

Meetings

History of Microbiology

The first conference in the United States devoted exclusively to the history of microbiology convened at Indiana University 29 June–3 July. The sessions were attended by teachers of microbiology and allied sciences from all parts of the country. Most of the speakers were professional microbiologists, rather than historians of microbiology; indeed, it is doubtful whether anyone would admit being confined to such a narrow and esoteric specialty.

L. S. McClung (Indiana University), who serves as archivist for the American Society for Microbiology, described the contents of the archives that are maintained in the Lilly Library. The archives are open to all scholars interested in the developments of American microbiology, particularly those occurring since 1900, and it is hoped that this collection will ultimately serve as a center for historical research in this area.

One of the useful features of the conference was a panel discussion on teaching the history of microbiology at the college or university level. The panel consisted of E. Weinberg (Indiana University), R. N. Doetsch (University of Maryland), F. Engley (University of Missouri), and S. Morrison (Colorado State University). The subject is usually offered as a one-semester course, given generally to senior majors or first-year graduate students. It was agreed that the best method to present these materials of microbiology is either as a series of formal lectures or as a combination of these with seminars and discussions. Emphasis was placed on using original papers ("classics") as primary source materials for these discussions. An interesting suggestion was to use replicas of original experimental apparatus, such as Leeuwenhoek microscopes or Pasteur's swan-neck flasks, as teaching aids.

A course on the history of micro-

biology would (i) assist in the development of humanistic rather than purely technological scientists; (ii) inspire students with the spirit, adventure, and achievements of microbiologists; (iii) emphasize the importance of microbiology in human affairs (for example, lengthening of life span, control of epidemics, and so forth); and (iv) serve to trace the emergence and development of great ideas and to depict the interaction between the political, social, economic, and scientific features of a given era or society.

R. N. Doetsch (University of Maryland) traced the development of American thought on the cause of infectious diseases. He tried to show that the work of Cotton Mather, John Crawford, John Kearsley Mitchell, and Daniel Drake was in many ways of equal merit to their European contemporaries, but that lack of laboratory development, poor communication, and the challenge of the wilderness prevented its fruition. C. E. Dolman (University of British Columbia) presented a comprehensive survey of the contributions of British microbiologists from 1880 to 1930. One of the interesting features of Dolman's presentation was his superb collection of photographic slides of nearly all the eminent British microbiologists of the half-century about which he spoke. Most of these photographs have never been published, and they certainly constitute a valuable adjunct to the history of that area of microbiology.

Tracing the development of important ideas, R. J. Porter (University of Iowa) spoke on spontaneous generation, and G. Miller (Western Reserve) discussed theories of smallpox in the 18th century. In both of these instances, the speakers emphasized that the development of ideas must be interpreted and criticized in terms of the times in which they were introduced, rather than from the vantage of the 20th century. Porter showed how our ideas on spontaneous generation in

1964 differ from those held in 1864, and he related how Pasteur himself had tried in vain to obtain positive results with a rigorous laboratory technique.

No further publication of these proceedings is contemplated, although the entire program was recorded on tape. This conference, sponsored by the National Science Foundation, together with several symposia held at recent national meetings of the American Society for Microbiology, revealed the growing interest in and the importance of the historical aspects of microbiology in the United States.

RAYMOND N. DOETSCH

*University of Maryland,
College Park*

Interferon

Recent research with interferons was reviewed during a special symposium held at the 64th annual meeting of the American Society for Microbiology, Washington, D.C., 4 May 1964.

Last year the program committee of the society decided to test a new kind of scientific session. It proposed to hold one or more "sessions in depth" covering one major topic and consisting of both invited and "offered" papers as an effort toward combining the more desirable features of the traditional symposium and regular scientific session. From the former, the "session in depth" would borrow the element of concentration in depth, with more time allotted to each paper. From the latter, it would take the aura of freshness and novelty of current work and the opportunity for free discussions from the floor.

In discussions of the chemical and physical nature of interferon, T. C. Merigan (Stanford Medical Center) reported that interferons produced in chick, mouse, and human fibroblasts were similar in their molecular weight (about 25 to 35,000); they were, however, distinguishable in their behavior on column chromatography. L. E. Kreuz and A. H. Levy (Johns Hopkins University) obtained similar molecular weights for interferon and determined that the sedimentation constant of this substance was 2.2 to 2.3S and the diffusion coefficient, based on chromatography on a Sephadex G-100 column, was 9.5×10^{-7} .

According to Monto Ho (University of Pittsburgh), interferon, unlike some