

AGAR DIFFUSION REACTIONS IN LEPROSY

TO THE EDITOR:

This is to assure you that our study of mycobacterial antigens, of which one report was published in the June 1959 issue of *Tubercle* [40 (1959) 163-172], is not finished. At the moment, late 1959, Dr. R. J. W. Rees and I are engaged in a study of antigens from mycobacteria including leprosy bacilli of human and rat origin, together with antisera from human and animal sources. This study is being conducted in collaboration with leprologists in East Africa and Malaya.

One of the supposed lepromin preparations referred to in that report was the Dharmendra antigen, and another was Lowe's preparation, supposedly similar but prepared by a modified technique; the third, of murine leprosy bacilli, was a protein extract. The Dharmendra antigen was active, for (with the rabbit antituberculosis serum used) it produced the three precipitation lines characteristic of all but one of the several PPD antigens used (lines A and B of the polysaccharides, and the additional line C of the PPD's). The Lowe antigen, for some reason not understood, was totally inactive in the test. The murine-bacillus extracts gave two lines, they being in common with lines A and C. In the inhibition test the Dharmendra antigen was as effective a blocking agent as was any other of the antigens used in that test.

As for increasing the contrast of the precipitation lines for visual demonstration, the protein-staining methods such as we used are very effective, since they show up the protein antibody content of the precipitate, whatever the nature of the antigen. Yet it is surprising how successful the photographing of untreated agar-gel plates can be. It is not necessary to use complex equipment, such as Schutz' dark-field apparatus [*J. Biol. Photo. Assoc.* 26 (1958) 159]. We use an apparatus made of cardboard by our photographer, D. F. Lawson [*J. Photo. Sci.* 5 (1957) 1-4].

Finally, we would much like to receive samples of various lepromin preparations which leprosy workers anywhere might send us, for use in this study.

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