

HISTORICAL ASPECTS

Opening Remarks

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The laboratory began on January 1st, 1926, as the Pharmacological Laboratories of the Pharmaceutical Society of Great Britain. At that time, although it was housed in the same building, it had no connection with the School of Pharmacy, and it took no part in the education of pharmacists. I, of course, knew nothing before I arrived of the reasons which had led the Society to begin the laboratories, and I have asked Sir Hugh Linstead, who became the Secretary of the Society about this time, to tell me what he knew. He has done so as follows.

'Naturally my memories of 1926 are fuzzy, but I would crystallize the situation at that time on these lines. (1) Sir William Glyn-Jones, the Secretary, had a feeling that pharmacy (particularly pharmaceutical education) needed dragging out of the craft stage into the developing field of a medical science. He felt that the Dean of the School of Pharmacy, Professor Greenish, with the best will in the world, could not accomplish this, but he could not himself determine the growing points on which to concentrate. (2) About this time, there was strong criticism by Dr H. H. Dale, Professor A. J. Clark and others of the out-of-dateness of the British Pharmacopoeia under the aegis of the General Medical Council. This brought the Society (Glyn-Jones and Edmund White) into consultations with Dale and others. (3) When the transfer of the preparation of the British Pharmacopoeia to the Pharmacopoeia Commission had been effected, Glyn-Jones made use of his contact with Dale to discuss with him pharmaceutical education and the scientific work of the Society in relation to the development of pharmacology. (4) Out of these talks, Glyn-Jones and White fathered the setting up of the laboratory. So I would divide the responsibility between the three: Glyn-Jones for sensing that something needed to be done, Dale for pin-pointing the precise form it should take, and Edmund White for steering the project through the Council.'

The laboratories, then, began because of the growing number of medicinal substances the purity and

potency of which could not be determined by chemical means. These included tinctures of digitalis and strophanthus, pituitary (posterior lobe) extracts, extracts of ergot, ovarian extracts, preparations containing vitamins, neoarsphenamine, and, later, adrenal cortical extracts. The purpose of the laboratories was to carry out research into methods of determining the potency of these substances, and to test substances submitted by pharmaceutical firms that had no means of carrying out biological tests themselves.

In the spring of 1926, I recommended the Society to add a vitamin-testing department to the Pharmacological Laboratories, this they did and Dr Katharine Coward came to take charge of it on October 1st of that year. At first it seemed likely that she would not have much to do apart from research into methods for measuring vitamin potency, but she had many requests for tests on cod liver oil and on margarine to which concentrates of vitamin A and D had been added. Her researches established 'dose/response curves' for the action of vitamins A, B₁, C and D. This work was fully described by Dr Coward in a book which not only explained the methods, but also gave a full account of the statistical treatment of the results. This quantitative study of vitamin action proved of great value.

From 1926 to 1933 this position remained unchanged except in one respect. The Pharmaceutical Society had previously published its scientific proceedings in the *Year Book of Pharmacy*. In 1928, this was recast as *Quarterly Journal of Pharmacy and Allied Sciences* and in 1929 as the *Quarterly Journal of Pharmacy and Pharmacology*. This flourished until after World War II, and, in 1949 it began as the monthly *Journal of Pharmacy and Pharmacology*, which now has a world wide circulation. It is fair to say that much of the stimulus for beginning the Quarterly Journal came from these laboratories, and it is also fair to say that its more rapid recent growth was due to one who worked

in the laboratories before he became Professor of Pharmacology in King's College London, namely Dr George Brownlee, who edited the Journal from 1955 to 1972.

The popularity of the Department may be judged from the number of workers who came from abroad to do research and to learn the methods in use. When I left in September 1937 there had been a total of 26 in the 11 year period since 1926, not counting British workers. From Australia there was one, from Belgium there were 2, from China there were 3, from Denmark there were 4, from France 2, from Hungary 1, from Iceland 1, from India 5, from South Africa 1, from Spain 3, from Thailand 1 and from the United States 2.

Research in the Pharmacological Laboratories. We had a stroke of luck at the beginning. An immediate problem was to set up a standard for Tinctures of Strophanthus, and it was most successfully accomplished by joint work with Dr. J. W. Trevan of the Wellcome Physiological Research Laboratories. It was an astonishing vindication of the accuracy of biological standardization for those who had hitherto rightly regarded it as having no quantitative reliability whatever. Identical results in terms of the standard ouabain were obtained for each of two tinctures by Trevan's method using frogs, and by Magnus's method using cats. The same difference between the two tinctures was also recorded by each method.

I am tempted to describe other successful methods

which were devised, but it would take too long and be out of place.

Pharmacology for pharmacists. In 1933 the Dean of the School of Pharmacy, Professor H. G. Greenish, died, and I was appointed his successor in order that pharmacology might be included in the curriculum of pharmacists. I drew up the first syllabus remembering that it had to be within the capacity of students who at that time had been taught no biology and also of schools of pharmacy who had no biologist on their staff. However, the syllabus was gradually extended by others until many students now taking a degree in Pharmacy spend their life as pharmacologists. Their numbers contribute substantially to the membership of the British Pharmacological Society which now exceeds 1000.

In 1937, The School of Pharmacy, together with the pharmacological department at 17 Bloomsbury Square, constituted The College of the Pharmaceutical Society. When my successor Mr Harry Berry was appointed as Dean, he made an effort to persuade London University to recognize the College of the Pharmaceutical Society as one of the schools of the University. In this he was successful and so today the College of the Pharmaceutical Society has become The School of Pharmacy of London University, and here we are in this large building where the teaching and the examinations and the appointment of the Heads of the Departments are under the control of the University. I am sure it will continue to prosper.