

Isolation and Identification of a Substance from Serum of Leprosy Patients

TO THE EDITOR:

Sera from healthy persons and leprosy patients (5320 sera) who had various forms of the disease were examined using the reaction of Rubino (¹⁻⁶). Sera from some patients which gave a positive reaction were selected and submitted to fractionation on a Sephadex column. A fraction containing agglutination activity for sheep erythrocytes was isolated. This activity was evident only after the fractionation procedure. The active fraction was immediately concentrated and lyophilized. In order to observe a positive reaction of agglutination, it was necessary to use recently prepared erythrocytes. The isolated substance had a molecular weight of 76 kDa (⁷), an isoelectric point (⁸) of 5.70, and has high activity in causing the agglutination of sheep erythrocytes. The chemical structure is being determined (⁹).

—E. Garcia Lima

*Associate Professor
of Immunology*

—C. J. Laura

*Associate Professor
of Biochemistry
Faculdade de Medicina
de Ribeirao Preto
Universidade de Sao Paulo
14.049 Ribeirao Preto, S.P., Brasil*

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New Findings on the Mode of Entry of *Mycobacterium leprae* in Nude Mice

TO THE EDITOR:

In a study reported by us earlier, nude mice in groups of 10 were exposed to *Mycobacterium leprae* by subcutaneous injection, and topically on the mucosa of the nose, lungs, mouth, stomach, and broken and unbroken skin. Leprosy infection was transmitted only to those animals exposed topically through the nasal mucosa or to those animals injected with *M. leprae* subcutaneously (¹). These findings were later confirmed by Lancaster (⁴).

It is well known that in humans *M. leprae* has a special predilection for the cooler regions of the body with a temperature of 30°C to 35°C. *M. leprae* are routinely grown in the foot pads of mice, and this is thought to be because the temperature of the foot pad is around 30°C at an ambient temperature of 20°C–25°C (⁷). It was realized that in our earlier experiment *M. leprae* were introduced into the skin of the flanks of the mice, an area with a temperature higher than that of the feet. It is possible that the infec-