

I do not foresee short-term breakthroughs in this respect.

The use of antibodies for diagnosis depends on the individualization of an antigen-antibody reaction characteristic of leprosy and *M. leprae* and not occurring with other related organisms (mycobacteria) with which contact may be likely. The problem here is not lack of antibody response in all forms of leprosy or in methods to detect this but rather in lack of a definite or specific antigen. This specific antigen need not be related to antigens involved in resistance or in adjuvanticity. There is some evidence that a protein antigen may be specific to *M. leprae*^{35,36}. Its isolation needs an adequate supply of unaltered organisms from armadillos or else the culture of *M. leprae in vitro*.

In summary, the main avenues for progress would be:

- a) A more accurate definition of immunologically active cells; this includes their characterization by reliable methods and understanding of their functions and of control mechanisms.
- b) A better insight of adjuvants. This would include knowledge of their chemical structure and understanding of the way by which they act.

³⁵ Caldwell, H. D. and Buchanan, T. M. Immunological and structural integrity of surface protein antigens of mycobacteria during separation from armadillo liver tissue. *Int. J. Lepr.* **47** (1979) 469-476.

³⁶ Caldwell, H. D., Kirchheimer, W. F. and Buchanan, T. M. Identification of a *Mycobacterium leprae* specific protein antigen(s) and its possible application for the serodiagnosis of leprosy. *Int. J. Lepr.* **47** (1979) 477-483.

- c) Obtainment of antigens from *M. leprae* and their immunological and chemical characterization.
- d) If all or most of the above is achieved, then manipulation and direction of the immune response is possible. Current reports of the use of cyclophosphamide to eliminate suppressor lymphocytes³⁷ and of indomethacin to suppress their function are examples of this. All this may be far from us.

I would like to point out that the problems that we face are basically identical to those of the immunology of cancer and of autoimmune disorders. It is not that research in leprosy is not up to the times and cannot answer pertinent questions; it is that the questions now posed are key biological questions not completely answered by anyone.

—Mauricio Goihman-Yahr

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³⁷ Glaser, M. Regulation of specific cell-mediated cytotoxic response against SV-40-induced tumor associated antigens by depletion of suppressor T cells with cyclophosphamide in mice. *J. Exp. Med.* **149** (1979) 774-779.

Information Requested from National Leprosy Associations

The News & Notes section of the JOURNAL affords an opportunity for the reader to be made aware of activities of interest to leprosy workers throughout the world. The President of the ILA, Professor Michel F. Lechat, has recently made available to us a list of over three dozen national leprosy associations. By comparing this list with

recent items of News & Notes, it becomes clear that the readers of the JOURNAL do not have the opportunity of knowing about many of these organizations. Even the larger organizations are known by name only, with little appreciation for the scope of their activities.

In an effort to remedy this situation and

to achieve the broadest possible coverage in the JOURNAL, we would like to invite all local or national organizations active in leprosy work to contact the editorial offices of the JOURNAL and provide us with information concerning their purposes, activities, meetings, number and types of memberships, etc. We would like to include this information in subsequent issues of the JOURNAL.

This could prove to be an invaluable means of bolstering the morale of many leprosy workers, who from time to time feel they are standing nearly alone in their efforts, and should provide all of us with much needed perspective.

—RCH