This is the autobiography of a biochemist who worked extensively in the field of experimental endocrinology, and whose research was largely instrumental in understanding the action of male sex hormones in controlling primary and secondary sexual development, but also the effect of these substances upon muscle. He was able to show that the anabolic effects of testosterone were a direct action upon the muscle, and, as this effect occurred in animals that had the hypophysis removed, it was not due to the feedback action of the hormone upon the hypothalamus. He assisted in the preparation of anabolic steroids on a large-scale basis, and realised the great benefits these substances could have upon the well-being of people suffering from malignant and other wasting diseases. Although the discoverer of the anabolic actions of androgens, he does not, anywhere in his book, discuss their possible role in the unethical or illegal use in muscle building to give an unfair advantage to so-called sportsmen. In a letter to me, the author wrote “Since there seems to be a continued, and indeed growing interest of anabolic steroids in sport, it seems appropriate to acquaint your readers with a historical review of the discovery and the delineation of the anabolic action of steroids.”

Apart from the account of the development and use of one class of steroids, the book has several lessons that could well be learned by other research workers. His early experiments in isolating hormones involved inexpensive but troublesome techniques such as the evaporation of gallons of urine to obtain enough hormone to use on one or two experimental animals. Evaporation was performed by placing shallow dishes over a heat source consisting of 100 watt light bulbs placed in discarded fruit tins, and metabolic studies done the hard way in Benedict or Haldane oxygen/carbon dioxide absorption methods, — echoes of the 1940’s in undergraduate physiology laboratories. One important lesson he learnt was that results in one species of animal were not always the same in another; — rats are not large mice, and the renotropic and androgenic effects of testosterone give different effects in rats compared with guinea pigs and hamsters, the latter species showing a greater anabolic effect. It is therefore dangerous to transfer results directly to man without a lot of extra work and careful follow-up. From the viewpoint of experimental biological science, this book has a place in the shelves of the research library or the departmental bookshelf, whether the field of study is into hormonal control, or any other branch of biology, connected with sport or not. The review copy will be available among the BASM’s book collection in the library of the London Institute of Sports Medicine.

Henry E. Robson

**BOOK REVIEW**

**Title:** HOW IT WAS — ANABOLIC ACTION OF STEROIDS AND REMEMBERSENCES  
**Author:** C. D. Kochakian  
**Publisher:** The University of Alabama School of Medicine 1984  
**Price:** $10.95 US  
**116 pages**  
**References**  
**ISBN 612 4 00924(B)**

Considering the First Edition of this small text was published in 1920, with the Seventh Edition in 1963 and revised and reprinted in 1976 and 1988 it really has stood the test of time and surely has been an invaluable crammer to generations of medical students hovering on the brink of the second MB examinations. It contains generous accurate diagrams, a useful index and an updated glossary, while it has no pretensions at being other than its stated title.

The modern student of anatomy may prefer the more recent, larger, colourful texts but would be hard pressed to get better value for money.

Elizabeth McSwan