

Cultivation of *M. leprae*

Physiologic Principles of Mycobacterial Metabolism

Chairman: E. R. Long

Dr. Binford. Dr. Long needs no introduction to this audience. He is well known in all circles where mycobacteria are discussed. Former head of the Henry Phipps Institute of the University of Pennsylvania, he has theoretically been retired for some years, but in "retirement" he has become intensively active and productive. Beginning January 1, 1964, he has been the editor of the INTERNATIONAL JOURNAL OF LEPROSY.

Dr. Long. I am glad that Dr. Binford made those announcements. We hope to publish the *Proceedings* of this meeting as a supplement to the third issue of 1965 of the INTERNATIONAL JOURNAL OF LEPROSY, including both the papers and the discussions. Important as the papers are, the discussions may be even more valuable, because they may bring forth leads that will prove useful in future work.

The program, as you have probably

noted, has been divided so that we can move from certain generalities to more specific points. This morning we shall take up a principal factor for continued consideration as we go along, viz., the metabolism of mycobacteria. We hope that out of the discussion of this problem new ideas will develop for the cultivation of *Mycobacterium leprae*. Dr. Cochrane pertinently brought out the fact this morning that we are not concerned only with growth of the microorganisms. He made the point that extremely important bodily factors also must be taken into account, i.e., that the bacillus is by no means the whole story. We shall not cover that important ground at this session, however. We hope to make progress this morning on cultivation of the bacillus. Before we consider *Mycobacterium leprae* directly, we shall discuss some of the factors concerned in the metabolism of mycobacteria in general. We have experts to open this phase of the program, beginning with Dr. Dexter S. Goldman, who is chief biochemist at the Veterans Administration Hospital in Madison, Wisconsin, and inti-

imately associated with biochemical investigations at the University of Wisconsin. Dr. Goldman is well known for his papers on *M. tuberculosis*. It is a typical pathogenic mycobacterium; it may furnish leads for our studies of the leprosy bacillus. Dr. Goldman is going to speak to us on "Intracellular mechanisms for the control of respiration and biosynthesis in mycobacteria."

Dr. Goldman. Dr. Binford, Mr. Chairman. As the case may be with other participants in this conference, I am not sure what I am doing here. My part started several months ago with a letter from Dr. Long inviting me to take part in a conference on research problems in leprosy. He explained that I had achieved some degree of distinction in the narrow area of mycobacterial physiology, pointing out that leprosy is presumably caused by an acid-fast organism, i.e., a mycobacterium, and noting that when work on the metabolism and physiology of *M. leprae* is discussed one invariably turns to a discussion of research of *M. tuberculosis*.