Obituary Notice, John Coghlan 22.3.1934 - 19.5.2018

At the height of the depression John Coghlan's parents Jack and Myrtle (nee Foo) lived in a cottage in the back streets of Jolimont. Sensing the imminent arrival of the first of their four sons, Myrtle walked to the Queen Victoria Hospital, then in William Street, where John was born on March 22, 1934. The family moved to Strathmore, not far from Essendon airport, despite which - perhaps the first signs of contrarianism – John became a lifelong Richmond supporter. He was educated at CBC North Melbourne, and after leaving school did his National Service, a source of occasionally hair-raising reminiscence.

In 1956 he became a part-time junior animal technician (his word: 'dogsbody') in the Melbourne University Physiology Department, allowing him to enrol in a science degree. Part-time notwithstanding, he graduated B.Sc. in 1958, M.Sc. in 1961, and PhD in 1964. No longer dogsbody, he worked with Professor RD (Pansy) Wright and Dr Derek Denton on aldosterone, the hormone from the adrenal glands which retains salt and is essential for life. It is made in tiny amounts, so that low levels – the normal state when salt is plentiful – were impossible to measure. John went off for 3 months to New York, and developed the 'double isotope derivative dilution' method, which was labour intensive, but it worked, and was the 'gold standard' for decades.

Aldosterone was a lifelong interest, but not by any means his sole focus. John worked with Bryan Hudson, inaugural Professor of Medicine at Monash, on testosterone. He worked with Kevin Catt at Prince Henry's Hospital on angiotensin, which stimulates aldosterone secretion. At the Howard Florey Institute, with Hugh Niall and Geoff Tregear, he was involved in studies on various protein hormones; most notable was relaxin, without which normal childbirth would be near impossible. A second major contribution was, with John Shine at ANU, to pioneer the techniques of 'hybridization histochemistry'. This enables scientists to measure levels of messenger RNA, the intermediary code for protein synthesis, by looking down a microscope at slides of very thin tissue sections.

John was appointed Deputy Director of the Howard Florey Institute in 1972, and succeeded Derek Denton as Institute Director from 1990-1996. In his spare(?) time he filled the roles of Deputy Vice Chancellor (Research) at Melbourne University from 1987-1990, and as Deputy Chair (1995-1997) and Chair (1988-1990) of the key Medical

Research Committee of NHMRC. Over the decade before he assumed the latter role, he was a key (and ultimately successful) driver of an appropriate first world level of funding for medical research – not just for the institute or the university , but for medical research – basic, translational, clinical – across all of Australia.

His scientific contributions are widely recognized. They include award of his D.Sc. from Melbourne University, at the age of 36; the Dale Medal of the UK Society for Endocrinology in 1988, the first Australian to be so honoured; in 1995 the award of MD (*Honoris Causa*, UNSW), only the second non-medical graduate to be so honoured, the other being the King of Thailand: and in the same year the inaugural Ramaciotti Foundation Medal for Excellence in biomedical research.

In 1997 John was made an Officer in the Order of Australia (AO). The citation ends with "…endocrinology, and to the arts". John served on various boards – ballet, museum, university art gallery. In 1986 he and Bill Louis set in place (and funded, in large part) the R.D. Wright Lecture series, to commemorate his friend and mentor. Since that time there have been 18 occasional lectures: tellingly, the first was on mediaeval art, the second on Minoan civilization.

From the outset John has been a man fiercely devoted to his family – his wife and fellow scientist Marelyn Wintour-Coghlan, and their children Mark, Karen, Johanna and Daniel. He was also fiercely devoted to an extended family in research, many of whom he mentored, including the writer of this obituary. We'd meet shopping at the Victoria Market and he'd ask, "Are you free tonight?" He'd tell Marelyn, and all afternoon would be devoted to preparing delicious Chinese food; on occasion we may have had rather too much wine. With us, his extended family, he was never grumpy, as he could be on occasion; his black and white approach was attributed, as his daughter Karen said at John's funeral, as probably inevitable given his Irish and Chinese background. For us, he was loyal, funny, passionate and a great friend.

After leaving the Florey John worked three days a week for a decade as Director of the Menzies Foundation. He then formally retired, but spent five days most weeks in an office at the university, surrounded by vertiginous stacks of books, journals and offprints. He co-authored over 500 scientific papers; the second last appeared just before his death (on evolutionary cosmology) and the last just after (an obituary for the

Royal Society of his friend James Tait, co-discoverer with his wife Sylvia Simpson of the hormone aldosterone). Right up to his final hospital admission John was forwarding links to articles in Nature and Science that had piqued his interest. The last two were terrific. One was a study showing that the connections (nerve cells in the brain, synapses, muscles) for hind limb activity were the same in humans (walking) as in the skate: this came complete with a marvellous video of a baby skate 'walking' – one flat tail end fin then the other – across the seabed. The second was on paramedic ants. A strain of African ants eat termites which not unexpectedly reciprocate by biting the ants' legs. If an ant loses 3 or more of their six legs they're history: if they lose 1 or 2 they are rescued, and have an 80% chance of survival: the paramedic ants ignore the pleas of the more severely damaged.

Why did John send these on? The answer is that he had a sense of deep wonder about the world around us, undiminished in his 85th year. Most good scientists, and all great scientists, have a driving sense of wonder. John Coghlan was a great scientist.

John Funder, with the assistance of Marelyn Wintour-Coghlan