

Immunology 1930-1980: Essays on the History of Immunology

Pauline Mazumdar, ed.

Toronto: Wall and Thompson, 1989, ix + 307 p., hb. \$39.95

Immunology has a long pre-history, but its history as a separate discipline is quite short. In July 1986, as the sixth International Congress of Immunology began in Toronto, a two-day Symposium on the History of Immunology was held at Victoria University. Organized and animated by Professor Pauline

Mazumdar, this immunological "first" was conceived by Toronto's Dr. Bernhard Cinader, who is a founder and first president (1971) of the International Union of Immunological Societies. Scientists and historians were invited to participate. This illustrated volume contains 20 short essays, most based on the presentations heard at this exceptional event.

Some of the world's most distinguished immunologists participated, including G. J. V. Nossal of Australia, David Talmage of Denver, Felix Haurowitz of Bloomington (who worked in Vienna, Berlin, and Prague), Ivan Roitt of England, Rune Grubb of Sweden, and Bernhard Cinader. Their papers tell of the template theory of antibody formation and its overthrow by the clonal selection theory; the authors recount their personal involvement in the notions of tolerance, autoimmunity, and immunosuppression; and they explore the relationship of immunology to blood grouping and oncology. The names of their Nobel prize-winning colleagues, Neils Jerne, F. Macfarlane Burnet, and Peter Medawar, appear often. But content extends beyond the banal scientific memoir of who did what, when: Nossal uses his paper to make general statements on "how science works"; Talmage postulates a three-stage evolution in the life of a successful theory; Fred Karush of the University of Pennsylvania provides a tantalizing look at metaphors in immunology; and historian of science Anne-Marie Moulin examines the meaning of the "end of immunology" as put forth by Jerne and Burnet.

For those of us present during those hot, humid days, this was a magical happening. Felix Haurowitz (d. 2 Dec. 1987) seemed somehow to still believe in his template theory and did not disguise his feeling that this idea was the under-acknowledged inspiration for Watson and Crick. Unfortunately, his final illness prevented publication of his essay, but the gap is amply filled with an introductory essay by Pauline Mazumdar. Discussion following each presentation was enhanced by contributions from an enthusiastic audience that included Horace Judson, the historian of molecular biology, and R. Miller, immunologist at the University of Toronto. In these less formal periods, the assembly was treated to the uncommon spectacle of scientists debating the theories of scientific change of Karl Popper and Thomas Kuhn. Unfortunately, this volume could not contain a transcript of the discussions, but I believe the proceedings were tape-recorded.

Here is a rare blend: scientists who are (or have been) on the cutting edge, taking time to look back; historians, who usually attempt to explain the past, daring to look forward; and each group acknowledging the other's work. Together with Dorothy Whitcomb's *Immunology to 1980: An Illustrated Bibliography of Titles in the Middleton Health Sciences Library* (Madison: University of Wisconsin, 1985), it joins the small but slowly increasing number of documents useful to those interested in the history of this relatively young discipline. With Professor Mazumdar, we hope it represents the first element in a new tradition.

JACALYN DUFFIN *Queen's University*