PRODUCTION AND CHARACTERIZATION OF MONOCLONAL ANTIBODIES TO *LEPTOSPIRA INTERROGANS* SEROVAR *KREMASTOS* AND *CANICOLA*, AND STUDIES ON THE CHEMICAL NATURE OF THE ANTIGENIC SITES

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Monoclonal antibodies to *Leptospira interrogans* were provided by cell fusions between a myeloma cell line, P3/X63-Ag8.653, and spleen cells of BALB/c mice immunized with two different leptospiral lipopolysaccharide antigens. One antigen was prepared from *Leptospira interrogans* serovar *kremastos* strain Kyoto and serovar *canicola* strain Hond Utrecht IV. Twenty hybridoma cell lines secreting monoclonal antibodies to the former organisms and five hybridoma cell lines secreting monoclonal antibodies to the latter organisms were established. On the basis of their microscopic agglutination reactivities, 20 anti-*kremastos* Kyoto monoclonal antibodies were classified into 11 distinct groups and 5 anti-*canicola* monoclonal antibodies into 3 distinct groups.

The antigenic determinants were investigated by using two different monoclonal antibodies to *canicola*. One monoclonal antibody (CT 5) reacted with a component having a molecular weight of 3,400 daltons which was produced by alkaline treatment from the lipopolysaccharide antigen. Another monoclonal antibody (CT 3) reacted with a component having a molecular weight of 2,000 to 10,000 daltons and a monosaccharide fraction which were produced by formic acid hydrolysis from the lipopolysaccharide antigen. From the monosaccharide fraction, an antigen-active carbohydrate with reducing power was isolated by anion exchange chromatography and paper chromatography.