

Lawrie Austin

This summary of Lawrie Austin's achievements was written by John Rostas in March 2007

Lawrie is widely regarded internationally and in Australia as the "father" of neurochemistry in Australia - between him and Graham Johnston they trained many of the first neurochemists/molecular neuroscientists in Australia.

Lawrie was the first Australian elected to the Council of the International Society for Neurochemistry (ISN), not long after its formation - since Lawrie's election there has always been an Australian on the ISN Council. Lawrie was the first President of ANS. In fact the formation of ANS grew out of conversations between Lawrie and David Curtis. The first meeting of what would later become ANS was organised by Lawrie (with a lot of help from Bruce Livett and Peter Jeffrey) at Monash as a half day meeting on the weekend before the national meeting of the Australian Biochemistry Society. The next year David Curtis organised a half day meeting before the APPS meeting in Canberra.

In an attitude that was ahead of its time, Lawrie always looked at biochemistry in a neurobiological/functional context and encouraged his students to investigate a broad range of topics. He also recognised the inherent heterogeneity of the nervous system and the need to do biochemical analysis on defined populations of cells rather than whole brain tissue. He pioneered (in Australia) the use of Oliver Lowry's ultra-microanalytical techniques to measure biochemical changes in single cells dissected from frozen tissue sections. He also pushed other technologies to the limit to tackle projects some of which were beyond the available methods of the time.

Lawrie started his research in Adelaide working for the Defence Standards Laboratories on cholinesterases (and retained an interest in venoms and toxins). In 1963 Lawrie was recruited to the Biochemistry Department at Monash University where he established a neurochemistry research group that became the dominant force in neurochemistry in Australia for almost two decades. His research group worked on a large range of projects. In several of these areas his group's work was at the cutting edge of the field internationally. These areas included:

- axonal transport of proteins and nucleic acids - work from his lab was seminal in defining some of the characteristics of the fast and slow modes of axonal transport;
- the biological capabilities of isolated nerve terminals (synaptosomes) in vitro;
- the role of protein synthesis in learning and memory (in collaboration with Marie Gibbs, Richard Mark and Peter Jeffrey);
- the dynamics of protein turnover in brain
- the changes in gene expression in ganglionic neurons following injury (during chromatolysis) - this early work did not progress very far because the technology to do it properly did not arrive until two decades later;

Lawrie was an early champion of cross disciplinary neuroscience research forming a regular seminar series with Brian Cragg, Richard Mark, Geoff Bentley and others in Physiology and Pharmacology at Monash. These informal discussions led to many joint projects and cross-fertilisation that is now taken for granted within ANS. In recognition of his contribution to Australian neuroscience and the Australian Neuroscience Society, Lawrie was the recipient of the first ANS Distinguished Achievement award (in 1993).

When Lawrie retired from Monash in 1991, he began a new and highly successful research career as Head of the Muscular Dystrophy Research Group within the St Vincent's Hospital Neuromuscular Research Unit in Melbourne. His achievements in this new role were recognised with the award of the Bethlehem Griffiths Research Foundation Medal in 1999.

Lawrie died on November 7, 2000, after a long illness.