IN MEMORIAM
ASHTON C. CUCKLER

Some people, and I believe Ashton Cuckler was one of them, seem to find their ideal professional niche. It is not a matter of luck. Luck may get them to the right starting point; but it takes work to make it work. It takes talent, and a number of other things, to make a success of it. Ashton C. Cuckler had talent in abundance, as well as the training, commitment, and the other necessary attributes. What is more, he enjoyed it all, and that may be what gave him such a flair for his chosen field of industrial parasitological research. When he died on 25 May 2000, at the age of 90, he left behind the memory an enormously successful career in the discovery and development of antiparasitic drugs.

A native of Nebraska, Ashton C. Cuckler was awarded the Ph.D. degree by the University of Minnesota in 1941, and briefly held junior faculty appointments at that institution and at the University of Hawaii. His research in those early years was focused on helminth parasites and especially on the biology of strigeid trematodes. In the post-WW II era, after training at the Army Medical School in Washington D.C., he served in Italy as Laboratory Director for the Italian Medical Mission of the United Nations Relief and Rehabilitation Administration—an experience that probably influenced his decision to enter the pharmaceutical industry to work on the experimental chemotherapy of malaria.

When Cuckler joined The Merck Institute for Therapeutic Research in 1947, the sulfonamides were still of great interest in the field of chemotherapy. The primary target, of course, was bacterial infections, but the Merck chemists had made a sulfa that seemed promising for the treatment of malaria. It was sulfquinioxaline, and it proved to be too toxic for use in humans. Sulfa drugs had already been shown to be effective against the related protozoal disease, poultry coccidiosis, and perhaps sulfquinoxaline would be better than those already tried. It was! The introduction of sulfquinoxaline (SQ®) as a practical feed additive for the control of coccidiosis was a major event in the development of the modern poultry industry. It is a story in itself (one that awaits the attention of a historian) and involved scientists within and without the Merck organization. Its relevance here is that it drew Cuckler deeper and deeper into coccidiosis research. He studied the biology and immunology of the infection, but his emphasis was on the methodology of bioassays and their use for the discovery of new drugs. Cuckler’s anticoccidial index, incorporating multiple parasitological and pathological criteria, was widely adopted in other laboratories for the evaluation of therapeutic efficacy. His own research program yielded a series of anticoccidial agents of novel structure, and some of them dominated the marketplace for many years.

As his success in the coccidiosis arena brought him greater responsibilities in the Merck organization, Ashton Cuckler became less and less active at the laboratory bench. But from his director’s office, and through his weekly lunch meetings with his senior staff, he oversaw the activities of the several parasitology laboratories. From his department (or from the wider area of responsibility that he later held) the following antiparasitic drugs emerged: Antiprotozoals: sulfquinoxaline (above); nicarbazine (Nicarb® etc.); nithiazide (Hepzide®); glycarbylamide (Glycamide®); amprolium (Amprol® etc.); ethopabate (in Amprol Plus®); amquinolate (Amquinate®, not marketed); mizidazole (Ridzol®). Anthelmintics: thiabendazole (TBZ®, Equizole®, Mintezole®, etc.); rafoxanide (Ranide® etc.); cambendazole (Camvet®, etc.).

In recognition of his achievements, Ashton Cuckler was awarded Merck’s prestigious “Directors’ Scientific Award,” which led to the endowment of a lectureship in his name at the University of Wisconsin.

In 1957 I became a member of Cuckler’s parasitology department at the Merck Institute for Therapeutic Research, joining Dr. John Egerton, Dr. Morris Solotorovsky, and Ms. Christine Malanga as Ash’s senior staff. In one capacity or another Ash Cuckler was my chief, and my chief mentor, for the next 18 yr—so I had ample opportunity to get to know him and to learn from him. Coming straight from graduate school, I expected professional learning to continue, but I was by amazed by the acceleration of the process. Ash himself was a fount of parasitological knowledge and practical know-how, and the excitement and challenge of the work created an atmosphere of constant learning. I learned not only parasitology but also some things I was not expecting to learn. I learned to love the intellectual discipline imposed by goal-oriented research. I learned that applied research can coexist happily with the basic kind and that even the most narrowly targeted projects can be