Ph (w): 720-777-0676

Email: vijaya.knight@childrenscolorado.org

### **CURRICULUM VITAE**

#### **PERSONAL HISTORY:**

#### **Current Position:**

Director, Diagnostic and Translational Immunology

Children's Hospital Colorado, Denver, Colorado 2018 (June) - current

Visiting Associate Professor, Dept. of Pediatrics

University of Colorado School of Medicine 2018 (June) – January 2019

Associate Professor, Dept. of Pediatrics

Associate Professor, Dept. of Pediatrics 2019 (January) - current

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**EDUCATION:** 

M.B.B.S (U.S. MD Equiv)

Mysore Medical College, Mysore University, India. 1986 – 1991

Intern (internal medicine, surgery, obstetrics and gynaecology)

Bowring and Lady Curzon Hospital, Bangalore, India 1991-1992

Resident (Medical Microbiology and Immunology) 1993-1996

National Institute of Mental Health and Neurosciences, Bangalore, India Focus: Neurological infections with an emphasis on mycobacterial disease

Ph.D (Immunology)

Immunology, Dept. of Medicine, Melbourne University, Australia. 1996 – 2000

Mentor: Dr. Christina Cheers

Focus: Mycobacterial proteins and peptides in vaccine design

Postdoctoral Training 2000 – 2003

University of California, San Francisco

Post-doctoral researcher, Division of Infectious Disease

Mentor: Dr. Joel D. Ernst

Focus: The effect of intracellular infections such as M. tuberculosis on inhibition of innate

and adaptive immunological pathways.

Postdoctoral Fellowship 2003-2006

University of California, San Francisco JDRF Research fellow, Dept. of Pathology

Mentor: Dr. Abul K. Abbas

Focus: CTLA-4 and T cell regulation in autoimmune disease models.

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### PREVIOUS ACADEMIC APPOINTMENTS:

National Jewish Health

Assistant Professor, Division of Allergy & Immunology, Department of Medicine

2009-2010

Ph (w): 720-777-0676

Email: vijaya.knight@childrenscolorado.org

Assistant Professor, Division of Pathology, Department of Medicine	2010-2016
Associate Professor, Division of Pathology, Department of Medicine	2016-2018
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PREVIOUS PROFESSIONAL POSITIONS:	
Medimmune Vaccines, Mountain View, CA	2006-2008
Scientist II – translational biology	
Alanes and the Pale Handida	
National Jewish Health	
Assistant Director, Advanced Diagnostic Immunology Laboratory	2008-2010
Nietienel Inwisk Health	
National Jewish Health	
Director, Advanced Diagnostic Immunology Laboratory	2010-2018
Interim Director, Complement Laboratory	2016 -2018(June)
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HONORS AND AWARDS:	
Melbourne University Postgraduate Scholarship	1996-1999
Melbourne University Travel Award	1999
The Juvenile Diabetes Foundation post-doctoral fellowship	2003-2005
Faculty Ambassador (Faculty Awards, National Jewish Health)	2015
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# **MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:**

The Association of Medical Laboratory Immunologists (AMLI)

Clinical Immunology Society (CIS)

Colorado Asthma Allergy Society (CAAS)

International Clinical Cytometry Society (ICCS)

Diagnostic Immunology and Flow Cytometry Committee (sub-committee of College of American Pathologists) (DIFCC)

Clinical and Laboratory Standards Institute (CLSI) (Document Development Committee on Newborn Screening for Severe Combined Immunodeficiency and Other Related Severe

#### **MAJOR COMMITTEE AND SERVICE RESPONSIBILITIES:**

**CURRENT-HOSPITAL** 

- 1. Administration of the diagnostic immunology laboratory including ensuring satisfactory operations, quality of test results and development of new diagnostic tests to serve the clinical departments at Children's Hospital, Colorado.
- 2. Collaborate with colleagues at CHCO and UCD and industry to grow diagnostic testing at CHCO.

### PREVIOUS-HOSPITAL

- 1. Administration of the diagnostic immunology laboratory including ensuring satisfactory operations, quality of test results and development of new diagnostic tests to serve the clinical departments at National Jewish Health (NJH).
- 2. Chair: Radiation safety committee (2017-2018)

Ph (w): 720-777-0676

Email: vijaya.knight@childrenscolorado.org

- 3. Invited talks to increase awareness of the diagnostic immunology and beryllium laboratories at NJH: Chapeau Days introduction to diagnostic immunology and beryllium laboratories and the summer high school teachers' program introduction to careers in clinical laboratories and industry.
- 4. Professional education seminars: "Orthopedic Joint Failure: What is the role of Metal or Cement Allergy and How to Determine the Diagnosis (2011)" and "Pilocarpine Iontophoresis (2013)"
- 5. Education activities at NJH Advanced Diagnostic Laboratories: Lunch n' Learn seminar series towards continuing education for laboratory staff.

### UNIVERSITY

- 1. Collaboration with faculty colleagues from various clinical and basic science departments.
- Teaching activities: Allergy and Immunology fellows at CHCO, immunology graduate students (course
   IMMU-7603), Allergy & Immunology 1-1 teaching sessions for fellows (adult and pediatric
  programs, NJH), pathology multi-site lectures on immune deficiency (University of Colorado SOM),
  hematology-oncology fellows and pediatrics residents 1-1 teaching sessions (Colorado Children's
  Hospital)

### **NATIONAL**

- 1. AMLI (Assoc. of Medical Laboratory Immunologists): Plenary session chair, member of annual meeting planning committee, Treasurer (2012-2015), member of the ABMLI examination validation and development committees (2013-2015), Vice President (2015-2017), President (2017-2019).
- 2. CIS (Clinical Immunology Society) and AMLI: Planning committee member- "School of Diagnostic Assessment of Immune Phenotyping and Function in PIDs" 2014 and 2016 pre-conference course; planning for 2018 pre-conference update in diagnostic methods for immune deficiency.
- 3. CIS DLI (Diagnostic Laboratory Immunology) committee member 2015-2018; Chair 2018-2020.
- 4. AMLI and AACC (American Assoc. for Clinical Chemistry): 'Basic Concepts of Clinical Applications of Flow Cytometry Certificate Program' Faculty Chair
- 5. CAP (College of American Pathologists) team inspector for immunology and flow cytometry Memorial, CO-2013, Scripps, CA -2012, McKee, CO-2011
- 6. ASCP (American Society for Clinical Pathology): Section editor (immunology) for ASCP LabQ case studies for laboratory professionals towards continuing education. (2016-present)
- 7. CAP-DIFCC (College of American Pathologists Diagnostic Immunology and Flow Cytometry Committee): Member. Initiated evaluation of proficiency testing program for immunological assays for the evaluation of immune deficiency.
- 8. International Clinical Cytometry Society. Member- Quality and Standards committee. Currently initiated collaboration among ICCS, CIS and AMLI members for development of validation guidelines for esoteric immunology based assays.
- 9. Clinical Cytometry Education Network (CCEN). Member of the E-learning committee.
- 10. Clinical and Laboratory Standards Institute: Member: Document Development Committee on Newborn Screening for Severe Combined Immunodeficiency and Other Related Severe (2019-)

## **COMMUNITY ACTIVITIES**

1. Member – Swami Vivekananda Youth Movement (SVYM)

Ph (w): 720-777-0676

Email: vijaya.knight@childrenscolorado.org

SVYM is an organization engaged in building a new civil society in India through its grassroots to policy level action in Health, Education, Community Development & Training sectors.

- 2. Judge Denver Public Schools, science fair middle and high schools: 2014
- 3. Judge First Lego League (regional): 2014-2015
- 4. Regis University: Externship program for students in the Master's Biomedical Sciences Program (2012- 2016).
- 5. Short talks and practical demonstration at Indian Ridge Elementary School (Cherry Creek District) and Ricks Center for gifted kids (Denver University) describing the basics of immune responses and their role in allergy and vaccination (2014-current).

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#### **BOARD CERTIFICATION:**

(D)ABMLI – Board certification in Medical Laboratory Immunology 2012-current

Board certified 2012 Recertification 2015 Recertification 2018

## **INVENTIONS, INTELLECTUAL PROPERTY AND PATENTS:**

Pub. No.: US 2017/0102395 A1 Pub. Date: Apr. 13, 2017

Methods for Diagnosing and Treating Subjects for Pulmonary Exacerbations.

Inventors: Milene Saavedra and Vijaya Knight

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### **REVIEWER AND REFEREE WORK:**

Reviewer: Journal of Allergy and Clinical Immunology since 2009. Board of JACI reviewers - 2016-2019.

Ad hoc Reviewer:
Human Immunology
Clinical and Molecular Allergy
Clinical and Vaccine Immunology
Journal of Clinical Immunology
Frontiers in immunology

Lab Medicine

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### INVITED LECTURES, PRESENTATIONS AND SYMPOSIUM ORGANIZATION ACTIVITIES:

- 1. 2004. Diabetes Center Seminar series. University of California, San Francisco
- 2. 2004. Symposium talk "Manipulating the interface between infection and immunity". University of Melbourne, Melbourne, Australia
- 3. 2004. Invited talk Immunology Seminar series. Center for Immunology and Cancer Research. University of Queensland, Brisbane, Australia
- 4. 2004. Invited talk Division of Immunology and Genetics Seminar Series. Dept. of Immunogenomics. The John Curtin School of Medical Research, Canberra, Australia
- 5. 2009. Invited talk "Translational research in Academia and Industry" Biomedical Engineering seminars. School of Biomedical Engineering, Colorado State University, Fort Collins

Ph (w): 720-777-0676

Email: vijaya.knight@childrenscolorado.org

- 6. 2009. Invited Talk. "Analysis of Protein Phosphorylation and Cell Signaling events by Flow Cytometry: applications" Front Range Flow cytometry users group.
- 7. 2009. Symposium Talk. "Analysis of Protein Phosphorylation and Cell Signaling events by Flow Cytometry: Clinical applications." 21st Annual AMLI meeting.
- 8. 2010. Invited Talk "Utility of Metal Lymphocyte Proliferation Testing in Implant Failure Diagnosis": Dept. of Orthopedics, PSL, Denver
- 2011. Plenary session chair: 25th Annual AMLI meeting. "Hot topics in Immunology"
- 10. 2011. Anti-interferon gamma antibodies in NTM: case presentation. 23rd Annual AMLI meeting
- 11. 2012. Plenary session chair, 26th Annual AMLI meeting. "Hot Topics in Immunology"
- 12. 2012. Invited talk. Ricks Center for Gifted Children and the University of Denver STEM Days
- 13. 2013. Plenary session chair, 27th Annual AMLI (Assoc. of Medical Laboratory Immunologists) meeting. "New Biologics"
- 14. 2013. Clinical and Translational Science Seminar Series National Jewish Health
- 15. 2013. Denver Allergy Grand Rounds "Mendelian Susceptibility to Mycobacterial Diseases old culprits and new players"
- 16. 2014. Denver Allergy Grand Rounds Diagnostic Immunology an update
- 17. 2014. Clinical Immunology Society Organizer and Chair: School of on diagnostic assessment of immune phenotyping and function in PIDs
- 18. 2014. Plenary session chair, 28th Annual AMLI meeting. 'Cell based therapies'.
- 19. 2015. 'What is the immune system?'. STEM day for 3rd-5th grade at Indian Ridge Elementary School.
- 20. 2016. Denver Allergy Grand Rounds.
- 21. 2016. Clinical Immunology Society, preconference program "2016 Update on Diagnostic Advances in Primary Immunodeficiencies". Session chair: Flow Cytometry as a tool for the diagnosis of immune deficiency'.
- 22. 2016. Plenary session chair, 29th Annual AMLI meeting. "Genomics in Inheritable Immune Disorders; Techniques and Therapy".
- 23. 2017. Plenary session chair, 30th Annual AMLI meeting. "Vaccination and Vaccine Response Assessment in Primary and Acquired Immune Deficiences".
- 24. 2017. Plenary session chair, International Clinical Cytometry Society annual meeting. Invited lecture "Functional evaluation of anti-cytokine autoantibodies".
- 25. 2017. Plenary session chair, International Clinical Cytometry Society annual meeting. "Immune deficiency"
- 26. 2019. Invited speaker, International Society for Laboratory Hematology annual meeting. "The Role of Flow Cytometry in Immunodeficiency
- 27. 2020. Invited chair and faculty: Workshop in diagnostic testing for primary immunodeficiencies. Royal Children's Hospital, Melbourne, Australia.
- 28. 2020. Invited speaker: Section of Infectious Disease, Dept. of Pediatrics, University of Colorado SOM. 'The Diagnostic and Translational Immunology Laboratory – at the intersection of basic and clinical research'.

## **TEACHING ACTIVITIES:**

1. Dental School, 1<sup>st</sup> year students. Didactic lecture on basic immunology, diagnostic immunological assays, immune deficiency and allergy 2019

Ph (w): 720-777-0676

- 2. Dept. of Pediatrics, Children's Hospital Colorado. Grand Rounds 2019.
- 3. Dept. of Hematology, Children's Hospital Colorado. Noon seminar series- 2019
- 4. Dept. of Pathology and Laboratory Medicine, Children's Hospital, Colorado. Lunch n' learn series. "Food allergy and diagnostic testing"-2019
- 5. Clinical Immunology and Allergy Fellows, Children's Hospital, Colorado. Didactic teaching laboratory immunology-2019-current.
- 6. Started the "Lunch n' Learn" seminar series for the ADx laboratories with the goal of offering continuing education opportunities for ADx staff (2013-2018)
- 7. IMMU 7603 Topics in Clinical Immunology Faculty 2010 and 2011.
- 8. Neutrophil defects and laboratory testing Pathology seminar (multi-site through web conference)
- 9. T and B cell defects and laboratory testing Pathology seminar (multi-site through web conference)
- 10. 1st year fellows, Allergy and Immunology adult division laboratory rotation program: 1:1 teaching and laboratory experience 2009 current
- 11. 2nd year fellows, Allergy and Immunology pediatric division ad hoc instruction in laboratory methods for diagnostic immunology.
- 12. 1st Year Fellows for Pediatric Hematology/Oncology, Children's' Hospital—flow cytometry experience 1:1 teaching 2009-current
- 13. Pediatrics residents, Children's Hospital flow cytometry experience, 1:1 teaching on ad hoc basis.
- 14. Pediatrics noon seminar series: 2009-current
- 15. Annual Allergy Grand Rounds 2013 current
- 16. Faculty mentor: currently on the faculty mentorship committee for two junior faculty in the Allergy and Immunology division (Pediatrics)
- 17. Regis University: Established an externship program for students in the Biomedical Master's program. Mentored two students over 5 months- both currently pursuing careers in medicine and dentistry (2012- 2013). Following an enthusiastic response from the Regis faculty, the program was extended to the other ADx laboratories at NJH and to one of the clinical divisions for 2014. The program continued to expand with several interns in this program successfully participating in laboratory test development and publications.
- 18. Colorado Biosciences Institute: Established a summer middle/high science school teachers internship program for 2015 (Research Experience in Training or RET program). The middle school science teacher developed an immunology teaching module centered around food allergy and tools for immunological testing that was implemented in the 8th grade classes (STEM launch, Thornton)
- 19. Colorado Biosciences Institute: Mentor: 3rd Annual Mentor program for junior-senior Colorado University undergraduate students. The program matches mentors with students in their final year of undergraduate studies in order to provide exposure to the practical aspects of an education in the sciences, career advice and opportunities.
- 20. Amsterdam University: Mentored undergraduate student 1 month (2013)
- 21. University of Western Australia, Perth: Visiting clinical immunologist spent a year, as part of his fellowship training, gaining experience in esoteric testing performed in my laboratory. Work performed over the course of the year resulted in two presentations at the AMLI annual meeting (2011-2012) and a publication.
- 22. Melbourne University undergraduate immunology course, both didactic and practical/laboratory based teaching.
- 23. Melbourne University and Trinity Residential College Medical Microbiology and Immunology, tutor.

Ph (w): 720-777-0676

Email: vijaya.knight@childrenscolorado.org

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#### **GRANTS:**

### **PAST FUNDING**

1. Colorado Bioscience Discovery and Evaluation Grant – 2014 – June 2018. "Basophil reactivity to specific food allergens as a superior predictor of oral food challenge outcomes than specific IgE levels or the skin prick test." Vijaya Knight and Bruce J. Lanser.

- 2. Advanced Industries State of Colorado Grant Program 2015 current. "Development of a center for synovial fluid analysis" Karin Pacheco, Vijaya Knight and Richard Meehan.
- Colorado Bioscience Discovery and Evaluation Grant -2012-2013 "Development and validation of diagnostic assays for metal and bone cement allergy in joint implant failure." Karin Pacheco and Vijaya Knight
- 4. Colorado Bioscience Discovery and Evaluation Grant -2010-2011. "Immortalization of basophils towards the next generation test for chronic urticaria". Ronald J. Harbeck and Vijaya Nagabhushanam

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#### **BIBLIOGRAPHY**

#### PUBLICATIONS IN PEER REVIEWED JOURNALS

- Nagabhushanam V, Cheers C. Non-major histocompatibility complex control of antibody isotype and Th1 versus Th2 cytokines during experimental infection of mice with Mycobacterium avium. Infect Immun. 2001 Mar;69(3):1708-13. https://www.ncbi.nlm.nih.gov/pubmed/11179347/
- Nagabhushanam V, Praszkier J, Cheers C. Molecular and immunological characterization of Mycobacterium avium 65 kDa heat shock protein (Hsp65). Immunol Cell Biol. 2001 Oct; 79(5):454-61. https://www.ncbi.nlm.nih.gov/pubmed/11564153/
- 3. Stambas J, Pietersz G, McKenzie I, **Nagabhushanam V**, Cheers C. Oxidised mannan-listeriolysin O conjugates induce Th1/Th2 cytokine responses after intranasal immunisation. Vaccine. 2002 Mar 15; 20(13-14):1877-86. https://www.ncbi.nlm.nih.gov/pubmed/11906778/
- 4. **Nagabhushanam V**, Purcell AW, Mannering S, Germano S, Praszkier J, Cheers C. Identification of an I-Ad restricted peptide on the 65-kilodalton heat shock protein of Mycobacterium avium. Immunol Cell Biol. 2002 Dec; 80(6):574-83. https://www.ncbi.nlm.nih.gov/pubmed/12406392/
- 5. **Nagabhushanam V**, Solache A, Ting LM, Escaron CJ, Zhang JY, Ernst JD. Innate inhibition of adaptive immunity: Mycobacterium tuberculosis-induced IL-6 inhibits macrophage responses to IFN-gamma. J Immunol. 2003 Nov 1; 171(9):4750-7. https://www.ncbi.nlm.nih.gov/pubmed/14568951/
- Eggena MP, Walker LS, Nagabhushanam V, Barron L, Chodos A, Abbas AK. Cooperative roles of CTLA-4 and regulatory T cells in tolerance to an islet cell antigen. J Exp Med. 2004 Jun 21; 199(12):1725-30. https://www.ncbi.nlm.nih.gov/pubmed/15210748/
- 7. Lewis CC, Yang JY, Huang X, Banerjee SK, Blackburn MR, Baluk P, McDonald DM, Blackwell TS, Nagabhushanam V, Peters W, Voehringer D, Erle DJ. Disease-specific gene expression profiling in multiple models of lung disease. Am J Respir Crit Care Med. 2008 Feb 15; 177(4):376-87. <a href="https://www.ncbi.nlm.nih.gov/pubmed/18029791/">https://www.ncbi.nlm.nih.gov/pubmed/18029791/</a>
- 8. Robinson WS, Arnold SR, Michael CF, Vickery JD, Schoumacher RA, Pivnick EK, Ward JC, Nagabhushanam V, Lew DB. Case report of a young child with disseminated histoplasmosis and review of hyper immunoglobulin e syndrome (HIES). Clin Mol Allergy. 2011 Nov 29; 9:14. https://www.ncbi.nlm.nih.gov/pubmed/22126402/

Vijaya Knight 5075 South Olathe Circle Centennial, CO 80015 Ph (h): 415-298-0436 Ph (w): 720-777-0676

- 9. Lichtenstein KA, Armon C, **Nagabhushanam V**, Efaw BJ, Frazer-Abel A, Hiserote ME, Alam R. A pilot study to assess inflammatory biomarker changes when raltegravir is added to a virologically suppressive HAART regimen in HIV-1-infected patients with limited immunological responses. Antivir Ther. 2012; 17(7):1301-9. https://www.ncbi.nlm.nih.gov/pubmed/22948290/
- 10. Kartalija M, Ovrutsky AR, Bryan CL, Pott GB, Fantuzzi G, Thomas J, Strand MJ, Bai X, Ramamoorthy P, Rothman MS, **Nagabhushanam V**, McDermott M, Levin AR, Frazer-Abel A, Giclas PC, Korner J, Iseman MD, Shapiro L, Chan ED. Patients with nontuberculous mycobacterial lung disease exhibit unique body and immune phenotypes. Am J Respir Crit Care Med. 2013 Jan 15; 187(2):197-205. <a href="https://www.ncbi.nlm.nih.gov/pubmed/23144328/">https://www.ncbi.nlm.nih.gov/pubmed/23144328/</a>
- Chen Z, Wang S, Erekosima N, Li Y, Hong J, Qi X, Merkel P, Nagabhushanam V, Choo E, Katial R, Alam R, Trikha A, Chu HW, Zhuang Y, Jin M, Bai C, Huang H. IL-4 confers resistance to IL-27-mediated suppression on CD4 (+) T cells by impairing signal transducer and activator of transcription 1 signaling. J Allergy Clin Immunol. 2013 Oct; 132(4):912-921.e5. <a href="https://www.ncbi.nlm.nih.gov/pubmed/23958647/">https://www.ncbi.nlm.nih.gov/pubmed/23958647/</a>
- 12. Pacheco K, Barker L, Maier L, Erb S, Sills M, **Knight V**. Development of a validated blood test for nickel sensitization. J Allergy Clin Immunol. 2013 Sep; 132(3):767-9. doi: 10.1016/j.jaci.2013.03.023. Epub 2013 May 11. PubMed PMID: 23672782. https://www.ncbi.nlm.nih.gov/pubmed/23672782/
- 13. Ovrutsky AR, Merkel PA, Schonteich E, Bai X, Kinney W, Iseman MD, Kartalija M, **Knight V**, Chan ED. Patients with non-tuberculous mycobacterial lung disease have elevated transforming growth factor-beta following ex vivo stimulation of blood with live Mycobacterium intracellulare. Scand J Infect Dis. 2013 Sep; 45(9):711-4. doi: 10.3109/00365548.2013.800947. Epub 2013 Jul 1. PubMed PMID: 23808720. <a href="https://www.ncbi.nlm.nih.gov/pubmed/23808720/">https://www.ncbi.nlm.nih.gov/pubmed/23808720/</a>
- 14. Christopher Czaja, Patricia A. Merkel, Laurel L. Lenz, Molly L. Wolf, Rafeul Alam, Stephen K. Frankel, Aryeh Fischer, Edward D. Chan, Shaila Gogate, Carlos Perez-Velez and **Vijaya Knight**. Rituximab as successful adjunct treatment in a patient with disseminated nontuberculous mycobacteria infection due to acquired anti-interferon-gamma autoantibody. Clinical Infectious Disease. CID 2014:58 (15 March) e115 <a href="https://www.ncbi.nlm.nih.gov/pubmed/24336756/">https://www.ncbi.nlm.nih.gov/pubmed/24336756/</a>
- 15. Germinaro M, Reynolds P, **Knight V**, Alam R. Association of B-cell activating factor receptor deficiency with the P21R polymorphism and common variable immunodeficiency. Ann Allergy Asthma Immunol. 2015 Jul;115(1):82-3 https://www.ncbi.nlm.nih.gov/pubmed/26012370/
- 16. Patricia A. Merkel, Michael D. O'Sullivan, Cynthia Ridge, and **Vijaya Knight**. Critique on the quantitative nature of IgE antibody Measurements. J Allergy Clin Immunol Pract. 2015 Jul 1. pii: S2213-2198(15)00305-0 https://www.ncbi.nlm.nih.gov/pubmed/26143018/
- 17. Cross-Sectional Study of Respiratory Symptoms, Spirometry, and Immunologic Sensitivity in Epoxy Resin Workers. Hines SE, Barker EA, Robinson M, **Knight V**, Gaitens J, Sills M, Duvall K, Rose CS. Clin Transl Sci. 2015 Dec;8(6):722-8. doi: 10.1111/cts.12341. Epub 2015 Nov 10. <a href="https://www.ncbi.nlm.nih.gov/pubmed/26553118">https://www.ncbi.nlm.nih.gov/pubmed/26553118</a>
- 18. Bacterial Manipulation of NK Cell Regulatory Activity Increases Susceptibility to *Listeria monocytogenes* Infection. Sarah E. Clark, Holly C. Filak, Brandon S. Guthrie, Rebecca L. Schmidt, Amanda Jamieson, Patricia Merkel, **Vijaya Knight**, Caroline M. Cole, David H. Raulet, and Laurel L. Lenz. PLoS Pathog. 2016 Jun; 12(6): e1005708. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4905663/
- 19. Amotosalen/UVA treatment inactivates T cells more effectively than the recommended gamma dose for prevention of TA-GVHD. Grace Castro, Patricia A. Merkel, Hannah E. Giclas, Andrew Gibula, Gillian

Ph (w): 720-777-0676

Email: vijaya.knight@childrenscolorado.org

E. Andersen, Laurence M. Corash, Jin Sying Lin, Jennifer Green, **Vijaya Knight**, and Adonis Stassinopoulos. <u>Transfusion.</u> 2018 Apr 2. doi: 10.1111/trf.14589. [Epub ahead of print] <a href="https://www.ncbi.nlm.nih.gov/pubmed/29607502">https://www.ncbi.nlm.nih.gov/pubmed/29607502</a>

20. A comparison of specific IgE and skin prick test results to common environmental allergens using the HYTEC™ 288. Vijaya Knight, Molly L. Wolf, Anita Trikha, Douglas Curran-Everett, Melissa Hiserote and Ronald J. Harbeck. Journal of Immunological Methods. 2018 https://www.ncbi.nlm.nih.gov/pubmed/30031799

## **REVIEWS**

- 1. Abbas AK, Lohr J, Knoechel B, **Nagabhushanam V**. T cell tolerance and autoimmunity. Autoimmun Rev. 2004 Nov; 3(7-8):471-5. PubMed PMID: 15546793. https://www.ncbi.nlm.nih.gov/pubmed/15546793/
- 2. Lohr J, Knoechel B, **Nagabhushanam V**, Abbas AK. T-cell tolerance and autoimmunity to systemic and tissue-restricted self-antigens. Immunol Rev. 2005 Apr; 204:116-27. Review. PubMed PMID: 15790354. https://www.ncbi.nlm.nih.gov/pubmed/15790354/
- 3. Honda JR, **Knight V**, Chan ED. Pathogenesis and risk factors for nontuberculous mycobacterial lung disease. Clin Chest Med. 2015 Mar;36(1) <a href="https://www.ncbi.nlm.nih.gov/pubmed/25676515">https://www.ncbi.nlm.nih.gov/pubmed/25676515</a>
- 4. **Vijaya Knight**, Patricia A. Merkel and Michael D. O'Sullivan. Anticytokine Autoantibodies: Association with Infection and Immune Dysregulation. Antibodies 2016, 5, 3; doi:10.3390/antib5010003
- 5. The utility of flow cytometry for the diagnosis of primary immunodeficiencies. Vijaya Knight. Int J Lab Hematol. 2019;41(Suppl. 1):63–72. <a href="https://doi.org/10.1111/ijlh.13010">https://doi.org/10.1111/ijlh.13010</a>
- 6. Functional Analysis of Anti-cytokine Autoantibodies Using Flow Cytometry. Patricia A. Merkel, Terri Lebo and Vijaya Knight. Front. Immunol., 12 July 2019 | https://doi.org/10.3389/fimmu.2019.01517

### **BOOKS**

- Textbook of Allergy for the Clinician Editors: Pudupakkam K. Vedanthan, Harold S. Nelson, Shripad N. Agashe, Mahesh P A, Rohit Katial. Publication date, February 15, 2014 Chapter: In vitro laboratory tests for the diagnosis of allergy: Ronald J. Harbeck and Vijaya Nagabhushanam
- 2. Manual of Molecular and Clinical Laboratory Immunology 8th edition. Editors: Detrick, Hamilton and Schmitz. Publication date, 2016 Chapter: Validation and Quality Control in the Clinical Immunology Laboratory: Vijaya Knight and Terri Lebo.

# OTHER PUBLICATIONS / WEBINARS

- 1. Neutrophil Defects Pearls of Laboratory Medicine. CME Webinar published by the American Association for Clinical Chemistry. 2016. <a href="https://www.aacc.org/clinical-chemistry-traineecouncil/trainee-council-in-english/pearls-of-laboratory-medicine">https://www.aacc.org/clinical-chemistry-traineecouncil/trainee-council-in-english/pearls-of-laboratory-medicine</a>.
- 2. Utility of BD Multitest 6 color TBNK panel in clinical care of immune deficiency Webinar , March 28<sup>th</sup>, 2018.
  - https://engage.vevent.com/index.jsp?eid=3486&seid=142&mkt\_tok=eyJpIjoiTTJNMFlUaGxNR1psTVdFeClsInQiOiJrdnU1ME83R2p2WG1uRG43QVpNSXZNVHk1eG01YkdTRFRZUG9XWkU3c1VwYjFScm1DY

Ph (w): 720-777-0676

Email: vijaya.knight@childrenscolorado.org

3diVnFHb2xmNmt6V0hlVlwvVnFRSDNaUHRUQk45dUdTTnFYeW1ZMzdKTTF3QmFGbG9yRUxQb0NOaVllK25kS0xZM2VJamhndXdvc3AzdGYifQ%3D%3D

- 3. Alpha-1 Antitrypsin Deficiency: Which Test? When? Clinical Chemistry No. CC 10-2 (CC-384) **Vijaya Nagabhushanam**, MD, PhD, Ronald J. Harbeck, PhD, and Robert A. Sandhaus, MD, PhD. National Jewish Health, Denver, CO.
- 4. An overview of primary immunodeficiency disorders (PID) and laboratory testing. https://www.labroots.com/webinar/overview-primary-immune-deficiency-disorders-pid-laboratory-testing-pid

### ABSTRACTS AT NATIONAL MEETINGS

- Cooperative roles of CTLA-4 and regulatory T cells in tolerance to an islet cell antigen. Vijaya Nagabhushanam, Mark Eggena, Lucy Walker and Abul K. Abbas. 2004. 12th International Congress of Immunology, Montreal, Canada.
- 2. Methods to monitor IFNg responses following vaccination with a live attenuated influenza vaccine (LAIV). Lorraine Gemmell, **Vijaya Nagabhushanam**, Deepali Kulkarni, Jennifer Woo, George Kemble. 2008 Midwinter Conference of Immunologists- Asilomar
- 3. Inhibition of STAT3 driven gene expression in melanoma cells by SCV-07. **V. Nagabhushanam**, K. Subbarao, M. Ramachandran, J. Reddy and C. Tuthill. Journal of Clinical Oncology, 2008 ASCO Annual Meeting Proceedings (Post-Meeting Edition). Vol 26, No 15S (May 20 Supplement), 2008: 14619
- A look at the performance characteristics of the Stratify JCV™ antibody ELISA. Nguyen, N.L, Earley, A.K, Wolf, M, Chen, P, Nagabhushanam, V and Menegus M. A Poster presentation: 28th Clinical Virology Symposium, 2012
- 5. In Vitro Basophil Assays To Assess The Biological Significance Of IgE Binding To Cross Reactive Carbohydrate Determinants (CCD) To Diverse Legumes In Peanut Allergic Subjects. SN Pramod, AO Ofori-Anti, RJ Harbeck, V Nagabhushanam, L Vogel, K Foetisch, S Vieths and RE Goodman. 2010 AAAAI meeting. The Journal of Allergy and Clinical Immunology. Volume 125, Issue 2, Supplement 1, Page AB87, Feb. 2010
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- Functional detection of neutralizing antibodies to IFNγ: demonstration of utility from a clinical case.
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- 10. Poor dilutional linearity of food allergen specific IgE measurement by ImmunoCAP in samples with high total IgE. Michael O'Sullivan MBBS, Cynthia Ridge, Patricia Merkel, Maaz Mohiuddin, Donald Leung, **Vijaya Nagabhushanam**. 2012 AMLI meeting poster session

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- 11. Evaluation of a Functional Basophil Activation Test (BAT) for the Diagnosis of Food Allergy. Patricia Merkel, Michael O'Sullivan, Maaz Mohiuddin, Donald Leung, and **Vijaya Knight**. Awarded best poster in the clinical and translational science category. MOOR poster session 2013
- 12. Evaluation of a Functional Basophil Activation Test (BAT) for the Diagnosis of Food Allergy. **Vijaya Knight**, Patricia Merkel, Michael O'Sullivan M.B.B.S, Maaz Mohiuddin M.D. and Donald Leung M.D., Ph.D. 2013 AMLI meeting poster session
- 13. A comparison of specific IgE and skin prick test results to common environmental allergens using the HYTEC™ 288. Molly Wolf, Melissa Hiserote M.S., Anita Trikha M.D., Ron Harbeck Ph.D., and **Vijaya Knight** M.D., PhD 2013 AMLI meeting poster session
- 14. The P.Gly219Arg Polymorphism of the CD40L Gene Results in Differential Binding of Two Anti-CD40L Clones. Bruce J. Lanser; **Vijaya Knight**, Terri Lebo, Erwin W. Gelfand. CIS 2015 meeting. Vijaya Knight 5075 South Olathe Circle Centennial, CO 80015 Ph: 415-298-0436 Email: vnagabh@me.com 9
- 15. Indeterminate Quantiferon-TB assay as a possible clue to adult onset immunodeficiency: A case of IFNg autoantibodies with novel MHC genotype. Megan S, Sara M May, **Vijaya Knight**, and Avni Y. Joshi. CIS 2015 meeting (collaboration with Mayo Clinic)
- 16. Is allergen-specific basophil activation predictive of oral food challenge outcomes? **Vijaya Knight**, Patricia Merkel, Bruce Lanser, Michael O'Sullivan, Maaz Mohiuddin, Erwin W. Gelfand, M.D. and Donald Leung. 2015 AAAAI meeting.
- 17. Variation of in Vitro Glucocorticoid Response in Asthma. Monica B. Reddy, MD, Donald Y.M. Leung, MD PhD FAAAAI, Joseph D. Spahn, MD, Douglas Curran-Everett, PhD, **Vijaya Knight**, MD, PhD, Ronina A. Covar, MD FAAAAI. 2016 AAAAI
- 18. Amotosalen and UVA is more effective in the inactivation of T-cells than gamma irradiation when assessed by a Limiting Dilution Assay (LDA). Kent Carter, Patricia A. Merkel, Hannah E. Giclas, **Vijaya Knight,** Grace Castro, Adonis Stassinopoulos. 2017. Oncology Nursing Society 42nd Annual Congress
- 19. A cell based assay for the detection of autoantibodies to IL-17 in human serum. Matthew Phillips and **Vijaya Knight**. 2017 AMLI annual meeting.
- 20. Validation of Flow Cytometry Assays for the Diagnosis of Immune Deficiencies. Rick Schlichtemeier, Ping Chen, Nadia Kondrachuk, Terri Lebo and **Vijaya Knight**. 2017 ICCS annual meeting.
- 21. A multi-center method comparison for detection of autoantibodies to human complement Factor H (AFH). Abstracts/Molecular Immunology 89(2017) 115-120. Maria Alice Willrich, Kari Gurtner, Zoltan Prohaszka, Vijaya Knight, Jaclyn Dennis and David L. Murray.
- 22. Validation of complement Factor H function assay and assessment of patients diagnosed with aHUS. AbstractsMolecular Immunology 89 (2017), 145-146. Jaclyn Dennis, Jordan Abbott, Patricia C. Giclas, Erin Archuleta, Matthew Eggleston and **Vijaya Knight.**
- 23. Improvement of clinical immunofixation electrophoresis assay for C3 nephritic factor.
  Alexander Borowiec, Matthew Murrell, Carter Reid, **Vijaya Knight**, Jaclyn R. Dennis. 2018. 27<sup>th</sup>
  International Complement Workshop, Santa Fe, NM
- 24. Comparison of bead-based multiplexed immunoassay and radial immunodiffusion methods for measuring complement protein concentrations. Erin Archuleta, Brandon Hellbusch, **Vijaya Knight**, Jaclyn R. Dennis. 2018. 27<sup>th</sup> International Complement Workshop, Santa Fe, NM
- 25. Comparison of commercial reagents with in-house reagents for hemolytic testing of complement function. Dana Le, Matthew Eggleston, Eric Woroch, Peter Simpson, **Vijaya Knight**, Jaclyn R. Dennis. 2018. 27<sup>th</sup> International Complement Workshop, Santa Fe, NM

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- Impact of thaw conditions on clinical C4a level results. Alexander Borowiec, Amanda Kashenberg, Matthew Eggleston, Roza Mkonu, Linda Remigio, Peter Simpson, Vijaya Knight, Jaclyn R. Dennis. 2018. 27<sup>th</sup> International Complement Workshop, Santa Fe, NM
- 27. Effect on C3a and C4a levels when storing samples at -80 °C versus -20 °C. Brandon Hellbusch, Alexander Borowiec, **Vijaya Knight**, Jaclyn R. Dennis. 2018. 27<sup>th</sup> International Complement Workshop, Santa Fe, NM
- 28. Family history is relevant in deciphering immune deficiency syndromes even in adults
  Roshini M. Kuriakose, Crescent R. Isham, Matt Phillips, Marissa Kuhl, **Vijaya Knight**, Avni Y. Joshi, Amir
  A. Sadighi Akha. ACAAI 2018 Scientific Meeting. Seattle
- 29. Cannabis Allergy In A Young Child With Severe Asthma Exposed To Secondhand Marijuana Smoke. Bryce C. Hoffman, Marissa Kuhl, **Vijaya Knight**, Matthew Phillips, and Nathan Rabinovitch. ACAAl 2018 Scientific Meeting. Seattle.
- 30. The Potential Negative Effects of Microgravity on Human Cartilage. R.T. Meehan, R. Scheuring, P. Mcculloch<sup>,</sup> E. Hoffman, E. Regan<sup>,</sup> P Parmar, M. Wolf<sup>,,</sup> M Gill, J. Crooks, J. Hill, K. Pacheco, **V. Knight.** American Society for Gravitational and Space Research 2019. Denver, CO.