

Alan Koterba, M.D., Ph.D.
Elena E. Perez, M.D., Ph.D.
Kayla Curran, PA-C



Adult/Pediatric Allergy & Immunology

Curriculum Vitae

PERSONAL

Elena E. Perez, MD/PhD, FAAAAI
561-626-2006 (office)
United States Citizen

I. HIGHER EDUCATION

Institutional:

- University of Florida; B.S. Microbiology; 1991
- University of Florida; M.D. Medicine; 1998
- University of Florida; Ph.D. Interdisciplinary Biomedical Sciences; 1998
- Children's Hospital of Philadelphia; Intern and Resident in Pediatrics; 1998-2001
- Children's Hospital of Philadelphia; Fellowship in Allergy and Immunology; 2001-2004
- University of Pennsylvania; Post-doctoral research fellow; 2002-2004

Board Certifications:

- **Diplomat, American Board of Pediatrics**, Certificate # 073727,
Original Certification: October 16, 2001; Re-certification: September 30, 2008
- **Diplomat, American Board of Allergy & Immunology (ABAI)**, Certificate #5101
Original Certification: October 14, 2005
- ABAI Maintenance of certification up to date through 2026

Licensure:

- State of Florida Board of Medicine, ME103841 02/27/2009-01/31/2023
- Commonwealth of Pennsylvania Department of State MD071411L 06/16/2000-12/31/2008

II. EXPERIENCE

- Children's Hospital of Philadelphia; Instructor, Pediatrics; 1998-2001
- Children's Hospital of Philadelphia/University of Pennsylvania; Instructor, Allergy and Immunology; 2004-2005
- Children's Hospital of Philadelphia "CHOP" Connection; Attending Physician, Pediatric Hospitalist, Chester County Hospital; 2001-2008
- Children's Hospital of Philadelphia; Attending Physician; 2004-2009
- University of Pennsylvania School of Medicine; Assistant Professor of Pediatrics; 2005-2009
- University of South Florida; Assistant Professor of Pediatrics, Division of Allergy, Immunology and Rheumatology; 2009- 2011
- All Children's Hospital; Attending Physician; 2009-2012
- Children's Research Institute, Research Laboratory Director, Division of Allergy, Immunology, Rheumatology, University of South Florida, St. Petersburg 2009-2012. Supervised CLIA certified flow cytometry panels for lymphocyte subsets (T, B, NK) including sign off/interpretation, trouble shooting, and quality control. Reviewed QC and proficiency testing for 2009-2012. Also supervised research projects including molecular work, cell culture, blood cell separation, cryopreservation and cell sorting using BD instruments.
- Associate Professor of Pediatrics, Division of Allergy, Immunology and Rheumatology, University of South Florida; 2011- 2012
- Associate Professor of Pediatrics; University of Miami 2013-2015 Clinical Educator Track, Department of Pediatrics
- Allergy Associates of the Palm Beaches, Associate 2016, partner 2018-Present

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HONORS AND AWARDS

1992-1997	Minority Pre-doctoral Fellowship Award, National Institute of General Medical Sciences
1992-1995	President, Medical Class of 1995, University of Florida College of Medicine
1994	Award for Outstanding Academic Achievement and Leadership, University of Florida College of Medicine
1995	Class Contribution Award from Medical Class of 1995, University of Florida College of Medicine
2001	Selection to the Clinical Immunology Society-Summer School in Clinical Immunology
2002-2003	Glaxo Smith Kline Allergy/Immunology Fellowship Award, Children's Hospital of Philadelphia
2006-2007	McCabe Award for Research, University of Pennsylvania
2010	Recognition for Service as Chair of the Primary Immunodeficiency Disease Committee, American Academy of Allergy, Asthma and Immunology
2012	Recognition award for leadership, dedication and service as the Primary Immunodeficiency Disease Committee Chair 2009-2012
2012	Fellow of the American Academy of Allergy Asthma and Immunology

SOCIETY MEMBERSHIPS

1998-present	American Academy of Pediatrics (AAP)
2001-2004	American College of Allergy Asthma and Immunology (ACAAI)
2001-present	Clinical Immunology Society (CIS)
2001-present	American Academy of Allergy Asthma and Immunology (AAAAI)
2007	Society for Pediatric Research (SPR)
2012	Fellow, American Academy of Allergy Asthma and Immunology (AAAAI)
2010	Florida Allergy Asthma and Immunology Society (FAAIS)
2019	Blood Products Advisory Committee Member (BPAC)
2023	Medical Advisory Committee for Immune Deficiency Foundation

EDITORIAL BOARDS

Reviewer, Clinical Immunology
Reviewer, American Society of Microbiology Journals
Reviewer, Frontiers in Immunology
Abstract Reviewer, American Academy of Allergy Asthma and Immunology
Abstract Reviewer, Clinical Immunology Society

TEACHING

1998-2001	Instructor Pediatrics , University of Pennsylvania
2001-2004	Daily Fellow rounds with Pediatric Residents
2004	Course Instructor , Children's Hospital of Philadelphia Allergy, Immunology, and Infectious Diseases Review Course for the Primary Care Physician (CME Program)
2004	Course Instructor , Children's Hospital of Philadelphia, Primary Immunodeficiency: A Window of Opportunity for the Primary Care Provider (CME Program)
2004-2008	Attending Clinical Rounds with Inpatient Immunology Team Children's Hospital of Philadelphia, daily for three months/year
2004-2008	Clinical Outpatient Resident and Fellow Teaching , weekly during immunology outpatient clinic, Children's Hospital of Philadelphia. [Fellows trained: Meredith Heltzer, MD, David Naimi, MD, Gary Pien, MD, Audrey Park, MD, Laura Gober, MD, Soma Jyonouchi, MD, Lisa Forbes, MD, Rushani Saltzman, MD]
2005	Course Instructor , Children's Hospital of Philadelphia Ninth Annual Practical Review for the Clinician, Pediatric Allergy, Immunology and Infectious Diseases. Immunodeficiency Case Presentations. (CME)
2007-2008	Course lecturer, CAMB510-001 : University of Pennsylvania Graduate Group, Cell and Molecular Biology Immunology for CAMB Students, "Gene Therapy for Primary Immunodeficiency." [The purpose of this course is to give a thorough grounding in Immunology to Cell and Molecular Biology graduate students with an emphasis on the role of the immune system in combating infectious and neoplastic diseases and its role in immunopathological states such as autoimmunity and allergy. This is a required course for CAMB students in the Microbiology, Virology

and Parasitology program and the Vaccine and Gene Therapy program of the University of Pennsylvania Graduate School.]

- 2008-2012 **Member, Graduate Student Doctoral Dissertation Committee** for Jessica Taffe, University of Pennsylvania. [Provided mentoring and guidance for preliminary exam, and provided feedback at all committee meetings]
- 2009-2012 **Weekly Attending Clinical Rounds with Inpatient Immunology Team**, All Children's Hospital [Fellows trained: Woei Eng, MD, Jason Caldwell, DO, Panida Sriaroon, MD, Maliena Longley, MD, Loren Isakson, MD, Hava Ladinsky, MD, Jean Brown, MD]
- 2009-2012 **Weekly Attending Clinical Outpatient Resident Elective and Fellow teaching during Allergy Immunology Outpatient Clinic**, USF/All Children's Hospital. [Fellows trained: Woei Eng, MD, Jason Caldwell, DO, Panida Sriaroon, MD, Maliena Longley, MD, Loren Isakson, MD; Visiting residents: Jean Brown, MD]
- 2009-2012 **Research laboratory mentor for medical, premedical, predoctoral, and undergraduate students:** [Students trained: David Kellogg (dental-Columbia), Olivia Potter (medical-NOVA), Erin Kellner (medical-USF), Stephanie Hudey (premedical), Shikeria Green (premedical-USF)]
- 2009 **Course instructor**, All Children's Hospital Practical Pediatrics Pasco County, FL "Approach to Food Allergy in Children", (CME Program)
- 2009 **Course instructor**, St. Jude Hospital "Lunch and Learn HIV session" Teleconference for USF and St. Jude Hospital, "ZFN technology for treatment of HIV" St. Petersburg, teleconferenced to Tennessee.
- 2010 **Course instructor**, University of South Florida, Allergy and Immunology Fellowship Program Lecture Series, "T Cell and Combined Immunodeficiencies." February 10, 2010.
- 2010 **Course instructor**, University of South Florida, Allergy and Immunology Fellowship Program Research Lecture Series, "Creating HIV resistant T cells using Zinc Finger Nuclease Technology" August 27, 2009.
- 2010 **Preceptor**, University of South Florida Allergy and Immunology Fellowship Program Board Review Lecture Series, "Effector Mechanisms of Cell Mediated Immunity" January 8, 2010
- 2010 **Preceptor**, University of South Florida Allergy and Immunology Fellowship Program Board Review Lecture Series, "Congenital and Acquired Immunodeficiencies" April 23, 2010
- 2010 **Preceptor**, Pediatric Board Review University of South Florida Pediatric Residents, Tampa, Florida, April 2010
- 2010 **Course instructor**, Immune Deficiency Foundation, Miami Children's Hospital. "Laboratory Testing and Diagnosis of Primary Immunodeficiency Disorders," Miami, Florida (CME Course)
- 2010-2012 **Course instructor, BMS 6200 PMIID**, Molecular basis of primary immunodeficiency diseases and clinical presentation. Starting Fall 2010.
- 2012-2015 **Course Director, Resident Elective rotation in Pediatric Allergy/Immunology**, University of Miami. [residents trained include from Internal Medicine, Med Peds, and Pediatrics Residency program at JMH: Lina Maichel MD, Luz Barahona MD, Hayley Alfanador MD, Carolyn Kienstra MD, Rebecca Kimsey MD, Giovanna Beauchamp Richards MD, Tessa Bandham MD, Magdalenis Gongora MD, Carolina Mendoza MD, Saisha Muniz-Alers MD, Marytery Fajardo MD, Mihai Dumitrescu MD, Babak Moghimi MD, Caroline Caperton MD, Loann, Huring MD, Rafle Fernandez MD, Amrita Baghat MD, Nicole Cooper MD, Tynsia Harvey MD, Katarzyna Bigaj MD,]
- 2013-2015 **Course Director, Medical Student elective (MDR Course #973)** [Students trained: Molly McGetrick, Jacqueline Squire, Anam Mendha, Jessica Hochberg, Ann Kurian, Melissa Stone, Abbye Degan]
- 2013-2015 **Course Director, International Observership in Pediatric Allergy/Immunology for The William J. Harrington Medical Training Programs for Latin America, the Caribbean, and Global Observerships.** Countries represented include: Romania, Ecuador, Mexico, Columbia, Brazil, Chile, India, and others. [Students trained: Juan Lopez Zertuche, Ha Na Kim, Lorena Flor, Isabel Velez, Cynthia Arana, Olga Castiblanco, Mahathi Indaram, Andrea Caceres, Mariana de Melo, Nataly Sanchez, Nicole Diaz, Angela Bastides]
- 2013-2015 **Pediatric Review Course for JMH Residents**, yearly review sessions.
- 2014-2015 **Pediatric Academic Half Day.** LECTURED to pediatric residents on topics in allergy/immunology for board preparation.

RESEARCH AND SCHOLARLY ACTIVITIES

NIH and Investigator Initiated Research Awards

- 1995 **Co-Investigator**, National Institute of General Medical Sciences (NIGMS) Minority Predoctoral Fellowship Program, 5-31CM014899
- 2003 **Recipient**, Glaxo SmithKline Allergy Fellowship Award
- 2003-2004 **Co-Investigator**, Ruth L. Kirschstein National Research Service Award, 5-T32-HL07776-09
- 2004-2010 **Principal Investigator, K08 AI062468-6** "Generation of HIV Resistant Primary CD4 T cells," [\$116,262/year] This study aims to develop gene translational therapies using genetically modified CD4T cells for the treatment of HIV
- 2005-2006 **Co-Investigator**, K12 Children's Health Research Career Development Award, National Institute of Child Health and Human Development, (NICHD)
- 2006-2007 **Principal Investigator**, McCabe Award, University of Pennsylvania, AAV2 as a vector for gene therapy in stem cells
- 2007-2009 **Principal Investigator**, Development of CCR5 ZFNs in HIV Therapy, Sponsored Research Agreement through Children's Hospital of Philadelphia, Sangamo Biosciences

Funding

- 2004-2010 **Principal Investigator, K08 AI062468-6** "Generation of HIV Resistant Primary CD4 T cells," [\$116,262/year] This study aims to develop gene translational therapies using genetically modified CD4T cells for the treatment of HIV
- 2009-2012 **Principal Investigator, R03AI083904-9** "Uncovering Costimulatory T-cell Help Defects in Common Variable Immunodeficiency Disease (CVID)" [\$50,000/year] This study examined T-cell help in subjects with CVID and normal healthy donors, in search of deficits in immune co-stimulation required for antibody production.
- 2009-2011 **Principal Investigator, All Children's Hospital Foundation, Institutional Grant** "Investigation of T-cell help deficits in Primary Immunodeficiency diseases using a novel artificial antigen presenting cell system to deliver co-stimulatory signals to T-cells" [\$50,000/year]
- 2011-2012 **Principal Investigator**, CSL Behring Investigator Initiated Research Grant, Examining the cost differential of early versus late diagnosis of Severe Combined Immunodeficiency Disease.
- 2015 **Principal Investigator**, Horizon Pharma Investigator Initiated Research Grant, The role of Perforin 2 in Chronic Granulomatous Disease

Clinical Research Experience – please see last page for detailed list

PEER REVIEWED PUBLICATIONS

1. Barrie KA, **Perez E**, Lamers SL, Farmerie WG, Dunn BM, Sleasman JW, Goodenow MM. Natural variation in HIV-1 protease, Gag p7 and p6, and protease cleavage sites within gag/pol polyproteins: amino acid substitutions in the absence of protease inhibitors in mothers and children infected by human immunodeficiency virus type 1. **Virology**. 219(2): 407-16, May 15 1996.
2. **Perez E**, Rose SL, Peyser B, Lamers SL, Burkhardt B, Dunn BM, Hutson AD, Sleasman JW, Goodenow MM. Human immunodeficiency virus type 1 protease genotype predicts immune and viral responses to combination therapy with protease inhibitors (PIs) in PI-naive patients. **Journal of Infectious Diseases**. 183(4): 579-88, February 15 2001.
3. Goodenow MM, Bloom G, Rose SL, Pomeroy SM, O'Brien PO, **Perez E**, Sleasman JW, Dunn BM. Naturally occurring amino acid polymorphisms in human immunodeficiency virus type 1 (HIV-1) Gag p7 (NC) and the C-cleavage site impact Gag-Pol processing by HIV-1 protease. **Virology**. 292(1): 137-49, January 5 2002.
4. **Perez E**, and Sullivan, KE, Chromosome 22q11.2 deletion syndrome (DiGeorge syndrome/velocardiofacial syndrome). **Current Opinion in Pediatrics**. 14(6): 678-83. December 2002.
5. **Perez E**, Boksaczanin A, McDonald-McGinn D, Zackai EH, Sullivan KE. Safety of live viral vaccines in patients with chromosome 22q11.2 deletion syndrome (DiGeorge syndrome/velocardiofacial syndrome). **Pediatrics**. 112(4): e325, October 2003.
6. **Perez E**, Riley JL, Carroll RG, von Laer D, June CH. Suppression of HIV-1 infection in primary CD4 T cells transduced with a self-inactivating lentiviral vector encoding a membrane expressed gp41-derived fusion inhibitor. **Clinical Immunology**. 115(1): 26-32, April 2005.
7. Blank C, Smith LA, Hammer DA, Fehrenbach M, Delisser HM, **Perez E**, Sullivan KE. Recurrent infections and immunological dysfunction in congenital disorder of glycosylation Ia (CDG Ia) **J Inherit Metab Dis**. 29 (4): 592-592 Aug 2006.

8. Onigbanjo M, Orange J, **Perez E**, and Sullivan K. Hypogammaglobulinemia in a pediatric tertiary care setting. **Clinical Immunology**. 125(1):52-9. October 2007. (Epub July 12, 2007).
9. Heltzer ML, Paessler M, Raffini L, Bunin N, and **Perez E**. Successful haploidentical bone marrow transplant in reticular dysgenesis: three year follow-up. **Journal of Allergy and Clinical Immunology**. 120(4):950-2. October 2007. (Epub Sep 12, 2007)
10. Suhoski M*, **Perez E***, Heltzer M, Laney A, Saitta S, Nachman S, Spinner N, June C, Orange J. Monosomy 1p36 associated with OX40 haploinsufficiency and immune deficiency. **Clinical Immunology**. 128(2):181-189. August 2008. (***authors contributed equally to this work**)
11. **Perez E**, Jouvenot Y, Wang J, Miller, JC, Kim K, Liu O, Wang N, Lee G, Bartesevic V, Lee Y, Guschin D, Rupniewski I, Waite A, Carpenito C, Carroll R, Orange J, Urnov F, Rebar E, Ando D, Gregory P, Riley J, Holmes M, and Carl H. June. Establishment of HIV-1 resistance in CD4 (+) T cells by genome editing using zinc-finger nucleases. **Nature Biotechnology**. (26)7: 808-816. June 2008.
12. Ho SK, **Perez E**, Rose SL, Lowe AC, Smith LE, Lawrence RM, Dunn BM, Ma C, Sleasman JW, Goodenow MM. Viral and immune responses to combination antiretroviral therapy are related to genetic determinants in human immunodeficiency virus type 1 (HIV-1) gag-pol and envV3. **AIDS**. 23(13):1631-1640. August 2009.
13. Orange JS, Glessner JT, Resnick E, Sullivan KE, Lucas M, Ferry B, Kim CE, Hou C, Wang F, Chiavacci R, Kugathasan S, Sleasman JW, Baldassano R, **Perez E**, Chapel H, Cunningham-Rundles C, Hakonarson H. Genome-wide association identifies diverse causes of common variable immunodeficiency. **J Allergy Clin Immunol**. 2011 Jun; 127(6):1360-1367.e6. Epub 2011 Apr 17.
14. DiNardo L, Brown V, **Perez E**, Bunin N, Sullivan, KE. A Single Center Study of Hematopoietic Stem Cell Transplantation for Primary Immune Deficiencies. **Pediatric Transplantation**, Nov 2011.
15. Pedroza L, Kumar V, Sanborn K, Niinikoski H, Nadeau K, de Moraes Vasconcelos D, **Perez E**, Jyonouchi S, Jyonouchi H, Ruuskanen O, Condino-Neto A, Orange J. AIRE participates in the dectin-1 induced inflammatory response and complexes with CARD9, syk, and dectin-1. accepted, **Journal of Allergy and Clinical Immunology**. August 2011.
16. Conley, ME, Dobbs, AK, Quintana, AM, Bosompem, A, Wang, YD, Coustan-Smith, E, Smith, A., **Perez, E**, Murray, P. Agammaglobulinemia and absent B lineage cells in a patient lacking the p85alpha subunit of PI3K. **Journal of Experimental Medicine**. February 2012.
17. Orange JS, Ballow M, Stiehm ER, Ballas ZK, Chinen J, De La Morena M, Kumararatne D, Harville TO, Hesterberg, P, Koleilat M, McGhee, S, **Perez, EE**, Raasch J, Scherzer R, Schroeder H, Seroogy C, Huissoon A, Sorensen RU, Katial R. Use and interpretation of diagnostic vaccination in primary immunodeficiency: A Working Group Report of the Basic and Clinical Immunology Interest Section of the American Academy of Allergy Asthma and Immunology. **J Allergy Clin Immunol**. 2012 Sep;130(3 Suppl):S1-24.
18. Maier DA, Brennan AL, Jiang S, Binder-Scholl GK, Lee G, Plesa G, Zheng Z, Cotte J, Carpenito C, Wood T, Spratt SK, Ando D, Gregory P, Holmes MC, **Perez EE**, Riley JL, Carroll RG, June CH, Levine BL. Efficient clinical scale gene modification via zinc finger nuclease-targeted disruption of the HIV co-receptor CCR5. **Hum Gene Ther**. 2013 Mar;24(3):245-58. doi: 10.1089/hum.2012.172. Epub 2013 Mar 6.
19. Shapiro RS, Boyle M, **Perez EE**. Local and national advocacy support. **J Clin Immunol**. 2012 Sep;32 Suppl 2:S423-6. Epub 2012 Jul 19.
20. Elizalde A, **Perez EE**, Sriaroon P, Nguyen D, Lockey RF, Dorsey MJ. Intensive educational course in allergy and immunology. **Allergy**. 2012 Sep;67(9):1085-6. doi: 10.1111/j.1398-9995.2012.02869.x.
21. Sriaroon P, Elizalde A, **Perez EE**, Leiding JW, Aldrovandi GM, Sleasman JW. Psychrobacter immobilis Septicemia in a Boy with X-linked Chronic Granulomatous Disease and Fulminant Hepatic Failure. **J Clin Immunol**. 2014 Jan; 34(1):39-41, epub 2013 Nov 12.
22. Glessner J, Keller M, Resnick E, **Perez E**, Chapel H, Lucas, M, Chiavacci R, Kim C, Sullivan K, Cunningham-Rundles C, Orange J, Hakonarson H. Burden of Copy Number Variation in Common Variable Immunodeficiency. **Clin Exp Immunol**. 2013 Dec 13. doi: 10.1111/cei.12255.
23. Kubiak C, Jyonouchi S, Kuo C, Garcia-Lloret M, Dorsey MJ, Sleasman J, Zbrozek AS, **Perez EE**. Fiscal implications of newborn screening in the diagnosis of severe combined immunodeficiency. **J Allergy Clin Immunol Pract**. 2014 Nov-Dec;2(6):697-702. doi: 10.1016/j.jaip.2014.05.013. Epub 2014 Aug 28.
24. Tillipman Ladinsky H, **Perez E**, Dorsey MJ. Chronic granulomatous disease associated colitis leading to profound zinc deficiency. **JACI: In Practice**. Volume 2, Issue 2, March-April 2014.
25. Lipshultz SE, Chandar JJ, Rusconi PG, Fornoni A, Abitbol CL, Burke GW 3rd, Zilleruelo GE, Pham SM, **Perez EE**, Karnik R, Hunter JA, Dauphin DD, Wilkinson JD. Issues in solid-organ transplantation in children: translational research from bench to bedside. **Clinics (Sao Paulo)**. 2014;69 Suppl 1:55-72.

26. Routes J, Abinun M, Al-Herz W, Bustamante J, Condino-Neto A, De La Morena MT, Etzioni A, Gambineri E, Haddad E, Kobrynsky L, Le Deist F, Nonoyama S, Oliveira JB, **Perez E**, Picard C, Rezaei N, Sleasman J, Sullivan K, Torgerson T. ICON: The Early Diagnosis of Congenital Immunodeficiencies. *J Clin Immunol*. Epub March 2014. 2014 May; 34(4):398-424.
27. Keller M, Glessner J, Resnick E, **Perez E**, Chapel H, Lucas M, Sullivan K, Cunningham-Rundles C, Orange J, Hakonarson H. Burden of Copy Number Variation in Common Variable Immunodeficiency. *Clinical and Experimental Immunology*. June 9 2014 DOI: 10.1111/cei.12255
28. Maggadottir SM, Li J, Glessner JT, Li YR, Wei Z, Chang X, Mentch FD, Thomas KA, Kim CE, Zhao Y, Hou C, Wang F, Jørgensen SF, **Perez EE**, Sullivan KE, Orange JS, Karlsen TH, Chapel H, Cunningham-Rundles C, Hakonarson H. Rare variants at 16p11.2 are associated with common variable immunodeficiency. *J Allergy Clin Immunol*. 2015 Feb 10. pii: S0091-6749(15)00021-4. doi: 10.1016/j.jaci.2014.12.1939. [Epub ahead of print]
29. **Perez EE**, et al. Use of intravenous immunoglobulin in human disease: A review of evidence by members of the Primary Immunodeficiency Committee of the American Academy of Allergy, Asthma and Immunology. In Press Dec 2016 (available on line, then in print Mar 2017).
30. **Perez EE**, Bonilla FA, Orange JS, Ballow M. Specific Antibody Deficiency: Controversies in Diagnosis and Management *Frontiers in Immunology* 2017 May 22. Vol 8. Article 586. doi: 10.3389/fimmu.2017.00586
31. McCormack RM, Szymanski EP, Hsu AP, et al. MPEG1/perforin-2 mutations in human pulmonary nontuberculous mycobacterial infections. *JCI Insight*. 2017;2(8):e89635. Published 2017 Apr 20. doi:10.1172/jci.insight.89635
32. **Perez E**. Immunoglobulin Use in immune deficiency and autoimmune disease states *Am J Manag Care* 25 (6 Suppl), S92-97, Jun 2019. PMID: 31318514
33. Bosticardo M, Yamazaki Y, Cowan J, Giardino G, Corsino C, Scalia G, Prencipe R, Ruffner M, Hill DA, Sakovich I, Yemialyanava I, Tam JS, Padem N, Elder ME, Sleasman JW, **Perez E**, Niebur H, Serogy CM, Sharapova S, Gebbia J, Kleiner GI, Peake J, Abbott JK, Gelfand EW, Crestani E, Biggs C, Butte MJ, Hartog N, Hayward A, Chen K, Heimall J, Seeborg F, Bartnikas LM, Cooper MA, Pignata C, Bhandoola A, Notarangelo LD Heterozygous FOXP1 Variants Cause Low TRECs and Severe T Cell Lymphopenia, Revealing a Crucial Role of FOXP1 in Supporting Early Thymopoiesis. *Am J Hum Genet*. 2019;105(3):549–561. doi:10.1016/j.ajhg.2019.07.014
34. Nicholas Brodzski, Ashley Frazer-Abel, Anete S. Grumach, Michael Kirschfink, Jiri Litzman, **Elena Perez**, Mikko R. J. Seppänen, Kathleen E. Sullivan & Stephen Jolles. European Society for Immunodeficiencies (ESID) and European Reference Network on Rare Primary Immunodeficiency, Autoinflammatory and Autoimmune Diseases (ERN RITA) Complement Guideline: Deficiencies, Diagnosis, and Management. (Received: 5 June 2019 /Accepted: 20 January 2020)
35. Perez EE, Ballow M. Diagnosis and Management of Specific Antibody Deficiency *Immun Allergy Clin North America* 2020 August;40(3):499-510.
36. Ballow M, Perez EE. Primary Immune Deficiencies: Update on an Evolving Clinical Discipline. Aug 2020. Doi 10.1016/j.ia.2020.05.001 Epub 2020 Jun 7.

RECENT ABSTRACTS

1. **E. Perez**, J. Riley, D. von Laer, C. June: HIV resistance in primary CD4 T cells engineered to express a gp-41 derived peptide. **Oral presentation** at the Fourth Annual FOCIS Meeting, Montreal, Canada 2004.
2. M. Heltzer, M. Paessler, N. Bunin, L. Raffini, **E. Perez**: Case report: reticular dysgenesis presenting with profound neutropenia. **Poster** at CIS Primary Immune Deficiency Disorders Consortium Conference, Boston, MA May 2005. (**Published article** in *Journal of Allergy and Clinical Immunology* October, 2007)
3. **E. Perez**, Y. Jouvenot, F. Urnov, M. Holmes, C. Beausejour, J. Rock, Y. Lee, J. Miller, D. Ando, P. Gregory, J. Riley, and C. June: Toward gene knock out therapy for HIV/AIDS. **Poster** at ICAAC Interscience Conference on Antimicrobial Agents and Chemotherapy 2005, Washington, D.C. 2005.
4. **E. Perez**, Y. Jouvenot, F. Urnov, M. Holmes, C. Beausejour, J. Rock, Y. Lee, J. Miller, D. Ando, P. Gregory, J. Riley, and C. June: Use of engineered zinc-finger-based endonucleases to create CCR5 targeted gene disruption in T Cells as potential therapy of HIV/AIDS. **Poster Presentation** at the 2005 12th Conference on Retroviruses and Opportunistic Infections, Boston, Massachusetts.
5. **E. Perez**, Y. Jouvenot, F. Urnov, M. Holmes, C. Beausejour, J. Rock, Y. Lee, J. Miller, D. Ando, P. Gregory, J. Riley and C. June: Engineered zinc-finger nucleases for targeted disruption of CCR5 gene. **Poster** at Chemokines and Chemokine Receptors Keystone Symposia, Snowbird, Utah January 2006.
6. **Y. Jouvenot, E Perez, F Urnov, J Miller, E Rebar, M Holmes, D Ando, J Riley, P Gregory, and C June**. **Toward gene knock-out therapy for AIDS/HIV: Targeted disruption of ccr5 using engineered zinc finger protein nucleases. Oral Presentation** at the 2006 13th Conference on Retroviruses and Opportunistic Infections, Denver, Colorado.

7. **E. Perez**, O. Liu, C. June: Engineered zinc finger nucleases for gene knock out therapy in cancer. **Poster** at the 9th Annual Meeting of the Regional Cancer Center Consortium for the Biological Therapy of Cancer, Pittsburgh, PA February 2006.
8. **E. Perez**, M. Suhoski, M. Heltzer, J. Orange: Monosomy 1p36 associated with immune deficiency and decreased expression of OX40. **Oral presentation** at the CIS Primary Immune Deficiency Disorders Consortium Conference, San Francisco 2006. (**Published article** in Clinical Immunology 2008)
9. **E. Perez**, Y. Jouvenot, F. Urnov, M. Holmes, C. Beausejour, J. Rock, Y. Lee, J. Miller, D. Ando, P. Gregory, J. Riley, and C. June: Towards gene knock out therapy for AIDS/HIV: targeted disruption of CCR5 using engineered zinc finger protein nucleases. **Poster** at the Annual ICAAC meeting, San Francisco 2006.
10. B. L. Levine, M. DeCaul, O. Liu, J. Wang, G. Lee, K. Kim, N. Wang, D. Ando, P. D. Gregory, J. L. Riley, M. C. Holmes, C.H. June, and **E. Perez**: Gene modification at clinical scale: engineering resistance to HIV Infection via targeted disruption of the HIV co-receptor CCR5 gene in CD4+ T cells using modified zinc finger protein nucleases. **Poster** at the International Society for Cellular Therapy meeting, 2007. Sydney, Australia.
11. **E. Perez**, J. Wang, O. Liu, Kenneth Kim, Nathaniel Wang, G. Lee, J. C. Miller, D. Guschin, V. Bartsevich, P. D. Gregory, J. L. Riley, M. C. Holmes and C.H. June. Targeted disruption of CCR5 using engineered zinc finger protein nucleases provides in vivo protection from HIV. **Oral presentation during plenary** at the American Society for Gene Therapy 10th Annual Meeting, Seattle. May 30 - June 3, 2007. **Recipient, 4 Top Abstracts Award.**
12. B.L. Levine, M. DeCaul, O. Liu, J. Wang, G. Lee, K. Kim, N. Wang, D. Ando, P.D. Gregory, J.L. Riley, M.C. Holmes, C.H. June, **E. Perez**. Gene modification at clinical scale: engineering resistance to HIV infection via targeted disruption of the HIV co-receptor CCR5 gene in CD4 T cells using zinc finger protein nucleases. **Poster** at the American Society for Gene Therapy, Boston 2008.
13. **E. Perez**, M. Dorsey, J. Sleasman, C. Walsh, B. Kirkpatrick, J. Romeo, R. Sanka. Elevated IL-8 levels in allergic airways inflammation is down regulated following aerosolized brevetoxin exposure. Poster at the American Academy of Allergy Asthma and Immunology annual meeting, New Orleans 2010.
14. M. Longley, A. Petrovic, **E. Perez**, J. Sleasman, M. Dorsey. The use of dihydrorhodamine testing to assess granulocyte function following hematopoietic stem cell transplantation for autosomal recessive chronic granulomatous disease. Florida Allergy Asthma and Immunology Society. June 2010.
15. L. Yin, L. Liu, Y. Cai, W. Hou, M. Wallet, B. Gardner, A. Lowe, Y. Sun, P. Sriaroon, **E. Perez**, C.A. Rodriguez, J.W. Sleasman and M.M. Goodenow. Mapping defects in IgM⁺ B cell repertoire in HIV-infected individuals by 454-pyrosequencing. AIDS Vaccine Conference, Georgia 2010.
16. D Nguyen, E Kellner, S Hudey, A Tyagi, MJ Dorsey, P Sriaroon, JW Sleasman, **EE Perez**. Elevation of Soluble CD14 Levels Support Chronic Innate Immune Activation in Subjects with CVID and SLE Compared to Healthy Subjects. Poster at the American Academy of Allergy Asthma and Immunology annual meeting, San Francisco 2011.
17. M M Longley, E Kellner, S Hudey, S Lukas, P Sriaroon, J W Sleasman, **EE Perez**, T Murphy, M J Dorsey Evidence of macrophage activation in Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections (PANDAs). Poster at the American Academy of Allergy Asthma and Immunology annual meeting, San Francisco 2011.
18. A. Elizalde, S. Hudey, M Dorsey, E. Perez, M. Goodenow, J Sleasman, P. Sriaroon. CD21-/low B cells are increased in both Common Variable Immunodeficiency and Specific Antibody Deficiency. Poster at the American Academy of Allergy Asthma and Immunology annual meeting, San Francisco 2011.
19. M. Dorsey, A Elizalde, E Perez, P Sriaroon, D Nguyen, R Lockey, J Sleasman. Effectiveness of an Educational Intensive Course on Allergy and Immunology Clinical and Diagnostic Procedures. Poster at the American Academy of Allergy Asthma and Immunology annual meeting, Orlando 2012
20. C Kubiak, J Sleasman, M Dorsey, E Perez. Financial Impact of Late Diagnosis of Severe Combined Immunodeficiency: Why it is fiscally sound for states to invest in the implementation of newborn screening for SCID. Oral abstract presented at the American Academy of Allergy Asthma and Immunology annual meeting, Orlando 2012.
21. Elena E. Perez, In utero hematopoietic stem cell transplant: A 17year follow up. Poster presented at the American Academy of Allergy Asthma and Immunology annual meeting, San Antonio 2013.
22. R McCormack, E. Szymanski, A. Hsu, K. Olivier, E Perez, E. Podack, S. M. Holland. Perforin-2 mutations in pulmonary nontuberculous mycobacterial infection, Oral abstract presented at the Clinical Immunology Society Meeting, Houston, 2015.
23. E. Perez, A. Koterba, M. Stein, B. Moskowitz, N. Rothschild. Modified Oral Rapid Drug Desensitization (ORDD) to Ibrutinib in a Patient with Stage IV Mantle Cell Lymphoma and Early Onset Grade 1 Hypersensitivity Reaction. Poster presented at American Academy of Allergy Asthma and Immunology annual meeting, Atlanta 2017.

BOOKS, BOOK CHAPTERS AND REVIEWS

1. Andrews T, and **Perez E**, "Inherited immune deficiencies," in Blueprints Pediatric Infectious Diseases, S. Shah, editor. Blackwell Publishing, 2005. p 170-177. (updated each edition)
2. **Perez E**, "Common variable immunodeficiency" in 5 Minute Pediatric Consult. W. Schwartz, et al. editors. Lippincott Williams & Wilkins 2006-present 3rd edition-7th edition. (updated each edition)
3. **Perez E**, "Wiskott Aldrich syndrome" in 5 Minute Pediatric Consult. W. Schwartz, et al, editors. Lippincott Williams & Wilkins 2006-present. 3rd edition -7th edition. (updated each edition)
4. Varela-Rohena A, Carpenito C, **Perez E**, et al. "Genetic Engineering of T cells for adoptive immunotherapy." Immunologic Research, 42 (1-3): 166-181 October 2008.
5. Routes J, Abinun M, Al-Herz W, Bustamante J, Condino-Neto A, DeLaMorena M, Etzioni A, Gambineri E, Haddad E, Kobrynski L, Le Deist F, Nonoyama S, Olivera J, **Perez E**, Picard C, Rezaei N, Sleasman J, Sullivan K, Torgerson T. ICON: the Early Diagnosis of Congenital Immunodeficiencies. Journal of Allergy and Clinical Immunology (submitted Aug 2013)
6. **Perez, E**. Chapter 59. Resources for clinicians. Immunologic Disorders in Infants and Children. Ed. Stiehm, Ochs, and Winkelstein, 6th edition.
7. Perez, E. "Clinical Presentation of Immunodeficiency, Primary Immunodeficiency" doi10.1007/978-1-4614-9209-2_69-1 Chapter in Encyclopedia of Medical Immunology. Sep 2018 (Springerlink).][Editors: Ian Mackay, Noel R. Rose, Jordan Scott Orange, Francisco A. Bonilla. Copyright 2019. Springer Verlag NY ISBN: 978-1-4614-8679-4]
8. **Perez, E**. "Evaluation of Suspected Immunodeficiency, Overview" doi10.1007/978-1-4614-9209-2_71-1 Chapter in Encyclopedia of Medical Immunology. Mar 2019 (Springerlink)[Editors: Ian Mackay, Noel R. Rose, Jordan Scott Orange, Francisco A. Bonilla. Copyright 2019. Springer Verlag NY ISBN: 978-1-4614-8679-4]
9. **Perez, E**. "Management of Immunodeficiency, IgG Replacement (SC)" doi10.1007/978-1-4614-9209-2_81-1 Chapter in Encyclopedia of Medical Immunology. Mar 2019 (Springerlink).[Editors: Ian Mackay, Noel R. Rose, Jordan Scott Orange, Francisco A. Bonilla. Copyright 2019. Springer Verlag NY ISBN: 978-1-4614-8679-4]
10. **Perez, E**. "Management of Immunodeficiency, IgG Replacement (IV)" doi10.1007/978-1-4614-9209-2_80-1 Chapter in Encyclopedia of Medical Immunology. Mar 2019 (Springerlink).][Editors: Ian Mackay, Noel R. Rose, Jordan Scott Orange, Francisco A. Bonilla. Copyright 2019. Springer Verlag NY ISBN: 978-1-4614-8679-4]

MANUSCRIPTS IN PREPARATION

"Future of therapy for Inborn Errors of Immunity" for Clinical Reviews in Allergy and Immunology. (pending)

INVITED PRESENTATIONS

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| 2004 | Lecture , Future of treatment for primary Immunodeficiencies, Children's Hospital of Philadelphia, Primary Immunodeficiency: A Window of Opportunity for the Primary Care Provider, Philadelphia, Pennsylvania (CME Course) . |
| Mar 2005 | Lecture , "Gene Therapy: The future of treatment for primary immunodeficiencies" Thomas Jefferson University, Allergy/Immunology Rounds, Philadelphia, Pennsylvania |
| Feb 2006 | Lecture , Towards Gene Knock Out Therapy for AIDS/HIV: Targeted Disruption of CCR5 Using Engineered Zinc Finger Protein Nucleases, Conference on Retroviruses and Opportunistic Infections, Denver, Colorado |
| May 2007 | Lecture , European Spring School in Regenerative Medicine. "Zinc finger technology for the treatment of HIV" Oslo, Norway |
| Jun 2007 | Lecture , Genome editing using zinc finger nucleases: establishment of HIV resistance in primary CD4 T cells. University of South Florida, All Children's Hospital, St. Petersburg, Florida . |
| Mar 2008 | Lecture , "Basic immunologic insights from HIV: what's new in 2008," AAAAI Annual Meeting, Philadelphia, Pennsylvania |
| Mar 2008 | Moderator , "Immunodeficiency and Host Defense", AAAAI Annual Meeting, Philadelphia |
| Mar 2008 | Panelist , "The patient with Recurrent Infections or PID", AAAAI Annual Meeting, Philadelphia |
| Apr 2008 | Lecture , Center for Information and Study on Clinical Research Participation (CISCRP), 2nd Annual Philadelphia Aware for All Clinical Research Education Day, Philadelphia, Pennsylvania |
| Mar 2009 | Lecture , "Gene therapy for immunodeficiency diseases," AAAAI Annual Meeting, Washington, DC |
| Sep 2009 | Lecture , "Approach to food allergy in children," All Children's Hospital Practical Pediatrics (CME Program), Pasco County, Florida |
| Nov 2009 | Lecture , St. Jude Lunch and Learn HIV session Teleconference for USF and St. Jude Hospital, "ZFN technology for treatment of HIV" St. Petersburg, Florida (teleconferenced to Tennessee) . |

Jan 2010 **Lecturer**, “Laboratory testing and diagnosis of primary immunodeficiency disorders,” Immune Deficiency Foundation, Miami Children’s Hospital, **Miami, Florida**

Feb 2010 **Lecturer**, “Immunoglobulin supplementation: IVIG and SCIG.” AAAAI Annual Meeting, **New Orleans, Louisiana**

Feb 2010 **Lecturer**, “T cell and combined immunodeficiency,” University of South Florida, Allergy and Immunology Fellowship Program Lecture Series. **St. Petersburg, Florida**

May 2010 **Lecturer**, “Toolbox for the allergy and immunology program: how do you teach primary immunodeficiency?” Clinical Immunology Society First North American Primary Immune deficiency National Conference. **Philadelphia, Pennsylvania**

Sep 2010 **Pediatric Grand Rounds, University of South Florida, Tampa General Hospital**, 22q11.2 deletion syndrome: “DiGeorge Syndrome” Revisited, Tampa

Oct 2010 **Pediatric Grand Rounds, All Children’s Hospital**, 22q11.2 deletion syndrome: “DiGeorge Syndrome” Revisited, St. Petersburg

Mar 2011 **Lecturer**, “Clinical Presentation of T and B cell Immunodeficiency Diseases” AAAAI Annual Meeting, San Francisco

Mar 2011 **Lecturer**, “IVIG and SCIG Therapy for Primary Immunodeficiency Diseases” AAAAI Annual Meeting, San Francisco

Apr 2011 **Lecturer**, “General Care for Persons with Primary Immunodeficiency Disease.” Immune Deficiency Foundation, Patient Education Meeting, Tampa, Florida.

Aug 2011 **Lecturer**, Zinc Finger Nuclease Technology for Treatment of HIV-1 and New Directions for Research in Primary Immune Disease. Clinical Research Meeting, University of Miami. Miami, Florida

Dec 2011 **Lecturer**. Treatment Options for Primary Immunodeficiency Diseases. World Allergy Organization. Cancun, Mexico.

Dec 2011 **Lecturer**. Primary Immunodeficiency Diseases of the Innate Immune System. World Allergy Organization. Cancun, Mexico.

Dec 2011 **Lecturer**. Diagnosis and Management of B and T cell Immunodeficiency Diseases. World Allergy Organization. Cancun, Mexico.

Jan 2012 Testimony on Newborn Screening for Severe Combined Immunodeficiency at the Genetics and Newborn Screening Program Advisory Council, Jacksonville, FL 32202

Mar 2012 **Discussion Leader**, Advances in the Diagnosis and Management of Chronic Granulomatous Disease, AAAAI Annual Meeting, Orlando

Aug 2012 **Pediatric Grand Rounds**, University of Miami, “Update on Newborn Screening for Severe Combined Immune Deficiency (SCID), *Coming soon to Florida*”, Miami

Sep 2012 **Pediatric Noon Conference Series**, University of Miami, “Anaphylaxis: Clinical Review and Management”, Miami

Sep 2012 **Lecturer**, University of Miami Pediatric Clinical Research Forum, “An Overview: Research Topics in Immunology and Primary Immunodeficiency Diseases”, Miami

Oct 2012 **Pediatric Noon Conference Series**, University of Miami, “Toolbox for the Diagnosis of Primary Immunodeficiency Diseases”, Miami

Mar 2013 **Speaker**, “Everything you should know about IVIG and SCIG”, AAAAI Annual Meeting, San Antonio.

Apr 2013 **Speaker**, “Tales from the Listserve: A baby with IPEX and Ventilator Dependence” Clinical Immunology Society Meeting, Miami

Apr 2013 **Speaker**, University of Miami Pediatric Clinical Research Forum, “Use of multi-viral specific T cell therapy in the setting of bone marrow transplantation” Miami

Nov 2013 **Speaker**, “Approach to Treatment with Replacement Ig Therapy”, ACAAI Annual Meeting, Baltimore.

Nov 2013 **Speaker**, “Managing Recurrent Infections in Primary Immunodeficiency”, Immune Deficiency Foundation Patient Education Meeting, Fort Lauderdale

Mar 2014 **Speaker**, “When Should Bone Marrow Transplantation be Considered in Primary Immunodeficiency?” AAAAI Annual Meeting, San Diego

Apr 2014 **Speaker**, “Modelling Immunoglobulin Prioritization—A pathway to consensus” consultancy to CSL Behring, Interlaken, Switzerland

May 2014 **Speaker**, “Diagnostic and Therapeutic Approaches to Primary Immunodeficiency Diseases” Eastern Allergy Conference, Palm Beach Florida

May 2014 **Speaker**, “IVIG for Neuroimmune Disorders” Pediatrics & Developmental Neuroscience Branch National Institute of Mental Health

Nov 2014 **Speaker**, “Overview of Treatment Options for Primary Immunodeficiencies” Immune Deficiency Foundation Patient Education meeting, Fort Lauderdale

Mar 2015 **Speaker**, Pediatric Grand Rounds. “Food Allergies: an update and recent landmark studies” Miami

Feb 2015 **Speaker**, “Evaluating and Addressing Knowledge Gaps in PID” consultancy talk to CSL Behring, Atlanta

Feb 2015 **Participant**, “Global Immunodeficiency Expert Advisory Panel (ILEAP)” consultancy to Baxter, Houston

Mar 2016	Speaker , "Eczema as a sign of Immunodeficiency." AAAAI Los Angeles, CA
Mar 2016	Speaker , "Newborn Screening for SCID: What every Clinician should know." AAAAI, Los Angeles, CA
Mar 2016	Moderator , "Common Variable Immunodeficiency (CVID) from the Bench to the Bedside." AAAAI, Los Angeles, CA
Apr 2016	Panel Discussion : "Interpreting Vaccine Antibody Responses in PID: Update on Diagnostic Advances in Primary Immunodeficiency." Clinical Immunology Society
Jun 2016	Speaker , "Evaluation of Primary Immunodeficiency." Eastern Allergy Conference, Palm Beach, FL
Jul 2016	Speaker , "Evaluation of Recurrent Respiratory Infections from the Immunology Perspective." FAAIS, Orlando, FL
Jul 2016	Speaker , "Approaches to Diagnosis and Management of Specific Antibody Deficiency." FAAIS, Orlando, FL
Aug 2016	Speaker , "The Diagnostic Evaluation of Primary Immunodeficiency." Alabama Society of Allergy and Immunology 2016 37 th Annual Review Course. Destin, AL
Aug 2016	Speaker , "The Use and Interpretation of Diagnostic Vaccines for Immunology." Alabama Society of Allergy and Immunology 2016 37 th Annual Review Course. Destin, AL
Sep 2016	Speaker , "Vaccines: Understanding the Risks and Benefits." Immune Deficiency Foundation Education Meeting. Fort Lauderdale, FL
Nov 2016	Speaker , "Immunoglobulin Replacement: When, By what route, and how much?" ACAAI National Meeting, San Francisco, CA
Nov 2016	Speaker , "Optimizing Patient Care with Hizentra." Product theater, ACAAI National Meeting, San Francisco, CA
Jan 2017	Speaker , "Immunoglobulin Replacement Therapy: Overview and Treatment Recommendations." Allergy-Immunology Grand Rounds, Winthrop University Hospital, New York
Mar 2017	Speaker , "New Developments for Individualizing IG Treatment in Patients With Primary Immunodeficiency Diseases (PID)" Symposium presented at AAAAI National Meeting, Atlanta, GA
Oct 2017	Speaker , "Clinical Applications and Mechanisms of Action of Immunoglobulin" 5/ 6th Annual IgNS National Conference, Las Vegas, Nevada
Oct 2017	Speaker , "Management of Bronchiectasis in PID" 5/ 6th Annual IgNS National Conference, Las Vegas, Nevada
Dec 2017	Speaker , "Practical Management of the PID/SID patient and Update on Supportive Treatment in PID and SID", both talks given at the Octapharma Academy, Cancun Mexico
Jan 2018	Speaker , "Non-infectious complications of CVID." Immune Deficiency Foundation Education Meeting. Fort Lauderdale, FL.
Mar 2018	Speaker , "Perspectives on Primary Immunodeficiency (PI): Shared Decision-Making for Personalized PI Management." Symposium at AAAAI. Hosted by Shire.
Mar 2018	Speaker , "Defining Success for Patients: Individualizing Treatment for Primary Immunodeficiency" Symposium at AAAAI. Hosted by CSL Behring
Mar 2018	Moderator , "Prescribing IgG for Immunodeficiency" Seminar Session 3004. AAAAI National Meeting, Orlando
Mar 2018	Moderator , "BCI: Mechanisms Underlying Incomplete Penetrance and Variable Presentation of Primary Immunodeficiency Disorders." Session 3702. AAAAI National Meeting, Orlando, FL
Mar 2018	Moderator , "Topics in Common Variable Immunodeficiency" Session 2602. AAAAI National Meeting, Orlando, FL
Nov 2019	Speaker , Session 7007: "When does the Infection History Support the Diagnosis of an Immune Deficiency?" Houston TX ACAAI
Nov 2019	Speaker , Session 7029: "Best Practices in Patient Care (for patients with Common Variable Immune Deficiency)" Houston TX ACAAI
Mar 2021	Moderator , Personalized Medicine: How close are we to harnessing the power of T cells? AAAAI Virtual Annual meeting

Consultant/ Speaker Bureau

2017-present	Consultant and Speaker for CSL Behring
2018-present	Consultant and Speaker for Genentech/Novartis
2020	Consultant and Speaker Takeda
2021	Consultant and speaker Grifols

SERVICE

University Committees

1991-1993	Student Representative , Medical Student Admissions Committee, University of Florida College of Medicine
1992-1995	Class Representative , Curriculum Committee, University of Florida College of Medicine
1993-1994	Student Representative , LCME Re-accreditation Committee, University of Florida College of Medicine

1996-1997 **Student Representative**, Medical Student Admissions Committee, University of Florida College of Medicine
 2001-2003 **Member**, Intern Selection Committee Children's Hospital of Philadelphia
 2001-2003 **Fellow Representative**, Graduate Medical Education Committee, Children's Hospital of Philadelphia
 2010 **Member**, Infection Control Committee, All Children's Hospital
 2010 **Member**, Fellow Selection Committee, University of South Florida Allergy/Immunology Fellowship Program, St. Petersburg
 2010 **Member**, Faculty Research and Clinical Retreats, University of South Florida Allergy/Immunology Fellowship Programs
 2010 **Organizer**, First Annual "Boot camp" Orientation for University of South Florida Fellowship Programs in Allergy and Immunology
 2012- **Member**, Jackson Memorial Hospital, Transfusion Committee
 2012- **Member**, University of Miami, Pediatric Executive Committee
 2014 **Organizer**, Asthma Quality Improvement Project Holtz/UM
 2014-2015 Identified as University of Miami "core" teaching faculty by the Department of Pediatrics

Extramural Committees and Appointments

1992 **Co-chair**, Fifth Annual Health Care Issues Conference, University of Florida College of Medicine
 2005-2010 **Chair**, Committee for Development of Primary Immunodeficiency Educational Slide Set, AAAAI
 2006 **Moderator**, Primary Immune Deficiency Workshop, AAAAI Annual Meeting, Miami, Florida
 2007-2008 **Appointed Vice Chair**, Primary Immunodeficiency Committee, AAAAI
 2007-2009 **Member**, Clinical Immunology Society Finance Committee
 2008 **Abstract Reviewer** for the AAAAI Annual Meeting, Philadelphia
 2008-present Immune Deficiency Foundation periodic yearly community education talks
 2009 **Abstract Reviewer** for the AAAAI Annual Meeting, Washington, DC
 2009 **Moderator**, "Gene Therapy for Immunodeficiency," AAAAI Annual Meeting, Washington, DC
 2009 **Moderator**, Oral Abstract Session, "Primary Immunodeficiency," Washington, DC
 2009-2011 **Appointed Chair**, Primary Immunodeficiency Committee, AAAAI
 2010 **Abstract Reviewer** for the AAAAI Annual Meeting, New Orleans
 2011- **Member**, AAAAI Website Review Panel
 2011 **Reviewer**, Up-to-Date
 2011 **Reviewer**, Frontiers in Immunology
 2011 **Abstract Reviewer**, for the AAAAI Annual Meeting, San Francisco
 2012 **Abstract Reviewer**, for the AAAAI Annual Meeting, Orlando
 2012, 2013 Nomination for Directorship of the American Board of Allergy Asthma and Immunology
 2012 **Secretary**, Basic and Clinical Immunology Interest Section, AAAAI
 2013 **Abstract Reviewer**, for AAAAI Annual Meeting, San Antonio
 2012-present **Member**, Annual Meeting Program Committee, AAAAI
 2014 **Abstract Reviewer**, for AAAAI Annual Meeting, San Diego
 2014 **Moderator**, "Primary Immunodeficiency at the Molecular Level: The Wave of the Future" AAAAI Annual Meeting, San Diego
 2014 **Moderator**, "Use of Gamma Globulin in Clinical Practice: Indications, Challenges, Adverse Reactions and Monitoring" AAAAI Annual Meeting, San Diego
 2014 **Moderator**, Clinical Immunology Society Meeting, "Hot new Gene Defects associated with Primary Immunodeficiency", Baltimore
 2014-2016 **Vice Chair**, BCI interest section AAAAI
 2014 Appointed to the State of Florida Newborn Screening Advisory Council
 2015 **Abstract Reviewer and Annual Meeting Program Committee**, AAAAI Annual Meeting, Houston
 2015 Appointed to the Clinical Immunology Society Council
 2015 **Abstract Reviewer and Annual Meeting Program Committee**, AAAAI Annual Meeting, Los Angeles
 2016 **Abstract Reviewer and Annual Meeting Program Committee**, AAAAI Annual Meeting, Atlanta
 2017 **Abstract Reviewer and Annual Meeting Program Committee**, AAAAI Annual Meeting, Orlando
 2017-2019 **Chair**, BCI Interest Section, AAAAI
 2019-2023 **Member**, Blood Products Advisory Committee, FDA
 2023 **Member**, Immune Deficiency Foundation Medical Advisory Committee

CLINICAL RESEARCH EXPERIENCE:

- **Sub-Investigator:** “A 52-Week, Randomised, Double-Blind, Double Dummy, Parallel Group, Multi-Centre, Non-Inferiority Study Assessing Exacerbation Rate, Additional Measures Of Asthma Control and Safety in adult and Adolescent Severe Asthmatic Participants with an Eosinophilic Phenotype Treated with GSK3511294 Compared with Mepolizumab Or Benralizumab” 2021
- **Sub-Investigator:** A Phase 2, Multicenter, Randomized, Double Blinded, Placebo-Controlled, Parallel-Group Study to Assess the Safety, Efficacy and Pharmacodynamics of TEV-53275 Administered Subcutaneously in Adult Patients with Persistent Eosinophilic Asthma” 2021
- **Sub-Investigator:** “A Multicenter, Single-Sequence, Open-label Study to Evaluate IGSC 20% Biweekly Dosing in Treatment-Experienced Subjects and Loading/Maintenance Dosing in Treatment-Naïve Subjects with Primary Immunodeficiency” 2020
- **Sub-Investigator:** “A Phase IV, Multicenter, Open-label Study to Evaluate the Safety and Pharmacokinetics of BIVIGAM® in Primary Immune Deficiency Disorders in Subjects Aged 2 to 16” 2020
- **Principal Investigator:** “A Phase 3, Multicenter, Open-label, Single-sequence, Cross-over, Bioequivalence Study to Evaluate the Pharmacokinetics, Safety, and Tolerability of IVIG-PEG compared to Gamunex-C in Subjects with Primary Humoral Immunodeficiency” 2020
- **Principal Investigator:** “Phase 2 Study of AR201 Oral immunotherapy for Desensitization in Children, Adolescents, and Young Adults With Hen Egg Allergy” 2020—*Never started, closed due to pandemic.*
- **Principal Investigator,** “A one-year placebo-controlled phase III trial evaluating the efficacy and safety of the house dust mite (HDM) SLIT-tablet in children (5-11 years of age) with HDM allergic rhinitis/rhinoconjunctivitis with or without asthma” 2019
- **Sub-Investigator,** “A Clinical Phase III Study to Monitor the Safety, Tolerability, and Efficacy of Subcutaneous Human Immunoglobulin (Cutaquig) Administered at Modified Dosing Regimens in Patients with Primary Immunodeficiency Diseases” 2019
- **Principal Investigator,** “A Phase III, Open-label, Prospective, Multicenter Study to Assess Efficacy, Safety and Pharmacokinetics of Kedrion Intravenous Immunoglobulin (IVIg) 10% in Primary Immunodeficiency Disease (PID) Patients” 2019
- **Sub-Investigator,** “Comparison of Two Infusion Devices with Respect to Pharmacokinetics, Safety and Tolerability of Hizentra: An Investigational Wearable Infusor and the Crono S-PID-50 Infusion Pump” 2018
- **Principal Investigator,** “An Open-Label, Single-Arm, Historically Controlled, Prospective, Multicenter, Phase III Study to Evaluate the Safety, Efficacy and Pharmacokinetics of Immune Globulin Intravenous (Human) IVIG-SN in Pediatric Subjects with Primary Humoral Immunodeficiency” 2018 (*closed prior to start*)
- **Principal Investigator,** “A Multicenter, Open-Label, Long-Term Safety Study of AR101 Characterized Oral Desensitization Immunotherapy in Subjects Who Participated in a Prior AR101 Study” Aimmune Therapeutics, Inc. Protocol ARC008, 2018
- **Principal Investigator,** “Real-World AR101 Market-Supporting Experience Study in Peanut-Allergic Children, Active Treatment Arm Open-Label Extension Study (RAMSES OLE)” Aimmune Therapeutics, Inc. Protocol ARC011, 2018
- **Principal Investigator,** “Real-World AR101 Market-Supporting Experience Study in Peanut-Allergic Children Ages 4 to 17 Years (RAMSES)” Aimmune Therapeutics, Inc. protocol ARC007 2017
- **Sub-Investigator→PI,** “Open-Label, Single-Arm, Historically Controlled, Prospective, Multicenter Phase III Study to Evaluate the Safety, Efficacy and Pharmacokinetics of Immune Globulin Intravenous (Human) GC5107 in Subjects with Primary Humoral Immunodeficiency” 2017
- **Sub-Investigator,** “Postmarketing Requirement (PMR) Non-Interventional 2-Armed Study to Evaluate the Safety of Octagam Immune Globulin Intravenous (Human) 5% Liquid Preparation, with a Special Emphasis on Monitoring, Analysis and Reporting of Thromboembolic Events (TEEs)” 2017
- **Sub-Investigator,** “Prospective, Open Label, Multicenter Study of the Efficacy, Safety, Tolerability, and Pharmacokinetics of Therapure PlasmaCap IG in Adults and Children with Primary Immune Deficiency Diseases” 2017
- **Sub-Investigator,** “An open-label, multi-center study to evaluate the safety and pharmacokinetics of IGSC 20% administered for 6 months in subjects with primary immunodeficiency” 2016
- **Sub-Investigator→PI,** “A Phase 3, Multicenter, Open-Label Study of the Safety, Tolerability, Efficacy, and Pharmacokinetics of ProMetic BioTherapeutics Immune Globulin Intravenous (Human) 10% in Adults and Children with Primary Immunodeficiency Diseases” 2016
- **Sub-Investigator,** “A Phase III, Multicenter, Open-Label Study to Evaluate the Pharmacokinetics and Safety of Subgam VF in Primary Immunodeficiency Disease (PID)” 2016
- **Sub-Investigator,** “A phase III Open-Label, Prospective, Multi-Center Study of the Efficacy, Tolerability, Safety, and Pharmacokinetics of Immune Globulin, Subcutaneous (Human) IgPro 20 in Subjects with Primary Immunodeficiency (PID)” Protocol # ZLB04_009CR, in conjunction with ZLB Behring 2006 (while at CHOP in Philadelphia)

