
CURRICULUM VITAE

NAME

Aashish R. Jha, PhD.
 Department of Human Genetics,
 The University of Chicago, Chicago, IL, USA.

CONTACT INFORMATION

email: arjha@stanford.edu
nepaliaashish@gmail.com
 Tel: N/A

EDUCATION

INSTITUTION	DEGREE	YEAR	FIELD OF STUDY
The University of Chicago, Chicago, IL	Ph.D.	2015	Human Genetics
University of California Berkeley, Berkeley, CA	B.A.	2007	Molecular and Cell Biology
College of San Mateo, San Mateo, CA	A.A., A.S.	2004	Liberal Studies, Biology
National School of Sciences, Kathmandu, Nepal	High school	2000	Biology

PUBLICATIONS FROM Ph.D. RESEARCH

Shared genetic signals of hypoxia adaptation in Drosophila and in high-altitude human populations. **Jha AR**, Zhou D, Brown CD, et al. in press, Mol Biol Evol.

Whole genome resequencing of experimental populations reveals polygenic basis of egg size variation in Drosophila melanogaster. **Jha AR**, Miles CM, Lippert N, et al. 2015. Mol Biol Evol. PMID: 26044351

Experimentally evolved populations of Drosophila melanogaster reveal polygenic basis of complex traits. **PhD dissertation title.**

mir-9a minimizes the phenotypic impact of genomic diversity by buffering a transcription factor. Cassidy JJ, **Jha AR**, Posadas DM, et al. 2013. Cell. PMID: 24360277

Integrated genomic analyses and functional validation reveals novel hypoxia response genes that affect patient survival in aggressive neuroblastoma. **Jha AR**, Applebaum M, et al. (in preparation)

Short, simple, & cost effective experiments for high school biology classes. **Jha AR**, White KP, et al. (in preparation)

FELLOWSHIPS and HONORS

- 2012-2014 Predocctoral Fellowship (T32), Center for Systems Biology of O₂ Sensing, Dept. of Medicine, The University of Chicago, Chicago, IL
- 2014 Undergraduate Recruitment Travel Award for the American Society of Human Genetics Annual Meeting, San Diego, CA, Biological Sciences Division, The University of Chicago, Chicago, IL
- 2014 Undergraduate Recruitment Travel Award for the 55th Annual Drosophila Research Conference, San Diego, CA. Biological Sciences Division, The University of Chicago, Chicago, IL
- 2013 Future of Science Fund, Keystone Symposia Travel Award
- 2011-2012 PIRE Fellowship, Open Science Data Cloud, The University of Chicago, Chicago, IL
- 2010 Travel Award, 17th International HIV Dynamics and Evolution Conference, Monterey, CA
- 2009 Symposium Fellow, "Evolution: the Molecular Landscape," Cold Spring Harbor Laboratory's 74th Symposium celebrating Charles Darwin's bicentennial and 150th anniversary of the publication of *The Origin of species*, CSHL, NY
- 2004-2006 R. Sternheim, Rodkey, and G. Douglass Scholarships, University of California Berkeley, Berkeley, CA
- 2004 Allan R. Brown Outstanding Student Leadership Award, College of San Mateo, San Mateo, CA
- 2003-2004 Student Services and Associated Students Scholarships, College of San Mateo, San Mateo, CA

PREVIOUS RESEARCH EXPERIENCE

- 2006-2009 Research Associate I/III, University of California San Francisco, San Francisco, CA
- 2004-2005 Research Assistant, iMEDD Inc., Foster City, CA

PUBLICATIONS FROM PREVIOUS RESEARCH

Global diversity, population stratification, and selection of human copy number variation. Sudmant PH, Mallick S, Nelson BJ et al. 2015. Science. PMID: 26249230

Ancient human genomes suggest three ancestral populations for present-day Europeans. Lazardis I, Patterson N, Mitnik A, et al. 2014. Nature. PMID: 25230663

Evolutionary History of the Proviruses HERV-K113 and HERV-K 115. Garrison KE, Nixon DF, Pillai SK, **Jha AR**. 2014. eLS.

Associations between antibodies to a panel of Plasmodium falciparum specific antigens and response to sub-optimal antimalarial therapy in Kampala, Uganda. Keh CE, **Jha AR**, et al. 2012. PLoS ONE. PMID: 23285095

Tim-3 marks human natural killer cell maturation and suppresses cell-mediated cytotoxicity. Ndhlovu LC, Lopez-Vergès S, Barbour JD, Jones RB, **Jha AR**, et al. 2012. Blood. PMID: 23285095

An Aboriginal Australian genome reveals separate human dispersals into Asia. Rasmussen M, Guo X, Wang Y, et al. 2011. Science. PMID: 21940856

Human endogenous retrovirus K106 (HERV-K106) was infectious after the emergence of anatomically modern humans. **Jha AR**, Nixon DF, Rosenberg MG, et al. 2011. PLoS ONE. PMID: 21633511

HTLV-1 Tax Specific CD8+ T Cells Express Low Levels of Tim-3 in HTLV-1 Infection: Implications for Progression to Neurological Complications. Ndhlovu LC, Leal FE, Hasenkrug AM, **Jha AR**, et al. 2011. PLoS Negl. Trop. Dis. PMID: 21541358

IL-2 immunotherapy to recently HIV-1 infected adults maintains the numbers of IL-17 expressing CD4+ T (T(H)17) cells in the periphery. Ndhlovu LC, Sinclair E, Epling L, Tan QX, Ho T, et al. 2010. J. Clin. Immunol. PMID: 20571894

A novel human CD4+ T-cell inducer subset with potent immunostimulatory properties. Ndhlovu LC, Leal FE, Eccles-James IG, **Jha AR**, et al. 2010. Eur. J. Immunol. PMID: 19877008

Lower numbers of circulating Natural Killer T (NK T) cells in individuals with human T lymphotropic virus type 1 (HTLV-1) associated neurological disease. Ndhlovu LC, Snyder-Cappione JE, Carvalho KI, Leal FE, Loo CP, et al. 2009. Clin. Exp. Immunol. PMID: 19778295

Cross-sectional dating of novel haplotypes of HERV-K 113 and HERV-K 115 indicate these proviruses originated in Africa before Homo sapiens. **Jha AR**, Pillai SK, York VA, et al. 2009. Mol Biol Evol. PMID: 19666991

Interleukin-10-secreting T cells define a suppressive subset within the HIV-1-specific T-cell population. Torheim EA, Ndhlovu NC, Pettersen FO, Larsen T, **Jha AR**, et al. 2009. Eur. J. Immunol. PMID: 19384871

Tim-3 expression defines a novel population of dysfunctional T cells with highly elevated frequencies in progressive HIV-1 infection. Jones RB, Ndhlovu LC, Barbour JD, Sheth PM, **Jha AR**, et al. 2008. J Exp Med. PMID: 19001139

Suppression of HIV-1 plasma viral load below detection preserves IL-17 producing T cells in HIV-1 infection. Ndhlovu LC, Chapman JM, **Jha AR**, et al. 2008. AIDS. PMID: 18453860

INVITED ORAL PRESENTATIONS

- 2014 Spring Quarter Seminar, Department of Physiology, University of California San Diego, San Diego, CA. *"Identification of shared adaptive genes in high altitude humans using experimentally evolved Drosophila populations."*
- 2014 55th Annual Drosophila Research Conference, San Diego, CA. *"Signatures of polygenic adaptation from common natural variants in egg size evolution in experimentally evolved Drosophila melanogaster."*
- 2014 Keystone Symposia: Sensing and Signaling of Hypoxia: Interfaces with Biology and Medicine. Breckenridge, Co. *"Convergent evolution of hypoxia adaptation in laboratory selected Drosophila melanogaster and in high altitude human populations."* (Accompanied by a poster with the same title)
- 2013 54th Annual Drosophila Research Conference, Washington DC. *"Adaptation to hypoxia in experimentally evolved Drosophila melanogaster: convergent and highly polygenic."*
- 2012 High Altitude and Cold: Adaptation to the extremes Conference, University of Cambridge, UK. *"The evolutionary dynamics and the role of natural variations in the genetic architecture of hypoxia tolerance in experimentally evolved populations of Drosophila melanogaster."*
- 2012 The University of Chicago Annual Molecular Biosciences Retreat. Galena, IL. *"Adaptation to hypoxia is highly polygenic trait and involves genes in metabolic, developmental, and oxygen sensing pathways."*
- 2010 17th HIV Dynamics and Evolution, Monterey CA. *"HERV-K106 may be the youngest human endogenous retrovirus."*
- 2009 "Evolution: the Molecular Landscape" Cold Spring Harbor Laboratory's 74th Symposium celebrating Charles Darwin's bicentennial and 150th anniversary of the publication of The Origin of species, CSHL, NY. *"Variations in insertion frequencies and haplotypes of polymorphic HERV-K113 and HERV-K115 support "out of Africa" theory of human evolution and also indicate viral evolution post-insertion in the human genome."*

INVITED POSTER PRESENTATIONS

- 2014 American Society of Human Genetics Annual Meeting. San Diego, CA. *"Convergent mechanisms underlying hypoxia adaptation in Drosophila and Humans."*
- 2012 53rd Annual Drosophila Research Conference. Chicago, IL. *"Identifying 'soft sweeps' in egg size variation by re-sequencing experimentally evolved populations in Drosophila melanogaster."*
- 2011 University of Chicago Annual Molecular Biosciences Retreat. Galena, IL. *"Identifying positively selected genetic polymorphisms responsible for*

variation in egg size by re-sequencing experimentally evolved populations of Drosophila melanogaster.”

- 2009 Keystone Symposia: HIV Immunology: From Infection to Immune Control. Keystone, Co. *“Variations in insertion frequencies and haplotypes of polymorphic HERV K-113 and HERV K-115 in HIV-1 infected Americans.”*
- 2008 Keystone Joint Symposia on HIV Pathogenesis and HIV Vaccines. Banff, Canada. *“Suppression of HIV-1 plasma viral load below detection preserves IL-17 producing T cells in HIV-1 Infected Children.”*

PUBLIC AND PROFESSIONAL ACTIVITIES

- 2012 - 2014 Teaching Assistant, TA Training Class, The University of Chicago
- 2013 Volunteer, Society for Molecular Biology and Evolution Conference, Chicago, IL
- 2011 Visiting Student Instructor, Freshmen Honors Biology, Whitney Young Magnet High School, Chicago, IL
- 2009 General Secretary, Association of Nepalis in Americas 27th National Convention, San Francisco, CA.
- 2008-2009 National Coordinator, Association of Nepalis in Americas Sports Subcommittee.
- 2006 Student Instructor, Human Evolution (Decal), University of California Berkeley, CA
- 2006-2009 Founder/Manager, NANC Golden State Youth Basketball Team
- 2006-2008 General Secretary, Nepal Association of Northern California (NANC)
- 2003-2004 Student Trustee, San Mateo County Community College District, San Mateo, CA
- 2002-2003 Student Senator, College of San Mateo, San Mateo, CA
- 2000-2001 Editor-in-Chief, The Explorer, National School of Science and Technology, Kathmandu, Nepal

STUDENTS MENTORED

- | | | |
|-----------|-------------------|-----------------------|
| 2014 | Clara Kao | Undergraduate student |
| 2012 | Jessica Guitirrez | High school student |
| 2008 | Emily Storm | Undergraduate student |
| 2007-2008 | Douglas Wachter | High school student |