

ANDERSON, Clark L.

Professor

Education and Training:

Brown University, Providence, RI	1955-57	Biology
University of Arizona, Tucson, AZ	AB 1960 1957-60	Chemistry
University of Chicago School of Medicine	MD 1964 1960-64	Medicine
University of Chicago Graduate School	1964-65	Biochemistry

Professional Experience:

1965-66 Intern in Internal Medicine, University of Colorado
1966-69 Major, Medical Corps, U.S. Army, Germany
1969-71 Resident in Internal Medicine, University of Colorado (Dr. Gordon Meiklejohn)
1971-74 Research Fellow in Immunology, National Jewish Hospital (Drs. Percy Minden and Howard Grey)
1974-75 Clinical Immunology Fellow, National Jewish Hospital/University of Colorado (Dr. Richard Farr)
1975-77 Leukemia Society of American Special Fellow, National Jewish Hospital (Dr. Howard Grey)
1977-82 Assistant Professor, Department of Medicine, University of Rochester
1982-86 Associate Professor, Departments of Medicine (Immunology Unit) and Microbiology (Assistant Professor), University of Rochester
1987-98 Professor, Department of Molecular Genetics, The Ohio State University
1986- Professor, Department of Internal Medicine and of Medical Biochemistry, The Ohio State University

Honors:

1975-77 Leukemia Society of America Special Fellow
1979-84 Research Career Development Award, NIAID
1987-91 Medical Biochemistry Study Section, DRG, NIH
1994 University Distinguished Scholar Award, OSU
1998- Section Editor, Journal of Immunology

Selected Publications:

Anderson, C.L., and H.M. Grey. 1974. Receptors for aggregated IgG on mouse lymphocytes: Their presence on thymocytes, thymus derived and bone marrow derived lymphocytes. *J. Exp. Med.* 139:1175-1188.

Anderson, C.L., R.T. Kubo, and H.M. Grey. 1975. Cytophilic properties of α 2-microglobulin. *J. Immunol.* 114:997-1000.

Anderson, C.L., and H.M. Grey. 1977. Solubilization and partial characterization of cell membrane Fc receptors. *J. Immunol.* 118:819-825.

Heusser, C.H., **C.L. Anderson**, and H.M. Grey. 1977. Receptors for IgG: Subclass specificity of receptors on different mouse cell types and the definition of two distinct receptors on a macrophage cell line. *J. Exp. Med.* 145:1316-1327.

Anderson, C.L., and H.M. Grey. 1978. Physicochemical separation of two distinct Fc receptors on mouse macrophage-like cell lines. *J. Immunol.* 121:648-652.

Anderson, C.L. 1980. The murine macrophage Fc receptor for IgG2b is lipid dependent. *J. Immunol.* 125:538-540.

Anderson, C.L., and W.S. Stillman. 1980. The Raji cell assay for immune complexes. Evidence for detection of Raji-directed immunoglobulin G antibody in sera from patients with systemic lupus erythematosus. *J. Clin. Invest.* 66:353-360.

Anderson, C.L., and G.N. Abraham. 1980. Characterization of the Fc receptor for IgG on a human macrophage cell line, U937. *J. Immunol.* 125:2735-2741.

Anderson, C.L., and H.L. Spiegelberg. 1981. Macrophage receptors for IgE: Binding of IgE to specific IgE Fc receptors on a human macrophage cell line, U937. *J. Immunol.* 126:2470-2473.

Anderson, C.L. 1982. Isolation of the receptor for IgG from a human monocyte cell line (U937) and from human peripheral blood monocytes. *J. Exp. Med.* 156:1794-1806.

Anderson, C.L., J.M. Spence, T.S. Edwards, and J. Nusbacher. 1985. Characterization of a polyvalent antibody directed against the IgG Fc receptor of human mononuclear phagocytes. *J. Immunol.* 134:465-470.

Jones, D.H., J. Nusbacher, and **C.L. Anderson**. 1985. Fc receptor-mediated binding and endocytosis by human mononuclear phagocytes: Monomeric IgG is not endocytosed by U937 cells and monocytes. *J. Cell Biol.* 100:558-564.

Jones, D.H., R.J. Looney, and **C.L. Anderson**. 1985. Two distinct classes of IgG Fc receptors on a human monocyte line (U937) defined by differences in binding of murine IgG subclasses at low ionic strength. *J. Immunol.* 135:3348-3353.

Looney, R.J., G.N. Abraham, and **C.L. Anderson**. 1986. Human monocytes and U937 cells bear two distinct Fc receptors for IgG. *J. Immunol.* 136:1641-1647.

Rosenfeld, S.I., R.J. Looney, J.P. Leddy, D.C. Phipps, G.N. Abraham, and **C.L. Anderson**. 1985. Human platelet Fc receptor for IgG: Identification as a 40 kD membrane protein shared by monocytes. *J. Clin. Invest.* 76:2317-2322.

Looney, R.J., D.H. Ryan, K. Takahashi, H.B. Fleit, H.J. Cohen, G.N. Abraham, and **C.L. Anderson**. 1986. Identification of a second class of IgG Fc receptors on human neutrophils: A 40 kD molecule found also on eosinophils. *J. Exp. Med.* 163:826-836.

Anderson, C.L., P.M. Guyre, J.C. Whitin, D.H. Ryan, R.J. Looney, and M.W. Fanger. 1986. Monoclonal antibodies to Fc receptors for IgG on human mononuclear phagocytes: Antibody characterization and induction of superoxide production in a monocyte cell line. J. Biol. Chem. 261:12856-12864.

O'Grady, J.H., R.J. Looney, and **C.L. Anderson.** 1986. The valence for ligand of the human mononuclear phagocyte high affinity IgG Fc receptor is one. J. Immunol. 137:2307-2310.

Anderson, C.L., and R.J. Looney. 1986. Review: Human Leukocyte IgG Fc Receptors. Immunology Today 7:264-266.

Anderson, C.L., and R.J. Looney. 1987. IgG Fc receptors of human leukocytes. Meth. Enz. 150:524-536.

Shen, L., P.M. Guyre, **C.L. Anderson,** and M.W. Fanger. 1986. Heteroantibody mediated cytotoxicity: Antibody to the high affinity Fc receptor for IgG mediates cytotoxicity by human monocytes which is enhanced by gamma interferon and is not blocked by human IgG. J. Immunol. 137:3378-3383.

Anderson, C.L., D.H. Ryan, R.J. Looney, and P.C. Leary. 1987. Polymorphism of the human monocyte 40 kD receptor for IgG. J. Immunol. 138:2254-2256.

Rosenfeld, S.I., D.H. Ryan, R.J. Looney, **C.L. Anderson,** G.N. Abraham, and J.P. Leddy. 1987. Human platelet Fc receptors: Quantitative expression correlates with functional responses. J. Immunol. 138:2869-2873.

Looney, R.J., **C.L. Anderson,** D.H. Ryan and S.I. Rosenfeld. 1987. Structural polymorphism of the human platelet Fc receptor does not correlate with variations in quantitative expression. J. Immunol. 141:2680-2683.

Ceuppens, J.L., M.L. Baroja, F.V. Vaeck and **C.L. Anderson.** 1988. A defect in the membrane expression of high affinity 72 kD Fc receptors on phagocytic cells in four healthy subjects. J. Clin. Invest. 82:571-578.

Peltz, G., K. Frederick, **C.L. Anderson** and B.M. Peterlin. 1988. Characterization of the human monocyte high affinity Fc receptor. Mol. Immunol. 25:243-250.

Anderson, G.P. and **C.L. Anderson.** 1990. Signal transduction by the platelet Fc receptor. Blood. 76:1665-1172.

Ravetch, J.V. and **C.L. Anderson.** 1990. The Fc R family: Proteins, transcripts and genes. In Fc Receptors and the Action of Antibodies. Ed. H. Metzger, American Society of Microbiology. pp 211-238.

Anderson, C.L., L. Shen, D.M. Eicher, M.D. Wewers, and J.K. Gill. 1990. Phagocytosis mediated by three distinct Fc receptor classes on human leukocytes. J. Exp. Med. 171:1333-1346.

Sedmak, D.D., D.H. Davis, U. Singh, and **C.L. Anderson.** 1991. Distribution of IgG Fc Receptors in the Human Placenta and on Endothelial Cells: An Immunohistochemical Study. Am. J. Path. 138:175-181.

Anderson, C.L., R.J. Looney, D.J. Culp, D.H. Ryan, H.B. Fleit, M.J. Utell, M.W. Frampton, P.D. Manganiello, and P.M. Guyre. 1990. Alveolar and peritoneal macrophages bear three distinct classes of Fc receptors for IgG. J. Immunol. 145:196-201.

Anderson, G.P., J.G.J. van de Winkel, and **C.L. Anderson.** 1991. Anti-CD41 monoclonal antibody-induced platelet activation requires Fc receptor-dependent cell-cell interaction. Br. J. Hematology. 79:75-83.

Van de Winkel, J.G.J., L.K. Ernst, **C.L. Anderson,** and I.-M. Chiu. 1991. Gene organization of the human high-affinity receptor for IgG, Fc γ RI (CD64). Characterization and evidence for a second gene. J. Biol. Chem. 266:13449-13455.

Van de Winkel, J.G.J. and **C.L. Anderson.** 1991. Biology of human IgG Fc receptors. J. Leuko. Biol. 49:511-524. (Outstanding Review Award, 1996)

L.K. Ernst, J.G.J. Van de Winkel, I.-M. Chiu and **C.L. Anderson.** 1992. Three genes for the human high-affinity receptor for IgG (Fc γ RI) encode four distinct transcripts. J. Biol. Chem. 267:15692-15700.

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Marsh, C.B., **C.L. Anderson**, M.P. Lowe, and M.D. Wewers. 1996. Monocyte IL-8 release is induced by two independent Fc gamma R-mediated pathways. J. Immunol. 157:2632-2637.

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Liu, Z., D.C. Roopenian, X. Zhou, L.A. Diaz, D.D. Sedmak, and **C.L. Anderson**. 1997. β 2-microglobulin-deficient mice are resistant to bullous pemphigoid. J. Exp. Med. 186:777-784.

Lowry, M.B., A.-M. Duchemin, J.M. Robinson, and **C.L. Anderson**. 1998. Functional separation of pseudopod extension and particle internalization during Fc γ receptor-mediated phagocytosis. J. Exp. Med. 187:161-176.

Ernst, L.K., A.-M. Duchemin, K.L. Miller, and **C.L. Anderson**. 1998. Molecular Characterization of Six Variant Fc γ Receptor Class I (CD64) Transcripts. Mol. Immunol. 35:943-954

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Maresco, D.L., L.E. Blue, L.L. Culley, R.P. Kimberly, **C.L. Anderson**, and K.S. Theil. 1998. Localization of *FCGR1* encoding Fc γ RI in primates: Molecular evidence for 2 pericentric inversions during the evolution of human chromosome 1. Cell Genetics and Cytogenetics. 82:71-74.

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Lyden, T.W., **C.L. Anderson**, and J.M. Robinson. 2002. The endothelium but not the syncytiotrophoblast of human placenta expresses caveolae. Placenta. 23:640-652.

Takizawa, T., **C.L. Anderson**, and J.M. Robinson. 2002. A new method to enhance contrast of ultrathin cryosections for immunoelectron microscopy. Journal of Histochemistry and Cytochemistry. In Press.

Tridandapani, S., Want, Y., Marsh, C.B., and **C.L. Anderson**. 2002. SH2 domain-containing inositol phosphatase (SHIP) regulates NF κ B-dependent gene transcription by phagocytic Fc γ R. J. Immunol. 169:4370-4378.

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Chaudhury, C., Mehnaz, S., Robinson, J.M., Hayton, W.L., Pearl, D.K., Roopenian, D.C., and **C.L. Anderson**. 2002. The MHC-related Fc receptor for IgG binds albumin and prolongs its lifespan. J. Exp. Med. In press.