

Z. M. BACQ

WE WISH to offer our most sincere greetings to our Vice-Chairman, Prof. Z. M. Bacq, upon his 70th Birthday on 28 December 1973, and to wish him many happy anniversaries. This Journal owes him a debt of gratitude for his kindly wisdom as well as his enterprise. The subject of Biochemical Pharmacology is indebted to him for editing the first textbook of its subject.

As we now know him, Prof. Bacq is an original and dynamic man with very wide scientific interests and knowledge, and always with the courage to stand up for his convictions. This width of interest arises from many years spent as an active pioneer and leader in the field of physiological, biochemical and pharmacological research. Qualifying in medicine in 1927 at the Free University of Brussels, it can be noted that he spent time with Andrée Mayer at the Collège de France in Paris, and was then in Boston with W. B. Cannon, where his interest was aroused in catecholamines and adrenergic transmission. Upon his return to Belgium, he was enticed to Liège University in 1932, where he joined the Department of the distinguished Prof. Henri Fredericq, and henceforth became a "liégeois". The period to World War 2 was occupied with his increasingly important investigations in depth upon substances with sympathomimetic action, where his insight and remarkable experimental technique led him to realize that more than one substance was involved in neurotransmission, and so to take an active part in the story of noradrenaline. At times he worked with Lindor Brown in the Mill Hill Institute.

Also during this period, he may be said to have initiated the subject of Comparative Pharmacology during active holidays at the Marine laboratory in Naples. We may instance the discovery of acetylcholine in the Octopus.

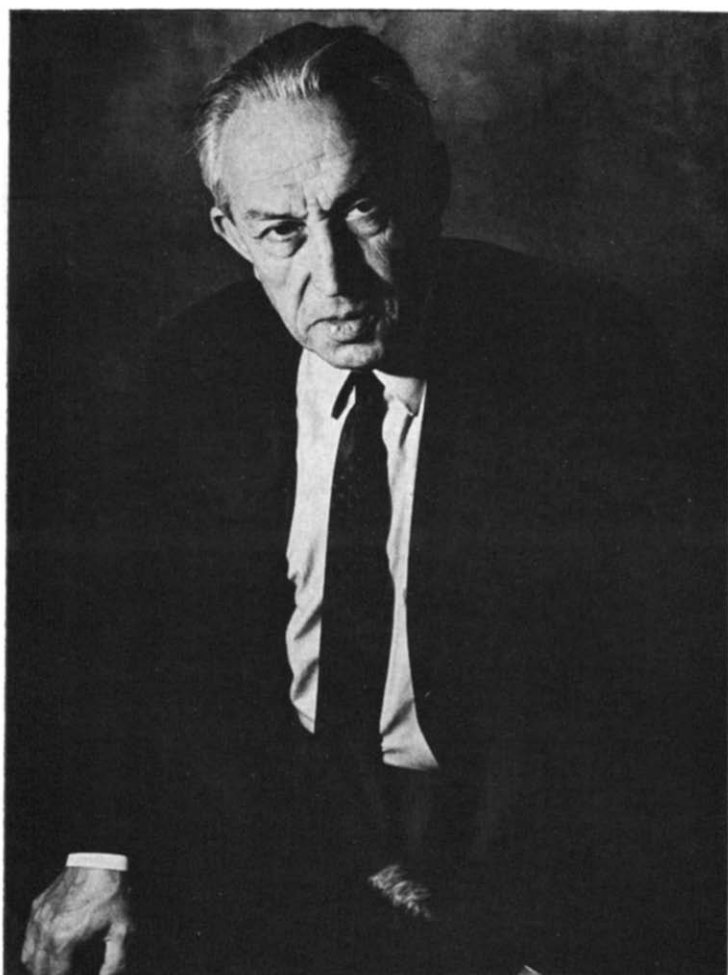
After 1939, with Belgium isolated, we find him actively inspiring and working with a group of able young men in Liège—independently exploring, on parallel lines to groups in Britain, the biochemical action of various toxic substances, such as the lachrymator, iodoacetate and the blisterer mustard gas. Heterogeneous chemical substances as these were, Bacq had the vision to see that they attacked thiol ($-SH$) groups, and could be classified as "substances thiolooprives", a valuable unifying concept.

The war over, Bacq continued his pharmacology; but with his characteristic practical curiosity turned to the pressing problems of the biological effects of ionizing radiations. At that time this subject was dominated by the "target theory" with the implication that the initial damage to the cell could not be affected by external factors. The discovery to which Bacq contributed so notably was that the course of radiation injury in mammals could be modified by chemical agents. The discovery of potent chemical protective agents changed the whole research approach to radiobiology. The emphasis on repair processes at all levels opened exciting new areas of cell physiology which are still being actively exploited. Bacq's approach to radiobiology 25 yr ago developed directly from his interest in $-SH$ compounds and led to the discovery that cysteamine was the most powerful radioprotector and while studying its mode of action he discovered many biochemical effects of this remarkable substance. With P. Alexander he wrote the first comprehensive, yet concise, text book to cover the whole field of radiobiology and his acknowledged expertise in this subject led to his acting as President of the United Nations Scientific Committee for the study of the effects of ionizing radiation, from 1957–1959.

Bacq has had many honours. Among these we may mention that he is a titular member of the "Académie royale de Belgique", from whom he received in 1946 the quinquennial prize for Therapeutic Science; he is a corresponding member of the Académie royale de Belgique, and also foreign correspondent of the USSR Academy of Sciences. In 1948, he received the "Prix Francquis", and in 1958 the "Prix E. Cornez".

Now that he is called "retired", it will be interesting to see where his energies carry him; because a scientific artist such as Bacq, like other artists, does not really retire. He has leisure, of course, to pursue his pleasures in the rock garden, and to spend time with his gracious wife and family. Will he return to his musical composition?

SIR R. A. PETERS



Prof. Z. M. BACQ