

TUFTS UNIVERSITY SCHOOL OF MEDICINE
CURRICULUM VITAE AND BIBLIOGRAPHY FORMAT
FOR CLINICAL FACULTY

DATE PREPARED:	July 29, 2021
FULL NAME AND DEGREE/S:	Alexander Panda MD, PhD, MPH
CURRENT ADMINISTRATIVE TITLE	Scientist II, Assistant Professor of Medicine
OFFICE MAILING ADDRESS	Nutritional Immunology Laboratory Jean Mayer USDA HNRCA at Tufts University, 711 Washington Street Boston 02111, Office 618
OFFICE PHONE NUMBER:	617-556-3233
E-MAIL ADDRESS(ES):	alexander.panda@tufts.edu

EDUCATION & TRAINING

Undergraduate

1987 B.A. Kreuzschule Dresden, Germany Biochemical Sciences

Graduate School and/or Medical School

1999 M.D. Alexander von Humboldt University zu Berlin, Germany, Medicine
2001 M.P.H. Johns Hopkins School of Public Health, Baltimore, MD, Epidemiology
2012 Ph.D. Yale University Graduate School of Arts and Science, Immunology

Postdoctoral Training

Internship and Residencies:

2001-2004 Intern and Resident in Medicine, Albert Einstein College in Medicine,
Jacobi Medical Center, Bronx, New York City

Fellowships:

2004-2006 Fellow in Infectious Diseases, New York University School of Medicine,
New York City

2006-2010 Fellow in Pulmonary and Critical Care Medicine
Yale University School of Medicine, New Haven, CT

Other Professional Training

2000 Diploma Course in Tropical Medicine and Hygiene (DTM&H) at the London
School of Hygiene and Tropical Medicine, United Kingdom

2000 Diploma Course in Geriatric Medicine (DGM), Kings College London
United Kingdom

Licensure and Certification

2005 Diplomat, American Board of Internal Medicine
Specialty: Internal Medicine #266680

2006 and 2016 Diplomat, American Board of Internal Medicine
Subspecialty: Infectious Diseases #266680

2016 Diplomat, American Board of Internal Medicine
Subspecialty: Critical Care Medicine #266680

2017 Diplomat, American Board of Internal Medicine
Subspecialty: Pulmonary Medicine #266680

ACADEMIC APPOINTMENTS

2013 - Scientist II (primary), JM USDA-HNRCA at Tufts University

2013 - Assistant Professor of Medicine, Pulmonary, Critical Care and Sleep Division at Tufts
New England Medical Center

2013 - Assistant Professor of Medicine, Graduate School of Biomedical Sciences, Tufts
University

2012 – 2013 Instructor - Yale University School of Medicine/Section of Pulmonary and
Critical Care Medicine

EMPLOYMENT

2019 – Intensivist at Anna Jaques Hospital, Newburyport, MA

2013 - Scientist II, JM USDA-HNRCA at Tufts University

2013 - Assistant Professor of Medicine, Pulmonary, Critical Care and Sleep Division at Tufts
New England Medical Center

2012 – 2013 Instructor - Yale University School of Medicine/Section of Pulmonary and
Critical Care Medicine

2011 – Intensivist at Beverly Hospital, Lahey Health, Beverly MA

2009 – 2011 Hospitalist at Anna Jaques Hospital, Newburyport, MA

AWARDS AND HONORS

- 1999 Graduation summa cum laude, Alexander von Humboldt Universität zu Berlin, Germany
- 1999 Robert Koch Award of the Charité, Medical Faculty of the Humboldt University Berlin, Germany
- 1999 von Leyden Memorial Medal of the Berlin Society of Internal Medicine, Germany
- 1995 Recipient of a Scholarship of the German Academic Exchange Service (DAAD) to conduct research at the Johns Hopkins Medical Institutions
- 1999 Recipient of a Scholarship from the German Academic Exchange Service (DAAD) to study at the London School of Hygiene and Tropical Medicine
- 2000 Fully funded M.P.H. student at the Johns Hopkins School of Public Health, Scholarship awarded by the German Academic Exchange Service (DAAD)
- 2001 Max Bürger Award of the German Society of Gerontology
- 2003 Travel Grant of the Infectious Diseases Society of America for “excellence in abstract submission
- 2005 Travel Grant of the Infectious Diseases Society of America for “excellence in abstract submission”
- 2006 Travel Grant of the Infectious Diseases Society of America for “excellence in abstract submission”
- 2007 Special citation for Fellows in Training by the Infectious Diseases Society of America for the “caliber of abstract submitted”
- 2007 Travel Grant of the Infectious Diseases Society of America for “excellence in abstract submission”
- 2008 Travel Grant of the Infectious Diseases Society of America for “excellence in abstract submission”
- 2008 Vision Grant Award from the Preeclampsia Foundation
- 2009 Travel Grant of the Infectious Diseases Society of America for “excellence in abstract submission
- 2010 Brookdale Leadership in Aging Fellow
- 2013 Beeson Fellow (Paul Beeson Career Development Award in Aging Research)

PROFESSIONAL SOCIETIES

2000 – present Member of the German Society of Gerontology and Geriatrics

2003 – present Member, Infectious Diseases Society of America

2007 - present Member, American College of Chest Physicians

2008 – present Member of the American Geriatrics Society

EXTERNAL COMMITTEE SERVICE

National:

4/2018 – Writing Task Force Member, American Board of Internal Medicine

TRAINING OF STUDENTS/TRAINEES

Student/Mentees:

7/2010 - 9/2010	Charlotte Zheng	MD student	Attending Physician
9/2010 - 6/2011	Charles Miller	MD/PhD student	Fellow ID
6/2012 - 8/2012	Fangfang Bei	MD student	Attending Physician
6/2013 – 8/2013	David Chupp	PhD student	Postdoc
9/2013 – 5/2017	Kelly Breitbart	PhD student	Postdoc
03/2021-	Edwin Ortega	PhD student	

VISITING PROFESSORSHIPS & INVITED ACADEMIC PRESENTATIONS

Visiting Professorships

6/2014 – 7/2014 Max Planck Institute for Infection Biology, Berlin, Germany
4/2015 – 5/2015 Robert Koch Institute, Berlin, Germany
2/2016 – 3/2016 Max Planck Institute, Dresden, Germany

Invited Academic Presentations

Local/Regional:

1/14/13 Age Associated Alterations in Toll-like Receptor Function, Seminar
HNRCA, Tufts University, Boston, MA

National:

8/15/17 Dysregulation of Human Toll-like receptor function in aging, Seminar
Yale University School of Medicine, New Haven, CT

International:

1/17/18 Human Microbiota in Aging, Lecture
Charite, Berlin, Germany

MAJOR RESEARCH INTERESTS

My research focuses on defects of the innate immunity arm in older adults. We recently demonstrated a generalized defect in TLR function in DCs from older individuals. The Beeson award helped me to study the mechanism of decreased TLR function in dendritic cells of older adults. After the transfer of my Beeson grant to Tufts Medical School I have focused on respiratory infections in the elderly and established the only bronchoscopy program for research purposes in healthy older adults in the New England area. This program is interdisciplinary and open to all researches focusing on lung pathology. More recently I am focusing on the effects of vitamin zinc in preventing respiratory infections. I am the principal investigator of an R34 pilot grant to evaluate the tolerability of 2 different zinc doses in nursing home residents with the goal for a large clinical trial to evaluate the potential of zinc to prevent respiratory infections in nursing home residents.

I was able to lend my expertise to research groups looking at specific disease states such as preeclampsia or legionnaires disease. I am fully committed to studying the mechanisms of defects in immunity in older adults in order to explain the deterioration of immunity seen in older adults, and aid in the rational development of novel treatments and vaccines geared specifically towards older adults. My research will benefit almost two million older adults hospitalized with an infectious disease each year in the United States.

RESEARCH SUPPORT ACTIVE

7/12021-6/2022

Mapping Genital Inflammation in Women with Novel Single-Cell Approaches

PI Shruti Sharma, Marta Rodriguez-Garcia

Russo Family Award, Tufts University School of Medicine

\$10,000

Co-PI

7/1/2021-6/30/2023

Zinc intervention in prevention of pneumonia in elderly (ZIPP)

PI MEYDANI/PANDA

NIH/NHLBI

\$400,000

Co-PI

4/1/2019-3/2024

Intracellular nucleic acid sensing and age-associated chronic inflammation

PI SHARMA

NIA/NIH

R01AI142005-01

\$500,000

Co-I

RESEARCH SUPPORT PREVIOUS

6/1/2020-5/30/2021

IMMUNE SIGNATURES ASSOCIATED WITH COVID-19 DISEASE

PI Poltorak

COVID-19 Rapid Response Seed Funding Program

Tufts University and Tufts Medical Center

\$50,000

Co-I

5/1/2019-04/30/2020

Polymorphonuclear Leukocyte Senescence in Age- Associated susceptibility to Streptococcus pneumoniae lung infection

PI LEONG

One Healthy Aging at Tufts Initiative

\$40,000

Co-I

7/1/2017-6/30/2018

Age associated defects of TLRs on human alveolar macrophages

PI PANDA

DSM/Private Industry Grant

DSM 2018

\$10,000

PI

8/15/2012-6/30/2018

Paul B. Beeson Clinical Scientist Development Award in Aging (K08)

Age associated defects in localization and trafficking of Toll-like receptor 1

PI PANDA

NIA/AFAR

1K08AG042825

\$500,000

PI

7/1/2012-6/30/2017

Characterizing TLR Function of Human Dendritic Cells in the Elderly

PI PANDA

NIAID/NIH

1K08AI087876

\$500,000

PI

(returned because of overlap with Beeson award)

7/1/2010-6/30/12

Brookdale Leadership in Aging Fellowship

Altered innate immune functioning of dendritic cells in elderly humans

PI PANDA

Brookdale Foundation

\$300,000

PI

1/1/2009-12/31/2009

Vision Grant Award

Characterization of TLR patterns in blood from preeclamptic women

PI PANDA

The Preeclampsia Foundation

\$50,000

PI

BIBLIOGRAPHY

Liu BC, Sarhan J, **Panda A**, Muendlein HI, Ilyukha V, Coers J, Yamamoto M, Isberg RR, Poltorak A. Constitutive Interferon Maintains GBP Expression Required for Release of Bacterial Components Upstream of Pyroptosis and Anti-DNA Responses. *Cell Rep*. 2018 Jul 3;24(1):155-168.e5. doi: 10.1016/j.celrep.2018.06.012

Bou Ghanem E, Lee JN, Joma BH, Meydani SN, Leong JM, **Panda A**. The alpha-tocopherol form of Vitamin E boosts elastase activity of human PMNs and their ability to kill *Streptococcus pneumoniae*. *Front. Cell. Infect. Microbiol*. 2017 May 3;7:161. doi: 10.3389/fcimb.2017.00161. eCollection 2017.

Young BC, Stanic AK, Panda B, Rueda BR, **Panda A**. Longitudinal expression of Toll-like receptors on dendritic cells in uncomplicated pregnancy and postpartum. *Am J Obstet Gynecol*. 2014 May; 210(5): 445.e1-6. PMID: 24291497

Panda A, Chen S, Shaw AC, Allore HG. Statistical approaches for analyzing immunologic data of repeated observations: a practical guide. *J Immunol Methods*. 2013 Dec 15;398-399:19-26. Review. PMID: 24055129

Panda B, **Panda A**, Ueda I, Abrahams VM, Norwitz ER, Stanic AK, Young BC, Ecker JL, Altfeld M, Shaw AC, Rueda BR. [Dendritic cells in the circulation of women with preeclampsia demonstrate a pro-inflammatory bias secondary to dysregulation of TLR receptors](#). *J Reprod Immunol*. 2012 Jun;94(2):210-5. Epub 2012 Mar 21.

Shaw AC, **Panda A**, Joshi SR, Qian F, Allore HG, Montgomery RR. 2010. [Dysregulation of Human Toll-like Receptor Function in Aging](#). *Ageing Res Rev*. 2011 Jul;10(3):346-53. Epub 2010 Nov 10. Review.

Shaw AC, Joshi S, Greenwood H, **Panda A**, Lord JM. 2010. Aging of the innate immune system. *Curr Opin Immunol*. 2010 Aug;22(4):507-13.

Hewing B., Ghaeni L., Dreker H., **Panda A.**, Baumann G., Borges A. 2010. Echocardiographic diagnosis, management and monitoring of pulmonary embolism with right heart thrombus. *Cardiovasc Ultrasound*. 2010 May 16;8:18.

Panda B., Iruretagoyena I., Stiller R., **Panda A**. 2010. Influenza vaccination rates during pregnancy: Patient and Physician Attitudes and subsequent interventions to increase vaccination rates. *J Matern Fetal Neonatal Med*. 2010 Jul 1.

Panda B, **Panda A**, Riley LE. Selected viral infections in pregnancy. *Obstet Gynecol Clin North Am*. 2010 Jun;37(2):321-31.

Panda A., Qian F., Mohanty S., Van Duin D, Towle V. Newman F.K., Belshe R.B, Allore H.G., Montgomery R.R. , Shaw A.C. 2010. A Generalized, Age-associated Defect in Toll-like Receptor Function in Primary Human Dendritic Cells. *Journal of Immunology*. 2010. 1;184(5):2518-27.

Panda A., McArdle J. 2010. To bronch or not to bronch? A recurring challenge in neutropenic patients with pulmonary infiltrates. *Connecticut Medicine*. 2010 Feb Vol 74 (2) 69-77.

Panda, A., Arjona, A., Sapey, E., Bai, F., Fikrig E., Montgomery, RR., Lord, JM., Shaw A. 2009. Innate Immunosenescence - Causes and Consequences for Immunity in Old Age. *Trends Immunol*. 2009, 30(7):325-33.

Borges A.C., Knebel F., Lembcke A., **Panda A.**, Komoda T., Hiemann N.E., Meyer R., Baumann G., Hetzer R. 2009. [Bronchogenic cyst of the interatrial septum presenting as atrioventricular block](#). *Ann Thorac Surg*. 2009 Jun;87(6):1920-3.

Panda B., Iruretagoyena I., Stiller R., **Panda A.** 2009. Antibiotic Resistance and Penicillin Tolerance in Clinical Isolates of Group B Streptococci. *J Matern Fetal Neonatal Med*. 2009 Feb;22(2):111-4.

Althoff TF, Knebel F, **Panda A**, McArdle J, Gliech V, Franke I, Witt C, Baumann G, Borges AC. 2008. Long-term Follow-up of a Fenestrated Amplatzer Atrial Septal Occluder in Pulmonary Arterial Hypertension. *Chest*. 2008 Jan;133(1):283-5.

Hartmann J., Knebel F., Eddicks S., Beling M., Grohmann A., **Panda A.**, Jacobi C.A., Muller J.M., Baumann G. and Borges A.C. 2007. Noninvasive monitoring of regional and global function in peritoneal metastasis rat model after surgical and cytostatic therapy: assessment with tissue Doppler and non-Doppler 2D strain echocardiography. *Cardiovascular Ultrasound*, 2007 5:23.

Panda, A. 2006. HIV-Associated Nephropathy and Drug -Induced Renal Injury. MedGenMed eJournal. <http://medgenmed.medscape.com/viewarticle/531370>.

Borges A.C., Knebel F., Eddicks S., Franke I., Witt C., **Panda, A.**, Baumann G. 2006. Ventricular Function Assessed by Two-dimensional Strain and Tissue Doppler Echocardiography in Patients with Pulmonary Arterial Hypertension and Effect of Vasodilator Therapy. *Am J Cardiol* 15;98(4):530-4.

Knebel F, Gliech V, Walde T., **Panda A.**, Sanad W., Eddicks S, Baumann G., Borges A.C. 2004. Percutaneous Closure of Interatrial Communications in Adults – Prospective Embolism Prevention Study with Two- and Three-Dimensional Echocardiography. *Cardiovascular Ultrasound*. 2 (1):5.

Borges A.C., Kivelitz D., Walde T., Reibis R.K., Grohmann A., **Panda A.**, Wernecke K.D., Rutsch W., Hamm B., and Baumann G. 2003. Apical Tissue Tracking Echocardiography For Characterization of Regional Left Ventricular Function: Comparison With Magnetic Resonance Imaging in Patients After Myocardial Infarction. *Journal of the American Society of Echocardiography*. Vol 16, No 3, 254-62.

Giraldez R.R., **Panda A.**, and Zweier J.L. 2000. Endothelial Dysfunction Does Not Require Loss of Nitric Oxide Synthase. *Am Physiol Heart Circ Physiol*. Vol 278, H2020-H2027.

Giraldez R.R., **Panda A.**, Xia Y., Sanders S.P., and Zweier J.L. 1997. Decreased Nitric-Oxide Synthase Activity Causes Impaired Endothelium-dependent Relaxation in the Postischemic Heart. *The Journal Of Biological Chemistry*. Vol. 272, No 34, 21420-21426.