BIOGRAPHICAL SKETCH

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NAME	POSITION TITLE
Atkinson, Thomas Prescott	**Professor of Pediatrics and Microbiology**
eRA COMMONS USER NAME (credential, e.g., agency login) Patkinso	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
Tulane University, New Orleans LA	BS	05/75	Biology
Emory University, Atlanta GA	PhD	08/86	Experimental Pathology
Emory University, Atlanta GA	MD	05/87	MD

A. Personal Statement

Research in my laboratory is focused on the role of atypical organisms, particularly mycoplasmas, in the pathogenesis of chronic diseases such as asthma and arthritis. I am also actively engaged in the development of rational strategies to determine the molecular basis for unidentified immunodeficiencies in patients in my weekly clinics at Children's Hospital. Such patients often provide valuable insights into critical steps in the function of the human immune system. Over the past 15 years I have mentored 6 clinical fellows during their research projects, one PhD graduate student, and one research post-doctoral fellow as well as numerous summer students. One PhD graduate student is just joining the laboratory to begin his thesis project, which will investigate the prevalence and histopathology of chronic *Mycoplasma pneumoniae* infection in the human lung.

B. Positions and Honors

Positions and Employment

1975 – 1981 Officer, U.S. Navy
1981 – 2000 Officer, Medical Corps, U.S. Naval Reserve
1987 – 1989 Pediatric Residency (PGY 1-2), The Children's Hospital of Alabama (University of Alabama at Birmingham), Birmingham, Alabama
1989 – 1990 Pediatric Residency (PGY 3), Georgetown University/NIH, Washington, D.C.
1989 – 1992 Fellow in Allergy/Immunology, The National Institutes of Health (NIAID), Bethesda, Maryland
1990 – 1991 Chief Medical Staff Fellow, NIAID Allergy & Immunology Fellowship Program
1992 – 1999 Assistant Professor, Division of Allergy and Immunology, Department of Pediatrics, University of Alabama at Birmingham, Birmingham, Alabama (UAB).
1994 – Present Associate Scientist, UAB Comprehensive Cancer Center
1997 – Present Associate Scientist, UAB Center for AIDS Research
1999 – 2008 Associate Professor, Division of Allergy and Immunology, UAB Department of Pediatrics
2001 – 2006 Member U.S. Food and Drug Administration Pulmonary-Allergy Drug Advisory Committee (PADAC)
2003 – Present Director, Division of Allergy, Asthma & Immunology, UAB Department of Pediatrics
2003 – Present Director, UAB Allergy & Immunology Fellowship Training Program
2007 – Present Director, UAB Cellular Immunobiology Flow Cytometry Unit
2008 – Present Professor and Director, Division of Allergy & Immunology, UAB Department of Pediatrics

Other Experience and Professional Memberships

Fellow, American Academy of Allergy and Immunology
Clinical Immunology Society

Honors

1971 Phi Eta Sigma
1975 Phi Beta Kappa, Magna cum Laude Graduate in Biology
1984 Sigma Xi
1987 Alpha Omega Alpha, Magna cum Laude Graduate in Medicine
2007 Joseph E. Suddeth Volunteer of the Year Award, Arthritis Foundation, Alabama Chapter
2008 Earl Brewer Physician Award, Arthritis Foundation

C. Selected Peer-reviewed Publications

High Impact Publications

Lima JO, Zhang L, **Atkinson TP,** Philips J, Dasanayake AP, Schroeder HW Jr. 2000. Early expression of iepsilon, CD23 (FcepsilonRII), IL-4Ralpha, and IgE in the human fetus. *J Allergy Clin Immunol.* 106(5):911-7. PMID:11080714

Hoek KL, Cassell GH, Duffy LB, **Atkinson TP.** 2002. *Mycoplasma pneumoniae*-induced activation and cytokine production in rodent mast cells. *J Allergy Clin Immunol.* 109(3):470-6. PMID:11897994

Chun HJ, Zheng L, Ahmad M, Wang J, Speirs CK, Siegel RM, Dale JK, Puck J, Davis J, Hall CG, Skoda-Smith S, **Atkinson TP,** Straus SE, Lenardo MJ. 2002. Pleiotropic defects in lymphocyte activation caused by caspase-8 mutations lead to human immunodeficiency. *Nature.* 419(6905):395-9. PMID: 12353035

Pastva A, Estell K, Schoeb TR, **Atkinson TP,** Schwiebert LM 2004. Aerobic exercise attenuates airway inflammatory responses in a mouse model of atopic asthma. *J. Immunol.* 172:4520-4526. PMCID:15034069

Bi LL, Pan G, **Atkinson TP**, Zheng L, Dale JK, Makris C, Reddy V, McDonald JM, Siegel RM, Puck JM, Lenardo MJ, Straus SE. 2007. Dominant inhibition of Fas ligand-mediated apoptosis due to a heterozygous mutation associated with autoimmune lymphoproliferative syndrome (ALPS) Type Ib. *BMC Med Genet.* 8:41. PMCID: 17605793

Lai JF, Zindl CL, Duffy LB, **Atkinson TP,** Jung YW, van Rooijen N, Waites KB, Krause DC, Chaplin DD. 2010. Critical role of macrophages and their activation via MyD88-NFκB signaling in lung innate immunity to *Mycoplasma pneumoniae*. *PLoS One*. 5(12):e14417. PMID:21203444

Selected Recent Publications

Hoek KL, Duffy, LB Cassell GH, **Atkinson TP.** 2005. A role for the *Mycoplasma pneumoniae* adhesin P1 in interleukin (IL)-4 synthesis and release from rodent mast cells. *Microb. Pathogen.* 39-149-58. PMCID: 16169702

Fischer R, McGhee JR, Vu HL, **Atkinson** TP, Jackson RJ, Tome D, Boyaka PN. 2005. Oral and nasal sensitization promote distinct immune responses and lung reactivity in a mouse model of peanut allergy. *Am. J. Pathol. 167(6):*1621-30. PMCID: 16314475

Nabe T, Zindl CL, Jung YW, Stephens R, Sakamoto A, Kohno S, **Atkinson TP**, Chaplin DD 2005. Induction of a late asthmatic response associated with airway inflammation in mice. *Eur. J. Pharmacol.* 521:144-55. PMCID: 16182277

Endo L.M., Rowe SM, Romp SL, Buckmaster MA, **Atkinson TP**. 2007. Pulmonary aneurysms and intracardiac thrombi due to Behcet's disease in an African-American adolescent with oculocutaneous albinism. *Clin.Rheumatol.* 26:1537-9. PMCID: 17047893

Atkinson TP, Dai Y. 2007. Activation induced changes in alternate splice acceptor site usage. *Biochem Biophys Res Comm.* 358:590-5. PMCID: 17498651

Kraft M, Adler KB, Ingram JL, Crews AL, **Atkinson TP**, Cairns CB, Krause DC, Chu HW. *Mycoplasma pneumoniae* increases MUC5AC in airway epithelial cells preferentially in asthma. *J Allergy Clin Immunol.* 31:43-6. PMCID: 18166592

Luo D, Dai Y, Duffy LB, **Atkinson TP.** 2008. Inhibition of message for FcεRI alpha chain blocks mast cell IL-4 production induced by co-culture with *Mycoplasma pneumoniae. Microb. Pathog.* 44:286-92. PMCID: 18042342

Atkinson TP, Balish MF, Waites KB. 2008. Epidemiology, clinical manifestations, pathogenesis and laboratory detection of *Mycoplasma pneumoniae* infections. *FEMS Microbiol Rev*. 32(6):956-73. 18754792

Waites KB, Balish MF, **Atkinson TP**. 2008. New insights into the pathogenesis and detection of *Mycoplasma pneumoniae* infections. *Future Microbiol*. 3(6):635-48. PMCID: 19072181

Atkinson TP, Duffy LB, Pendley D, Dai Y, Cassell GH. 2009. Deficient immune response to *Mycoplasma pneumoniae* in childhood asthma. *Allergy Asthma Proc*. 30(2):158-65. PMCID 19463205

Waites KB, **Atkinson TP**. 2009. The role of mycoplasma in upper respiratory infections. *Curr Infect Dis Rep.* 11(3): 198-206. PMCID 19366562

Donnithorne KJ, **Atkinson TP**, Hinze CH, Nogueira JB, Saeed SA, Askenazi DJ, Beukelman T, Cron RQ.2009. Rituximab therapy for severe refractory Henoch-Schönlein purpura. *J. Pediatr* 155(1):136-9. PMCID:19559299

Xiao L , **Atkinson TP**, Hagood J, Makris C, Duffy LB, Waites KB. 2009. Emerging macrolide resistance in *Mycoplasma pneumoniae*: Detection and characterization of resistant isolates. *Ped Infect Dis* J. 28(8):693-6. PMCID: 19633515

Atkinson TP, Boppana S, Theos A, Clements LS, Xiao L, Waites K. 2011. Stevens-Johnson syndrome in a boy with macrolide-resistant *Mycoplasma pneumoniae* pneumonia. Pediatrics. 127(6):e1605-9. PMID: 21536614

Boyd A, Yang CT, Estelle K, Tuggle C, Gerald LB, Dransfield M, Bamman M, Bonner J, **Atkinson TP**, Schwiebert LM. 2012. Feasibility of exercising adults with asthma: a randomized pilot study. Allergy Asthma Clin Immunol. 8(1):13. [Epub ahead of print] PMID: 22863207.

Atkinson TP. 2013. Is asthma an infectious disease? New evidence. Curr Allergy Asthma Rep. [Epub ahead of print] PubMed PMID: 24091724.

D. Research Support

Ongoing Research Support

Atkinson (PI) 01/01/12-12/31/13
Children's Center for Research and Innovation, Children's Hospital of Alabama
Virulence Mechanisms in Ureaplasma Infection
The aims of this project are to characterize the down-modulation of expression of antimicrobial peptides at the mRNA and protein level and to examine the mechanism of down-modulation of antimicrobial gene expression by ureaplasmas.
Role: PI

Completed Research Support

5R21 AI083873-02 Atkinson (PI) 07/22/09-06/30/11,
Emerging macrolide resistance in *Mycoplasma pneumoniae*
The goals of this study are to assess the current level of macrolide resistance in circulating isolates of *Mycoplasma pneumoniae*, determine whether the presence of macrolide resistance affects the clinical course of infection, and to perform molecular typing of isolates to determine whether resistance is arising in particular subtypes of *M. pneumoniae*.
Role: PI

P01 HL073907 Martin (Program Director) 07/05/04-03/31/09
NIH/NHLBI
The effect of mycoplasma on chronic asthma
Project 4. Mechanism of mycoplasma-induced mast cell IL-4
The major goals of this project are to identify and characterize the molecular mechanisms of mast cell activation by M. pneumoniae both in vitro and in a mouse model of infection and to investigate using the mouse model of infection the effect of M. pneumoniae infection in the lung on TH2 CD4+ lymphocyte recruitment
Role: Project Co-PI

Atkinson (PI) 01/01/08-12/31/09
Children's Center for Research and Innovation, Children's Hospital of Alabama
Complement C6 null mutations in premature deliveries
The aims of this project are to characterize the prevalence of complement C6.null alleles among extremely premature neonates and their mothers and to study the effect of a recombinant dominant negative C6 protein in a mouse model of LPS-induced premature delivery.
Role: PI

Atkinson (PI) 01/01/06-12/31/07
Children's Center for Research and Innovation, Children's Hospital of Alabama
Activation-induced splice variants: investigation of functional consequences of a novel mechanism of regulated structural variation in multiple genes.
The aims of this project are to continue exploring the role of splice variants in TCRζ for possible roles in the regulation of T-cell activation and autoimmunity.
Role: PI