Editorial

The changing face of Clinical Science. In the shadow of Thomas Lewis

Editorials, apart from the highly successful Editorial Reviews, seldom if ever have appeared in Clinical Science. This issue marks such a significant departure in the size and format of the journal that an exception was deemed necessary. What has happened, in essence, is that the pace of innovations in printing, typesetting and related technology has increased with the danger that an unchanging Clinical Science would present an "old-fashioned" image. It is perhaps worth pointing out, however, that frequent minor changes have occurred throughout the existence of Clinical Science, including changes in the number of words per page, the cover and even the title in the latter part of the 'seventies. It was hoped that coincident with this change in format we would also be able to enter the age of electronic publishing and distribution but negotiations have not yet been successfully completed. However, as we look to the future it is necessary to re-examine our past and to draw from our roots the essentials that must be retained.

When, in 1909 our predecessor Heart was first published, Gaskell wrote in a Prefatory note "year by year as the Twentieth Century rolls on it becomes evident that the experimental sciences of Physiology, Pathology and Pharmacology are more and more directly influencing the study and practice of Medicine. Slowly but surely the methods which have proved of value in the laboratory are becoming a matter of routine practice in the hospital for diagnosis; slowly but surely the results of experiments gained in the laboratories are being applied to man. More and more, then, it is of vital importance for the medical man to keep in touch with the workers in the laboratories and to apply the most recent knowledge gained by them directly to man". [1]. Although we should now add Biochemistry, Immunology, Microbiology, Genetics and sundry other disciplines to this list of experimental sciences his words seem strangely prophetic and the sentiments he expressed remain the same to this day. It is not without significance, that the greatest exponent of marrying laboratory experimentation to clinical usage at that time was Thomas Lewis, the first and only Editor of Heart and the first Editor of Clinical Science. In its early years Heart was synonymous with Lewis. In the first volume he was author of three of the eighteen papers and another thirteen came from his colleagues at University College Hospital. The origins of clinical science and its journal Clinical Science are so bound up with Lewis that it behoves us to look more closely at the man.

Thomas Lewis, the third child of Welsh Methodist parents, decided to become a doctor in early life because he was interested in conjuring [2, 3]; two family doctors of his acquaintance were both amateur conjurers and he perceived that "doctoring was a prerequisite to sleight-of-hand". He matriculated in 1898 from London University and studied physics, chemistry and biology at University College Cardiff, later progressing to Anatomy and Physiology. His clinical education was undertaken at University College London and this remained his base throughout the rest of his working life.

Although after qualification and house jobs he had chosen a career of consulting practice his early training in science was not to be denied and he was soon applying the
methods of Physiology to an analysis of the phenomena he was encountering in his hospital patients. Even before completing his clinical training he had published several scientific papers of note. In 1910 he was awarded one of the newly established Beit Memorial Fellowships but held it for only one year when he was appointed lecturer in cardiac pathology at University College Hospital. In 1916 he became the first full-time clinical scientist of the Medical Research Council (at that time a Committee) and thereafter he was able to spend most of his time in research although he still devoted two sessions a week to the wards and one to out-patients. Later in life more of his time was spent in teaching both in clinical science and in medicine.

His major scientific achievements can be divided into three parts. Firstly his study of the heart using the string galvanometer of Einthoven, which he installed in a cleaners’ broom store because of lack of other laboratory space; secondly his study of the peripheral circulation, which involved study mainly on patients and required very little equipment; and thirdly his research into pain. In each of these areas he made major contributions and left at least one book in which he summarized his views. In all he published over 230 papers and 12 books — at that time a prodigious output.

Although never a “committee man” Lewis had one cause for which he fought — clinical science. He felt that “knowledge requisite to the practice of Medicine rests upon a tripod: studies of living man in health and disease; studies of dead man; and correlated studies upon the lower animals” [2]. Animal experiments were used only where suitable methods for human experimentation were not available. This was his concept of clinical science, which he regarded as a separate discipline with as good a claim to be recognized as other branches of biology. Indeed he felt that ‘pure’ scientists did not realise the meaning of research in medicine. To prosecute this aim he renamed his own department “Department of Clinical Research”, removing cardiac from the title; gave many lectures in public and in private; published two books Clinical Science, Illustrated by Personal Experiences [4] and Research in Medicine and Other Addresses [5]; helped found the Medical Research Society [6]; and stimulated the Medical Research Council to declare its support of clinical science, to offer scholarships and to encourage other hospitals to form research departments.

His most significant contribution to the debate, to this journal at least, was to widen the scope of “his” journal Heart, a journal for the study of the circulation” to include all branches of clinical science, becoming “Clinical Science, incorporating Heart”, which he accomplished in 1933. In 1939 he passed responsibility for editorial control to the Medical Research Society although he remained as Editor, and a major contributor until his death in 1945 from his fourth coronary thrombosis; he was succeeded by George Pickering.

In his editorial work he was, as in other branches of his life, meticulous. He took opinions from others but read and judged each manuscript himself. He had rigid rules about what was acceptable, insisting on original observation and experimentation together with a high standard of thought and expression — principles which the current Editorial Board endorses and strives to uphold. As a result few papers were accepted for publication exactly as submitted and most were returned at least once to their authors for correction. Present day authors can take some comfort, however, that they do not have to suffer an interview with the Editor when the deficiencies of their papers are made plain and amended. Most admitted afterwards that the paper had been improved! [2]. So rigid were Lewis’s standards that in the early days he refused to publish at regular intervals since he might then be forced to accept articles not of the nature and quality demanded. Nowadays, submission so outstrips space that there is little danger of this happening, but the Board will still accept papers of only the highest quality.

Lewis also had views on Editors, insisting that an Editor had a responsibility to his readers for allowing no looseness of expression, no ambiguity of meaning, no false conclusions and no redundancy to appear in print. When authors receive criticisms of their papers they might reflect on these strictures which our founder placed on Editors!

Lewis insisted on the best or nothing [3] and we must do the same. In this spirit we launch this further chapter in the history of Clinical Science, believing that we have to move with the times to present clinical science as Lewis understood it, in as attractive a package as possible. In this light we also recognize that there is now a need to publish some articles very rapidly, and have introduced a section of Rapid Communications, where an editorial decision can be expedited and publication times shortened. We will maintain the highest standards for these Rapid Communications and articles will be so designated only if rapid publication is in the scientific interest.

So we enter a new era, yet one which is firmly grounded in Thomas Lewis’s own ideas. As he wrote in the Editorial Preface to Heart: “The Journal requires communications containing, above all, original and carefully ascertained facts, and conclusions consonant with such facts and previous observations. By a record of fact and the statement of new principles progress will be ensured” [7].

REFERENCES