

The Legacy of Sir Thomas Lewis: Clinical Science in the era of Molecular Medicine. A personal perspective.

Thomas Lewis invented the term clinical science to describe a scientific discipline distinct from applied physiology and biochemistry, critically dependent on the study of patients. His dream seemed to have been fulfilled after his death with the creation by the Medical Research Council (MRC) of a Clinical Research Centre (CRC) at Northwick Park Hospital in Harrow. This development undoubtedly reflected the profound influence that Lewis had on his University College Hospital Medical School colleague Professor of Medicine, Harold Himsworth, later the great post war Secretary of the MRC who was instrumental in the establishment of MRC Units around the country, most notably the Laboratory of Molecular Biology in Cambridge.

The first Director-Designate of the CRC, appointed in 1962 was the visionary John Squire, Professor of Experimental Pathology in Birmingham, who as a medical student and junior doctor worked for Lewis and accompanied him to Llandough Hospital when University College Medical School relocated there during the Blitz. Squire's early death in 1966 had a profound effect on the development of the CRC which opened in 1970 but closed in 1992. The MRC, by then dominated by basic biomedical researchers dissatisfied with the return on the costs of clinical research, failed to accept the conclusions of an advisory Committee chaired by Sir Michael Stoker FRS (of which I was a member). Stoker in 1986 recommended the relocation of MRC's National Institute of Medical Research from Mill Hill in North London, where it was distant from teaching hospitals, to the Northwick Park Hospital site; and importantly that it should to be joined there by the Royal Postgraduate Medical School whose existence at Hammersmith Hospital was threatened by reorganisation of the NHS and reduction in the funding of overseas students. Because of this major lost opportunity I left the RPMS in 1987 to move to Cambridge, and there helped to develop a substantial biomedical campus with many of the ingredients originally envisaged by the Stoker Committee for Northwick Park. In 2006 when the MRC was again deliberating NIMR's future I initiated (as its Interim Director) discussions which led to the merger of NIMR with the Cancer Research UK's London Research Institute in a new building near St Pancras station-sufficiently close to central London hospitals to provide laboratory facilities for clinician scientists. This is the Francis Crick Institute eventually created in partnership with London's major Medical Schools.

Clinical science world-wide has now gained momentum, with the recognition of the shortcomings of animal models of disease and with research funders placing an increasing emphasis on translational medicine. The late Sydney Brenner, Nobel Laureate and molecular geneticist, unconsciously echoed Lewis when he declared (in the context of the human genome project) that 'the new model organism is man', pointing out that in man there existed diverse genomes with 'skilled expensively trained phenotypers termed doctors studying them'. So-called phenomic science is now gaining currency.

For these and many other reasons Lewis's legacy looks secure and enduring.