gained as a surgeon in his earlier years gave him a unique insight into the teaching of fundamental physiology to medical students.

He had a simplicity of expression which came from profound knowledge and clarity of thought and the most difficult subjects seemed simple when he expounded them. His own work included subjects as diverse as gastric function and endocrinology. He generously encouraged the lecturers in his department and guided them past fallacies to sound work. In the development of the Medical School at Guy's he was a unifying force. His own personal modesty and unselfishness gave him an authority that was often the means of settling conflicting views and interests. His wise advice was sought by individuals in their personal problems no less than by committees in their difficulties over big issues.

G. F. GIBBERD

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At a special session, a gold medal, cast in honour of Poiseuille, "the first haemorheologist", was presented to Professor Robin Fåhræus (Sweden) in recognition of his pioneer work on blood flow and sedimentation.

The secretary of the new International Society of Haemorheology is Professor George Bugliarello, Department of Civil Engineering, Carnegie Institute of Technology, Pittsburgh, Pennsylvania.

G. W. SCOTT BLAIR