



Immunosuppressive effect of heterologous anti-immunoglobulin antisera in mice  
by Dean David Manning

A thesis submitted to the Graduate Faculty in partial fulfillment of the requirements for the degree of  
DOCTOR OF PHILOSOPHY in Microbiology  
Montana State University  
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**Abstract:**

Neonatal injection of mice with rabbit anti- $\mu$  antiserum has been shown to produce complete loss of direct and indirect plaque forming responses to sheep erythrocytes as well as loss of serum IgM and severe depressions of all other serum immunoglobulins. Similar injection of anti- $\gamma_1$  and  $\gamma_2$  antibodies effects a loss of the indirect response but induces relatively minor alterations in serum Ig levels. Delaying initiation of anti- $\mu$  treatment until young adulthood results in a somewhat diminished effect on plaque forming responses and serum Ig levels but triggers the release of high serum levels of an aberrant  $\mu$ -bearing protein.

Anti- $\mu$  and anti- $\gamma_1\gamma_2$  antisera, although profoundly affecting humoral antibody production, are not capable of altering the course of homograft rejection in mice.

Anti- $\mu$  suppression of genetically thymusless mice indicates that at least part of the target cells for suppression are bone marrow derived. A working model for the maturation of humoral antibody producing cell lines as it relates to these data is discussed.

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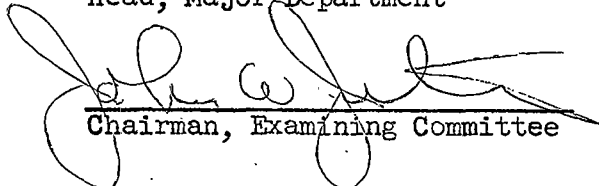
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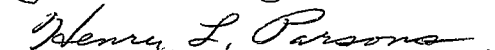
in

Microbiology

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Bozeman, Montana

March, 1972

ACKNOWLEDGMENTS

I thank Dr. J.W. Jutila and Dr. N.D. Reed for consultation and review of the manuscript. I also thank Dr. J.A. Rudbach for supplying the lipopolysaccharide antigen and Ms. J.K. Manning for assistance in the assay of thymusless mice.

This research was supported in part by U.S. Public Health Service Training Grant 5-T01-AI00131-09 and U.S. Public Health Service Grant AI 6552-07.

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