

The Biology Club and The Department of Biology present

T cell-mediated autoimmune disease – a tale of two anemias

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Whether from blood loss, autoimmune responses against red blood cells, or a faulty production of red blood cell precursors, there is an estimated 1.6 billion people with anemia. Dr. Hoyer will discuss two causes of anemia that develop in an autoimmune mouse model. Acquired aplastic anemia is a bone marrow failure disorder and in a majority of patients is autoimmune in nature. Autoimmune hemolytic anemia is an antibody-mediated disease characterized by the generation of antibodies directed against red blood cells. IL-2-deficient mice on the BALB/c background, with a deficit in functional regulatory T cells, die between 19-35 days of age due to complications of both aplastic anemia and autoimmune hemolytic anemia. This lecture will focus on the critical role of CD8+ T cells in the development of both Th1-mediated anemias.