

**Coppen A.** The biochemistry of the affective disorders.

*Brit. J. Psychiatry* **113**:1237-64, 1967.

**This paper was a review of investigations into the role of neurotransmitters, endocrine factors and electrolytes in the aetiology and treatment of depressive and manic illness. [The *Science Citation Index*<sup>®</sup> (*SCI*) and the *Social Sciences Citation Index*<sup>™</sup> (*SSCI*<sup>™</sup>) indicate that this paper was cited a total of 178 times in the period 1967-1976.]**

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"The 1950s saw the development and use of various groups of drugs, including the monamine oxidase inhibitors, the tricyclic antidepressant drugs, and lithium salts. In addition to their powerful antidepressant action, these treatments were a stimulus to neurochemists, pharmacologists and psychiatrists to investigate their mode of action and consequently develop more powerful weapons to combat the prevalent conditions of severe depression and mania, which occur so frequently in middle-aged and elderly people.

"A very important difficulty in working out the modes of action of these compounds and investigating the causes of these illnesses was that they had no satisfactory animal models. In the 1960s I was one of the relatively few (and today there are still lamentably few) psychiatrists who attempted to parallel the enormous efforts being made in the non-clinical laboratories by performing investigations on patients. The practical difficulties of

carrying out these investigations under sufficiently standard conditions to make scientific sense was, and still is, considerable. However, by 1967 it seemed to me there was enough data available to make an interesting review for psychiatrists, who were administering powerful and prolonged doses of these antidepressant drugs, but who often had very little knowledge about their mode of action and the rationale for their administration.

"Clinical and non-clinical investigators in the field of biogenic amines, endocrine and electrolyte research often knew little of each other's work. Fortunately, as I had worked in each of these areas, I was able to draw together the various strands and, as I hoped, encourage communication between the various disciplines that were being applied to the study of depressive and manic illnesses.

"I must admit that at times I was not very hopeful about the success of my venture and I was thus gratified by the good reception of the review and the interest it engendered in many branches of the life sciences. There is no doubt that today psychiatrists are much better informed about the biological basis for depression and mania and their treatment.

"I hope that my paper contributed to this and to the realisation that there must be effective collaboration between the non-clinical scientist, the clinician and the patient for those investigations to be fruitful. It is the very real difficulties inherent in this collaboration that must be overcome if we are to achieve the full potential of our considerable technological progress in the neurosciences."