

Curriculum Vitae

General Information

Name: Morna J. Dorsey, MD, MMSc
Office Address: Children's Research Institute, 601 4th Street South, 4th Floor
St. Petersburg, Florida 33701
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Education:

1993 B.S. College of William and Mary, Williamsburg VA
1999 M.D. University of South Florida, Tampa FL
2005 M.MSc. Harvard Medical School, Boston MA

Postdoctoral Training:

1999-2000 Medical Intern, Department of Pediatrics
All Children's Hospital, University of South Florida College of Medicine, St Petersburg FL
2000-2002 Medical Resident, Department of Pediatrics
All Children's Hospital, University of South Florida College of Medicine, St Petersburg FL
2002-2005 Fellow in Allergy and Immunology
Children's Hospital Boston, Harvard Medical School, Boston MA

Appointments:

2005-present Assistant Professor, Department of Pediatrics and Medicine, Division of Allergy/Immunology
All Children's Hospital, University of South Florida College of Medicine, St Petersburg FL
2005-present Director, Allergy Clinics, All Children's Hospital, University of South Florida College of
Medicine, St Petersburg FL
2007-present Program Director, Allergy and Immunology Fellowship Training Program, Department of
Pediatrics, Division of Allergy/Immunology, All Children's Hospital, University of South Florida
College of Medicine, St Petersburg FL

Licensure and Certification:

2001 United States Medical Licensing Examinations Step I, II, III
2002 American Board of Pediatrics
2002-Present Massachusetts Medical License
2005-Present Florida Medical License
2005 American Board of Allergy and Immunology

Professional Societies:

Federation of Clinical Immunology Societies
2005-Present Member
Clinical Immunology Society
2005-Present Member
Florida Allergy Asthma and Immunology Society
2005-Present Member
American Academy of Allergy Asthma and Immunology
2003-Present Member
American College of Allergy Asthma and Immunology
2003-Present Member

Volunteer Service Related to Professional Work:

2003 Volunteer physician for China Adoption With Love Incorporated, Hunan Province, China
1996-1997 Co-chair Ronald McDonald House Pediatric Subinternship, U. South Florida
2007-2008 Preceptor, Pediatric Physical Diagnosis Course, U. South Florida College of Medicine

2007-2008 Participant, Scientist for a Day, Children's Research Institute, U. South Florida College of Medicine

Journal Reviewer:

2002 Reviewer for Pediatrics supplement "Best Articles in Allergy/Immunology"
2005-Present Pediatrics
2005-Present Annals of Allergy, Asthma and Immunology
2008-Present Clinical Immunology

Committees and Boards:

2005-Present Member, Asthma Committee, All Children's Hospital, St. Petersburg, FL
2007 Member, Steering Committee PCIS, All Children's Hospital, St Petersburg, FL
2007-Present Member, University of South Florida College of Medicine Faculty Search Committee, Tampa, FL
2007-Present Member, University of South Florida College of Medicine Research Committee, Tampa, FL
2007-Present Judge, University of South Florida Research Day, Poster Presentation, Tampa, FL
2007-Present Member, Women's Involvement in AAAAI Committee
2008-Present Member, New Allergist/Immunologist Assembly, AAAAI
2008-Present Member, Basic & Clinical Immunology Committee, ACAAI
2008-Present Member, Abstract Review Committee, AAAAI

Awards and Honors:

1992 Mortar Board Honor Society, The College of William and Mary
1993 State of Virginia Japanese Speech Contest, 2nd Place
1994 Benjamin Stoddard Ewell Award for Outstanding Leadership, The College of William and Mary
1996 Summer Research Fellowship Award, U. South Florida
2003-2005 National Institute of Health Loan Repayment Program Award for Research in Pediatrics
2003, 2004 Allergy Fellow Symposium Nominee
2004, 2005 Fellow in Training Travel Scholarship for AAAAI Meeting
2005 Clinical Immunology Society Primary Immunodeficiency Summer School
2006 All Children's Hospital Pediatric Clinical Research Center Pilot Grant Award "Immunologic Mechanisms of Allergy and Asthma."
2006 Signature Program in Allergy Asthma and Immunology Award Recipient
2007 Recognition as Best Articles Relevant to Pediatric Allergy and Immunology, Pediatrics 2007;120:0. "Assessment of Adrenal Suppression in Children with Asthma Treated with Inhaled Corticosteroids: Use of DHEA-Sulfate as a Screening Test."
2008 Society for Pediatric Research

Research Interests: Asthma, Primary Immunodeficiency, Atopic Dermatitis, Food Allergy

Mentorships:

Leslie Song, B.S. Premedical Student: Influenza vaccine clinical research project 2003
Rima Sanka, D.O. Allergy and Immunology Fellow: Red tide clinical research project 2005
Jennifer Woodard, M.D. Pediatric Resident: Amyloidosis in Familial Mediterranean Fever Syndrome 2007 - 2008
Rene Ruiz, M.D. Neonatology Fellow: Regulatory T cells in term and preterm infants 2007-2008
Annette Cabioc, M.D. Medicine-Pediatric Resident: TNF production in Food Protein-induced Enterocolitis 2008
Ileana Arbona-Ramirez, M.D. Neonatology Fellow: Regulatory T cells in infants born to atopic mother 2008

Bibliography:

Selected peer-reviewed publications.

Schneider-Yin, X., L. Gouya, **M.Dorsey**, U.Rufenacht, J.Deybach, G.Ferreira. "Mutations in the Iron-Sulfur Cluster Ligands of Human Ferrochelatase Lead to Erythropoietic Protoporphyrin." Blood. 2000; 96: 1545-9.

K.M. Gura, S.K.Parsons, L.J. Bechard, T.Henderson, **M.Dorsey**, W.Phipatanakul, C.Duggan, M.Puder, C.Lenders. "Use of a Fish Oil-Based Lipid Emulsion to Treat Essential Fatty Acid Deficiency in a Soy Allergic Patient Receiving Parenteral Nutrition." *Clinical Nutrition* 2005;24(5):839-47

M.J. Dorsey, L.E. Cohen, W.Phipatanakul, D.Denufrio, L.C. Schneider. "Assessment of Adrenal Suppression in Children with Asthma Treated with Inhaled Corticosteroids: Use of DHEA-Sulfate as a Screening Test." *Annals of Allergy, Asthma & Immunology* 2006 Aug;97(2):182-6.

M.J. Dorsey, J.S. Orange. "Impaired Specific Antibody Response and Increased B cell Population in Transient Hypogammaglobulinemia of Infancy." *Annals of Allergy, Asthma & Immunology* 2006 Nov;97(5):590-5.

M. Sanka, N. Tangsinmankong, M. Loscalzo, J.W. Sleasman, **M.J. Dorsey**. "Complete DiGeorge Syndrome Associated with CHD7 Mutation." *Journal of Allergy and Clinical Immunology* 2007 Oct;120(4):952-4.

M.J. Dorsey, A. Petrovic, M.R. Morrow, J.W. Sleasman. "Immunologic reconstitution of FOXP3 Regulatory T cells in IPEX following bone marrow transplantation." *Immunological Research* 2009. Accepted.

M.J. Dorsey, M.Dowd, N. Tangsingmankong, D. Siri, A. Hartel, K. Brauer, N. Umeh, N. Day, J.W. Sleasman. "Correlation between Mannose-binding Lectin Deficiency and Immunoglobulin Subclass 4 in Children with Recurrent Infection." Manuscript in Preparation.

Abstracts.

D.R. McDonald, **M.J. Dorsey**, A. Dioun. "Successful Intrathecal Methotrexate Desensitization after an Adverse Reaction." *Journal of Allergy and Clinical Immunology* (2004) Abstract Supplement for American Academy of Allergy Asthma and Immunology.

M.J. Dorsey, J.S. Orange, "Clinical and Laboratory Characteristics of 24 Patients with Hypogammaglobulinemia." *Journal of Allergy and Clinical Immunology* (2004) Abstract Supplement for American Academy of Allergy Asthma and Immunology.

M. Dorsey, A.Timmons, H.Oettgen, L.Schneider. "Flu Vaccine and Egg Allergy." *Journal of Allergy and Clinical Immunology* (2005) Abstract Supplement for American Academy of Allergy Asthma and Immunology.

M. Sanka, R. Nickeson, J.W. Sleasman, **M.J. Dorsey**. "Sweet Syndrome-The Youngest Case Presenting in a 12 Day Old Female." *Annals of Allergy Asthma & Immunology* (2006) Abstract Supplement for American College of Allergy and Immunology.

M.J. Dorsey, A. Petrovic, M.R. Morrow, L. Dishaw, J.W. Sleasman. "FOXP3 Expression in IPEX Syndrome Following Bone Marrow Transplantation." *Federation of Clinical Immunology Society* 2007. *Clinical Immunology* 2007, 123, S3-S128.

R. Ruiz, M. Morrow, **M.J. Dorsey**, J.W. Sleasman. "Analysis of Foxp3 Protein Expression in Term and Preterm Infant Cord Blood CD4⁺CD25⁺ T cells." *NEO: The Conference for Neonatology*, February 7-10, 2008, Orlando, FL

J.L. Woodard, J.W. Sleasman, **M.J. Dorsey**. "Selective B cell lymphopenia associated with systemic amyloidosis in a patient with familial Mediterranean fever." *Federation of Clinical Immunology Society* June 5 – 9, Boston, Massachusetts.

M.J. Dorsey, M. Morrow, J.W. Sleasman. "Differential Expression of Naïve Phenotype T Regulatory Cells in Allergic Asthmatics vs Healthy Age-matched Controls." *Journal of Allergy and Clinical Immunology* (2009) Abstract Supplement for American Academy of Allergy, Asthma and Immunology.

Teaching:

Updated September 2008

University of South Florida College of Medicine, Scholars in Patient Oriented Research K30 Program: Course # GMS6844, Introduction to Patient-Oriented Research

University of South Florida College of Medicine, 2nd Year Medical Students: Course # BMS6830, Physical Diagnosis

Invited Lectures:

University of South Florida Allergy and Immunology Lecture Series World Wide Web, St Petersburg FL, “Asthma Pathogenesis” September 2005.

University of South Florida Allergy and Immunology Lecture Series World Wide Web, St. Petersburg FL, “Immunologic Mechanisms of Atopic Dermatitis” October 2006, August 2007

University of South Florida Allergy and Immunology Lecture Series World Wide Web, St Petersburg FL, “Role of Regulatory T Cells in Allergy” August 2007.

Update in Allergy and Immunology University of South Florida CME, Tampa, FL, “Allergic March”, September 2007

All Children’s Hospital Research Day, St. Petersburg, FL, “Assessment of Regulatory T cells in IPEX and Allergic Asthma”, November 2007

Florida Allergy, Asthma, and Immunology Society, Sarasota, FL, “Asthma in Adolescents”, June 2008.

K30 Program, University of South Florida College of Medicine, “Making the Most Out of the K30 Program”, August 2007, July 2008.

Update in Allergy and Immunology University of South Florida CME, Orlando, FL “Recurrent Infections, When to Suspect Primary Immunodeficiency”, September 2008.

Research Support:

T Regulatory Cells in Allergic Asthma

Status: Active

Role: Principal Investigator

Funding: Signature Program in Allergy Immunology Infectious Disease, University of South Florida

Total Direct Costs: \$35,000

Time Period: November 2006 – November 2008

Description: This is an active investigator-initiated translational research project with 60 subjects recruited to date. The specific aims of this project include establishing normal values for T regulatory cells in the pediatric population as well as comparing T regulatory cell numbers and function between allergic asthmatics and age-matched control subjects. Laboratory techniques employed include flow cytometry-based assay of cell surface markers including CD4, CD25, CD127, intracellular cytokines (IFN γ , IL-4, IL-10) as well as intranuclear FOXP3 staining. Additional characterization of Tregs include cell-surface staining for homing and innate immune markers.

Measurement of Airways Inflammation in Children Exposed to Red Tide

Status: Active

Role: Principal Investigator

Funding: State of Florida Red Tide Mitigation and Control Program

Total Direct Costs: \$65,000

Time Period: November 2007 – July 2009

Description: This is an investigator-initiated clinical research project with a recruitment goal of 50 subjects, that investigates the presence of airways inflammation in children with asthma who are exposed to red tide (or harmful algal blooms) that plagues the East Coast of the U.S. The specific aims of this project include determining whether the pathogenesis of symptoms that occur in the pediatric asthma population during *Karenia brevis* exposure are related to an inflammatory response by assessment of exhaled nitric oxide levels using the Niox monitor. The goal of this study is to
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understand the health implications of harmful algal blooms in children.

Effects of Brevetoxin in Human Immune Cells

Status: Active

Role: Co-Investigator (CJ Walsh, PI)

Funding: NOAA 1R03ES014452-01

Total Direct Costs: \$230,623 (annual direct costs)

Time Period: October 2005 – October 2008

Description: This study is designed to investigate if brevetoxins alter gene expression profiles in human immune cell lines. Specifically, if inflammatory cytokines such as IL-2, IL-4, IL-5, IL-10, IL-13, IFN-g can be induced, causing an inflammatory cellular response that contributes to sinopulmonary symptoms seen in humans exposed to red tide. My contribution to this project includes investigating the relationship between brevetoxin exposure and asthma exacerbation in the pediatric population.

Pathogenesis of Asthma and Atopic Disease

Status: Active

Role: Principal Investigator

Funding: HRSA IC76HF00920-01

Funding received from Health Resources and Services Administration, Department of Human Services through All Children's Hospital Pediatric Clinical Research Center

Total Direct Costs: \$100,000

Time Period: February 2006 – May 2007

Description: This grant is utilized to start up the Asthma Pathogenesis Program at the University of South Florida, All Children's Hospital. Patients seen in the Allergy/Immunology Clinics undergo careful pulmonary evaluation that includes pulmonary function testing and fractional exhaled nitric oxide measurements using the Niox monitor, as well as extensive allergy testing, and careful history. Patients are seen in follow up to monitor changes in clinical status following medical interventions and in some patients, to assess changes after initiation of omalizumab therapy and immunotherapy.

Adrenal Suppression and Cytokine Profiles in Asthmatic Children Treated With Inhaled Corticosteroids

Status: Completed

Role: Principal Investigator

Funding: Funded by Children's Hospital of Boston, Harvard Medical School General Clinical Research Center while working as Clinical Fellow under NRSA Training Grant T32-AI007512 NIH/NIAID.

Time Period: January 2004 – May 2005

Description: This project was designed to identify prevalence of adrenal suppression and its clinical significance based on sensitive of methods of detection. This project established that medium doses of various IC preparations can result in suppression of adrenal gland function. LD cosyntropin test is a sensitive but cumbersome method of monitoring adrenal suppression. We established that serum DHEA-S measurement is a practical surrogate measurement to identify patients at risk for HPA axis dysfunction who need further definitive studies of adrenocortical function.

Clinical and Immunologic Features of Transient Hypogammaglobulinemia of Infancy

Status: Completed

Role: Principal Investigator

Funding: Self-funded while working as Clinical Fellow under NRSA Training Grant T32-AI007512 NIH/NIAID.

Time Period: January 2004 – May 2005

Description: This was study designed to prospectively follow a large cohort of patients with transient hypogammaglobulinemia of infancy. A few novel findings were described in recently obtained preliminary data. A large number of patients had CD19+ B-cells greater than 95% for age. There was a significant association with presenting IgG z-score and duration of disease. Finally, an impaired response to protein antigens as demonstrated by poor vaccine-specific antibody response was identified. These observations may result from an intrinsic defect affecting B cell regulation. Additional research is planned to investigate potential molecular mechanisms.