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1953 Induction of B Cell Differentiation by T Cell Factors. I. Stimulation of IgM Secretion by Products of a T Cell Hybridoma and a T Cell Line

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N. Khansari, M. Segre, and D. Segre 1889 Immunosuppression in Murine Malaria: A Soluble Immunosuppressive Factor Derived from Plasmodium berghei-Infected Blood
J. V. Weinstock and D. L. Boros 1906 Heterogeneity of the Granulomatous Response in the Liver, Colon, Ileum, and Ileal Peyer's Patches to Schistosome Eggs in Murine Schistosomiasis Mansoni
R. H. Zubler and J. A. Louis 1924 Clonal Assay for T Helper Cells (Th) and Conditions for H-2-Restricted Linked Cooperation between Th and Hapten-Primed B Cells: Application to the Quantitation of Hemocyanin or Leishmania tropica-specific Th in Primed Mice
R. Yarchoan, B. R. Murphy, W. Strober, M. L. Clements, and D. L. Nelson 1958 In Vitro Production of Anti-Influenza Virus Antibody after Intranasal Inoculation with Cold-Adapted Influenza Virus
M. A. Vadas 2083 Cyclophosphamide Pretreatment Induces Eosinophilia to Nonparasite Antigens
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H. Okada, H. Tanaka, and J.-C. Cyong 1903 Regulation of Human Natural Killing. I. The Role of Monocytes, Interferon, and Prostaglandins
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