

Professor Brian Wallace Payton

1930 - 2014



Brian was a lifelong member of the British Pharmacological Society from his time as a PhD student until his death on April 22nd 2014. He was born in East Ham (London) on February 13th, 1930, was evacuated to South Wales during the war, and finally emerged from Ilford County High School in 1948 to be drafted into the Royal Army Medical Corps for his National Service, serving time with the British Army in Germany as a Laboratory Technician.

After returning to the UK, Brian completed an M.B., B.S. at Charing Cross Hospital Medical School. He was subsequently recruited as an Assistant Lecturer into

Professor J.P. (Peter) Quilliam's Department of Pharmacology at St. Bartholomew's Hospital Medical College (1959- 65), which is where I first met him. In between teaching medical students, Brian completed some experiments on drug action on the frog neuromuscular junction, using intracellular electrophysiological recording (relatively rare in Pharmacology departments at that time). These led to a Ph.D. (examined by Ricardo Miledi) and a couple of papers in BJP. His most novel observation was that gallamine (Flaxedil) exerted a presynaptic action, leading to repetitive end-plate potentials and muscle action potentials, and to repetitive antidromic discharges back along the motor axons (ref.1). This seemed grist to the mill to those then advocating a role for acetylcholine in nerve conduction. However, Brian also showed that the effect of gallamine resembled that of tetraethylammonium (TEA): this proved prophetic because, like TEA, gallamine was later found to block delayed rectifier potassium channels.

Following his PhD Brian moved to New York – first to Werner Loewenstein's department at Columbia University, then to Mike Bennett's department at Albert Einstein, with summer sojourns at Woods Hole. This meant temporarily turning away from pharmacology to studies on electrotonic synapses, and resulted in two first-author papers in Science. One of these (ref.2) was especially important in showing that the dye Procion Yellow could cross synaptic gap junctions, thus revealing their unique properties compared with non-junctional membranes.

In 1969, Brian joined the then-new Medical School of the Memorial University of Newfoundland in Canada, as Associate Professor then Professor of Physiology (there wasn't a Pharmacology department as such). He held the latter post until his retirement in 1995, with (from 1973 onwards) the additional role of Director of Medical Audiovisual Services. As this might suggest, Brian was a truly dedicated, enthusiastic and humorously innovative teacher (see picture below).

This brief sketch omits Brian's multifarious other activities. He was a man of many talents, quirky humour, and diverse interests – most notably photography and film production, constructing satirical cartoons, model building, music, and medical history (both serious and less so). A very few examples: a spoof film shown to the Physiological Society in the late 50s (ref.3; Brian was the photographer); a book on

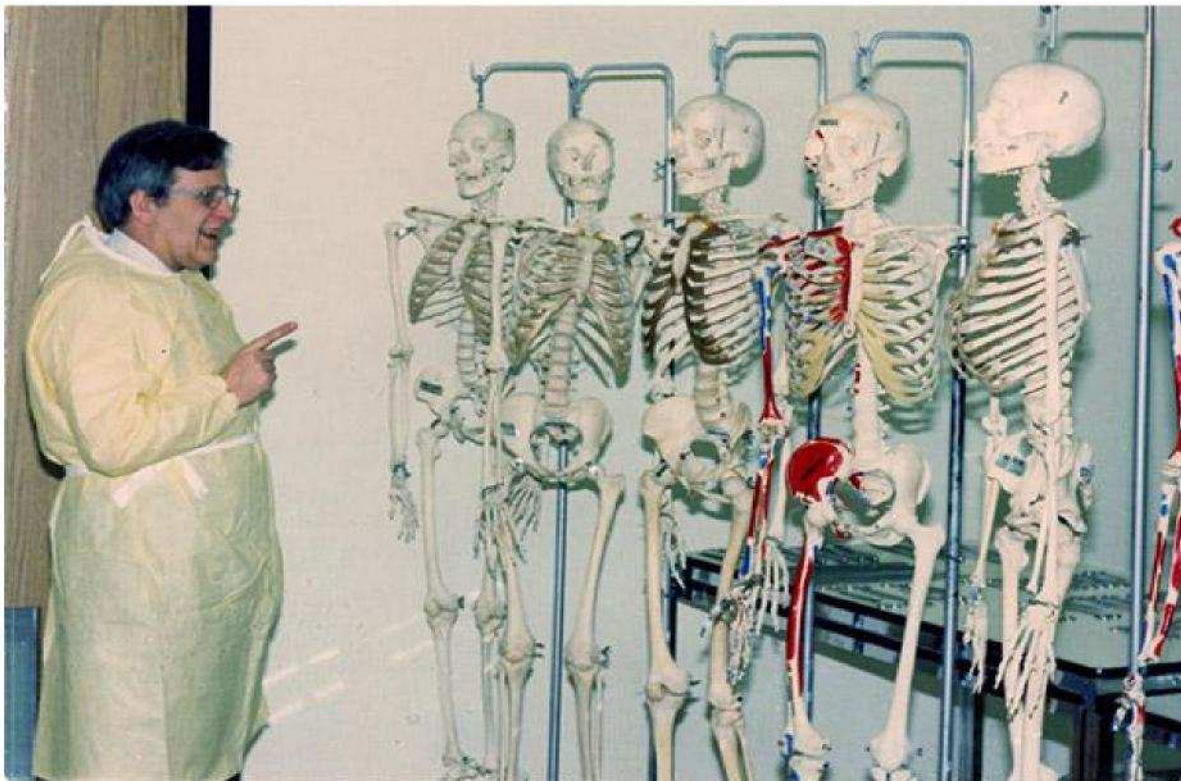
the influence of astrology on medicine (ref.4); and a spoof lecture on an obscure aspect of medical history, given at the University of Newfoundland in 1980, and repeated at University College London (ref.5).

Brian was married to, and predeceased by, his wife Krista (nee Heidecker), a nurse from Magdeberg in East Germany whom he met during his National Service and married in 1956. He sadly leaves two children, Nicholas and Timothy, and a host of grandchildren (who gave Brian enormous pleasure and who benefitted from his model building), plus his later partner Barbara. He also leaves his friends and colleagues with treasured memories of many life-enhancing experiences from meeting and knowing him.

David Brown, Honorary Fellow, BPS

References

1. Payton BW, Shand DG (1966). Actions of gallamine and tetraethylammonium at the frog neuromuscular junction. *Br J Pharmacol Chemother.* 28:23-34
2. Payton BW, Bennett MV, Pappas GD.(1969) Permeability and structure of junctional membranes at an electrotonic synapse. *Science.* 166:1641-1643.
3. Lippold O, Nicholls J, Payton B, Redfern J. (1959). Prioprioceptive receptor potentials of oscillatory form. *J.Physiol.*, 149, Suppl 3P.
<http://www.youtube.com/watch?v=NWvF4-1wztM>
4. Payton,BW. (1991). *Starcraft and Wortcunning.* (University of Newfoundland)
5. Payton,BW. (1980) *The Influence of Tristram Schmuk on Colonial Education.* (Public Lecture).



Professor B.W.Payton doing some small-group teaching at the University of Newfoundland