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**EXPERIMENTAL STUDIES ON CANINE BLOOD GROUPS:
SURVEY OF BLOOD GROUPS WITH ALLO-
AND XENOANTIBODIES**

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Blood groups of dogs were studied in order to investigate clinical blood transfusion of dogs. Blood typing reagents were produced in dogs and goats by repeated infusion with canine erythrocytes. 1) Seven blood typing reagents obtained from dogs were tentatively designated as anti-M 1 through M 7 type sera. Six blood typing reagents obtained from goats were tentatively designated as anti-G 1 through G 6 type sera. 2) The highest incidence of antigen-M 1 through G 6 among the examined breeds was as follows: in mongrels, antigen-G 2: 31.0%; in beagles, antigen-M 2: 42.5%; in labrador retrievers, antigen-G 3: 51.28%. Fifty-two combinations of blood group antigens were observed from 200 mongrels, 15 from 80 beagles, and 7 from 39 laborador retrievers. 3) The gene frequencies of phenotypes-M 3 G 3 and G 4 were estimated among these 3 breeds. In mongrels, the gene frequencies were calculated as 0.123, 0.041 and 0.038; in beagles, they were 0.141, 0.032 and 0.120; and in labrador retrievers, they were 0.000, 0.284 and 0.153. 4) All of the erythrocytes which scored as ++ or above using the bromelin method were judged as positive by the hemagglutination test, and those which scored as - using the same method were judged as negative. 5) The 4 groups: anti-M 1 type serum, anti-M 2-M 4-M 5-M 6-M 7-G 1-G 3-G 4-G 5-G 6 type serum group, anti-M 3 type serum and anti-G 2 type serum, were statistically distinguished from the 13 blood typing reagents.