PATENT AGENT

Susan Alpert Siegel, Ph.D.

susan.alpert.siegel@klarquist.com

EDUCATION

- Ph.D., Genetics, State University of New York, Stonybrook, 1995
- Ph.D. candidate, Toxicology, Toxicology Program, Department of Applied Biological Sciences, Massachusetts Institute of Technology, 1993
- B.S. with Highest Honors in Environmental Toxicology, Departmental Citation, University of California, Davis, 1982

BAR ADMISSIONS

- U.S. Patent and Trademark Office (Reg. No. 43,121)

YEAR JOINED FIRM

1999

PRACTICE AREAS

Patents: International & Utility

TECHNOLOGIES

Agriculture & Food Science
Green Technology & Renewable Energy
Life Sciences

PRACTICE AREA OVERVIEW

Dr. Siegel prepares and prosecutes U.S., foreign, and international patent applications.

TECHNICAL EXPERTISE

Dr. Siegel has been a registered patent agent for nineteen years. She has a Ph.D. in molecular genetics, completed post-doctoral fellowships in cancer biology and immunology, and did academic research in the field of transplant rejection. She has prosecuted numerous patent applications related to monoclonal antibodies, stem cells, diagnostic assays, vaccines, anti-viral agents, adjuvants, pharmaceuticals, medical devices, cancer treatment, and therapeutics for autoimmune disease.

PRIOR PROFESSIONAL EXPERIENCE

Fish & Richardson, P.C., Menlo Park, CA
Technology Specialist

Stanford University Medical Center, Stanford, CA
Senior Research Scientist, Cardiovascular Medicine

Howard Hughes Medical Institute, Stanford University Medical Center, Stanford, CA
Post-doctoral Fellow (Irvington Institute Fellowship)

University of California, San Francisco, CA
Post-doctoral Fellow (National Institutes of Health Fellowship)

PRESENTATIONS AND PUBLICATIONS

- "Into the Darkness: Patent Eligibility of Natural Products," National Institutes of Health, 2014
- "Changes in Patent Law Affecting the Biosciences Industry," Oregon Bioscience Association, 2014
- Opportunities and Obstacles in the Commercialization of Induced Pluripotent Stem Cells," AUTM 2014 Annual Meeting
- Panelist, "Commercialization of induced pluripotent stem cells," AUTM 2013 Annual Meeting
- "Genes, Biologics, Biomarkers…Are they patentable?" Emory University, 2012
- Patenting Antibodies in the Shadow of Uncertainty, 4th Protein Discovery & Therapeutics Conference, 2011
- America Invents Act and Its Effect on Patent Prosecution, University of Pittsburgh, 2011

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- The relationship of granzyme A and perforin expression to cardiac allograft rejection and dysfunction. Alpert S, Lewis NP, Ross H, Fowler M, Valantine HA. *Transplantation*. 1995 Dec 27; 60(12):1478-85.
- Exposure to shear stress alters endothelial adhesiveness. Role of nitric oxide. Tsao PS, Lewis NP, Alpert S, Cooke JP. *Circulation*. 1995 Dec 15; 92(12):3513-9.
- Expression of granzyme A in salivary gland biopsies from patients with primary Sjögren's syndrome. Alpert S, Kang HI, Weissman I, Fox RI. *Arthritis Rheum*. 1994 Jul; 37(7):1046-54.
- An analysis of the expression of cyclophilin C reveals tissue restriction and an intriguing pattern in the mouse kidney. Friedman J, Weissman I, Friedman J, Alpert S. *Am J Pathol*. 1994 Jun; 144(6):1247-56.
- Precursor cells of mouse endocrine pancreas coexpress insulin, glucagon and the neuronal proteins tyrosine hydroxylase and neuropeptide Y, but not pancreatic polypeptide. Teitelman G, Alpert S, Polak JM, Martinez A, Hanahan D. *Development*. 1993 Aug; 118(4):1031-9.
- The use of granzyme A as a marker of heart transplant rejection in cyclosporine or anti-CD4 monoclonal antibody-treated rats. Chen RH, Ivens KW, Alpert S, Billingham ME, Fathman CG, Flavin TF, Shizuru JA, Starnes VA, Weissman IL, Griffiths GM. *Transplantation*. 1993 Jan; 55(1):146-53.
- Differentiation of CD3-4-8- thymocytes in short-term thymic stromal cell culture. Sen-Majumdar A, Lieberman M, Alpert S, Wiessman IL, Small M. *J Exp Med*. 1992 Aug 1; 176(2):543-51.
- Perforin and granzyme A expression identifying cytolytic lymphocytes in rheumatoid arthritis. Griffiths GM, Alpert S, Lambert E, McGuire J, Weissman IL. *Proc Natl Acad Sci U S A*. 1992 Jan 15; 89(2):549-53.
- Determinants of the B-cell response against a transgenic autoantigen. Skowronski J, Jolicoeur C, Alpert S, Hanahan D. *Proc Natl Acad Sci U S A*. 1990 Oct; 87(19):7487-91.
- Alternative self or nonself recognition of an antigen expressed in a rare cell type in transgenic mice: implications for self-tolerance and autoimmunity. Hanahan D, Jolicoeur C, Alpert S, Skowronski J. *Cold Spring Harb Symp Quant Biol*. 1989; 54 Pt 2:821-35.
- Ultrastructure and electron immunocytochemistry of insulin-producing B-cell tumors from transgenic mice: comparison with counterpart human tumors. Holm R, Varndell IM, Power RF, Bishop AE, Madsen OD, Alpert S, Hanahan D, Polak JM. *Ultrastruct Pathol*. 1988 Sep-Oct; 12(5):547-59.
- Hybrid insulin genes reveal a developmental lineage for pancreatic endocrine cells and imply a relationship with neurons. Alpert S, Hanahan D, Teitelman G. *Cell*. 1988 Apr 22; 53(2):295-308.
- Proliferation, senescence, and neoplastic progression of beta cells in hyperplasic pancreatic islets. Teitelman G, Alpert S, Hanahan D. *Cell*. 1988 Jan 15; 52(1):97-105.
- Expression of cell type-specific markers during pancreatic development in the mouse: implications for pancreatic cell lineages. Teitelman G, Lee JK, Alpert S. *Cell Tissue Res*. 1987 Nov; 250(2):435-9.

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- Non-tolerance and autoantibodies to a transgenic self antigen expressed in pancreatic beta cells. Adams TE, Alpert S, Hanahan D. *Nature*. 1987 Jan 15-21; 325(6101):223-8.
- Transgenic mouse model: a new approach for the investigation of endocrine pancreatic B-cell growth. Power RF, Holm R, Bishop AE, Varndell IM, Alpert S, Hanahan D, Polak JM. *Gut*. 1987; 28 Suppl:121-9.
- Bovine papillomavirus genome elicits skin tumours in transgenic mice. Lacey M, Alpert S, Hanahan D. *Nature*. 1986 Aug 14-20; 322(6080):609-12.

REPRESENTATIVE PATENTS

- Hyposialylation disorders (WO 14/160018)
- Methods for treating a tumor using an antibody that specifically binds GRP94 (8,771,687)
- Defensin-antigen fusion proteins (8,754,030)
- Method of preparing a muscadine pomace extract (8,512,771)
- Humanized monoclonal antibodies that specifically bind and/or neutralize Japanese encephalitis virus (JEV) and their use (8,506,961)
- Methods of altering an immune response induced by CpG oligodeoxynucleotides (8,470,342 and 7,892,569)
- Use of Endostatin peptides for the treatment of fibrosis (8,716,232 and 8,507,441)
- Method for enhancing stem cell trafficking (8,414,881)
- Soluble CD117 (sc-kit) for diagnosis of preeclampsia and eclampsia (8,518,716)
- Detection of infectious prion protein by seeded conversion of recombinant prion protein (EP 2,179,293)
- Molecular identification of *Aspergillus* species (7,384,741)
- Purification of biological preparations (6,310,186)