

## In Memoriam

# Merton Sandler

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Prof Merton Sandler, Fellow Emeritus of the ACNP, was one of the great founders of the field of biochemical psychopharmacology. As he noticed in an interview with Prof D Healy, 'I didn't even realize I was a psychopharmacologist until many years after I had become one'. In 1953 Captain M Sandler, while serving 2 years in the UK Army together with Captain Michael Pare, who became Merton's lifelong friend and collaborator (and noted psychiatrist at the Maudsley Hospital London), published their first paper, 'Starvation Aminoaciduria' in the *Lancet*. Most of his consequent studies (many still relevant now) were dedicated to monoamine oxidase (MAO). He and Dr Pare came up with the first version of the monoamine hypothesis of depression in 1959. In the Discussion sector of the follow-up paper (and his Discussions always were masterpieces) he suggested a functional activation (increased access of substrate to the enzyme) of small gut MAO in depressed patients and proposed that 'depression is a generalized organic illness and not merely one localized in the brain' ... and 'in a wider context a leaky membrane disease' (1975). Prof Sandler's discovery (with his lifetime colleague, Prof V Glover) that in humans dopamine is metabolized by MAO type B (contrary to animals metabolizing dopamine by MAO type A) paved a way for introducing deprenyl (MAO type B inhibitor) for the treatment of Parkinson's disorder. He was very interested in endogenous MAO inhibitors and (together with Prof Glover) discovered, named and studied tribulin, an endogenous MAO inhibitor and ligand to benzodiazepine receptors. Merton and his team were the

first to identify tetrahydropapaveroline, an endogenous MAO inhibitor and a product of dopamine condensation with acetaldehyde, in human urine (1973). Merton rightfully predicted the importance of BDNF in antidepressant action (2001).

Prof Sandler contributed to the development of the field as an influential Editor. Seymour Kety convinced Merton to succeed him as co-Editor-in-Chief (with the late Dr J Schildkraut) of *J Psychiatric Research* (1982–1992). He edited many other journals, including *J Neural Trans* and *Br J Pharmacol*, and several seminal monographs on migraine, serotonin in psychiatry, and others.

Merton was a very special participant at ACNP meetings. In the early morning, he with his wife Lorna ran around Carribe Hilton hotel, took a swim, and was ready to immerse himself in the scientific programs starting at 8 AM. As he described it in his interview with Prof Healy: 'It was around the swimming pool at an ACNP meeting that David Wheatley, Alec Copen and I, hatched the British Association of Psychopharmacology'. (Merton was BAP President and receiver of BAP Life Achievement Award).

Merton was a natural mentor. Many of his students became the leaders in their fields, like his very first PhD student, Prof Josephine Arendt, renowned expert on Biological Rhythms. At ACNP and other meetings he was always surrounded by a crowd of his colleagues. He was genuinely interested in learning about their studies. He was never pompous, and always treated them with great respect. I (GO) knew him from the late 1960s. I never heard him say a bad word about anyone. He always found something good to say about people he knew. Merton was so modest that one of his relatives could not believe me that the only reason I came from Detroit, Michigan, to London in 1991 was to attend the Royal Medical Society (RMS) celebration of Merton's 65th birthday ('I never thought that Merton is such an important person!'). Merton was very appreciative of and respectful to all the people he used to work with. I (GO) remember that while Merton mentioned his very first secretary (who, eventually, became MD) in his speech at RMS, the lady sitting next to me whispered 'Thank you, Dr Sandler!' He did invite her to his party! He was very generous in supporting young researchers both on professional and personal levels. The hospitality of Lorna and Merton's house in London was legendary! I (GO) was one of the luckiest recipients of their kindness and support.

He loved research and would (as he said) 'talk science into the middle of the night with the same excitement wherever I am wafted by the scientific winds'.

He never minded when his achievements were mistakenly credited to other people (and, unfortunately, there are too many examples). His usual reaction was 'Ah well, you win some, you lose some'. He has always been a dedicated reader of the literature. He said he would go through the spring edition of Federal Proceedings, with its two or three thousand abstracts, as a kind of religious devotion!

Merton has a great sense of humour, and even wrote a book on medical humour and anecdotes.

His contribution to the field was enormous; his findings and concepts were ahead of time and, most of them, are still relevant now. His natural scientific approach was to build bridges between animal experiments and clinical practice. He was convinced that 'If you really want to know about man, you can get some pointers from the animal world but only pointers'.

He had a unique ability to see new problems where none have been seen before, and of finding new ways of solving them.

He was a recipient of many prestigious awards, including the Anna Monika Prize for research on biological aspects of depression (1973), the Gold Medal British Migraine

Association (1974), and a CINP Pioneer Award for lifetime contribution to monoamine studies in human health and disease (2006).

Merton was a father figure for many of us. His death has made us scientific orphans.

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