Hokkaido University granted the degree of Master of Veterinary Medicine to the following 37 graduates of the Gradute School of Veterinary Medicine on 24 March, 1984.

The authors' summaries of their theses are as follows:

EPIDEMIOLOGICAL SURVEY OF CHIAMYDIAL INFECTION IN FERAL PIGEONS AND CROWS IN HOKKAIDO, AND STUDIES ON THE PREPARATION OF A COMPLEMENT-FIXATION ANTIGEN FOR PSITTACOSIS

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An epidemiological situation of psittacosis in feral pigeons and crows was elucidated by isolating *Chlamydia psittaci (C. psittaci)*from these birds in Hokkaido and by examining the presence of chlamydial antibodies in them. A new method was developed to prepare a complement-fixation (CF) antigen from chyamydial organisms grown in tissue culture. Antigenicity and immunogenicity of the CF antigen were also analyzed.

The results were summarized as follows:

1) *C. psittaci* was isolated from 9 of 119 pigeons, and no chlamydial organisms were isolated from 179 crows. Of the 105 pigeons tested, 32 (30.5%) had chlamydia-positive CF titers of 1 : 8 or greater. Of the 82 crows tested, 18 (22%) were positive in the indirect CF test. Furthermore, high rates of hemagglutination inhibition antibodies were found in both groups of birds.

2) Cycloheximide tretment of L-929 cells enhanced the yield of infectious *C. psittaci*. The culture infected with chlamydia at increased inoculum size and without centrifugation yielded a high infection rate equal to that of centrifuge-assisted infection.

3) *C. psittaci* strains P-1041 and Bud.-1 and *C. trachomatis* strain L-2 were propagated in L-929 cells. The CF antigens were prepared by inactivation of chlamydia with 0.2% of β-propiolactone. In the CF tests using human and pigeon sera, it was found that these antigens contained a genus-specific component of chlamydiae. Furthermore, after periodate treatment of these antigens, type-or strain-specific antigenicity still remained in them.

4) Ascitic fluids from mice immunized with these CF antigens were used in cross neutralization tests. Anti P-1041 and anti Bud.-1 ascitic fluids gave a high titer against only homologous strain. However, the immune ascitic fluid to strain L-2 had a higher titer against P-1041 than the homologous titer, and also neutralized Bud.-1.