

Stanford



Aashish Jha

Postdoctoral Research Fellow, Biomedical Data Sciences

 Curriculum Vitae available Online

Bio

BIO

I am interested in using genetic diversity to understand human demographic and evolutionary processes in human populations. In the past, I have worked in immunology, virology, and my PhD dissertation was in using experimentally evolved *Drosophila melanogaster* to understand genetic basis of complex traits.

HONORS AND AWARDS

- Predoctoral Fellowship (T32), NIH (2012-2014)
- Undergraduate Recruitment Travel Award (55th Annual Drosophila Research Conference), Biological Sciences Division, The University of Chicago (2014)
- Undergraduate Recruitment Travel Award (ASHG), Biological Sciences Division, The University of Chicago, Chicago, IL (2014)
- Future of Science Fund, Keystone Symposia Travel Award (2013)
- PIRE Fellowship, Open Science Data Cloud, The University of Chicago, Chicago, IL (2011-2012)
- Travel Award, 17th International HIV Dynamics and Evolution Conference, Monterey, CA (2010)
- Symposium Fellow, Evolution: the Molecular Landscape, Cold Spring Harbor Laboratory's 74th Symposium (2009)
- R. Sternheim, Rodkey, and G. Douglass Scholarships,, University of California Berkeley (2004-2006)
- Allan R. Brown Outstanding Student Leadership Award, College of San Mateo, San Mateo, CA (2004)
- Student Services and Associated Students Scholarships, College of San Mateo, San Mateo, CA (2003-2004)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Chicago (2015)
- Bachelor of Arts, University of California Berkeley (2007)
- Associate of Arts, College Of San Mateo (2004)

STANFORD ADVISORS

- Carlos Bustamante, Postdoctoral Research Mentor

Publications

PUBLICATIONS

- **Gut microbiome transition across a lifestyle gradient in Himalaya.** *PLoS biology*
Jha, A. R., Davenport, E. R., Gautam, Y., Bhandari, D., Tandukar, S., Ng, K. M., Fragiadakis, G. K., Holmes, S., Gautam, G. P., Leach, J., Sherchand, J. B., Bustamante, C. D., Sonnenburg, et al
2018; 16 (11): e2005396

- **Shared Genetic Signals of Hypoxia Adaptation in Drosophila and in High-Altitude Human Populations** *MOLECULAR BIOLOGY AND EVOLUTION*
Jha, A. R., Zhou, D., Brown, C. D., Kreitman, M., Haddad, G. G., White, K. P.
2016; 33 (2): 501-517
- **Whole-Genome Resequencing of Experimental Populations Reveals Polygenic Basis of Egg-Size Variation in Drosophila melanogaster.** *Molecular biology and evolution*
Jha, A. R., Miles, C. M., Lippert, N. R., Brown, C. D., White, K. P., Kreitman, M.
2015; 32 (10): 2616-2632
- **Global diversity, population stratification, and selection of human copy-number variation** *SCIENCE*
Sudmant, P. H., Mallick, S., Nelson, B. J., Hormozdiari, F., Krumm, N., Huddleston, J., Coe, B. P., Baker, C., Nordenfelt, S., Bamshad, M., Jorde, L. B., Posukh, O. L., Sahakyan, et al
2015; 349 (6253): 1181-?
- **miR-9a Minimizes the Phenotypic Impact of Genomic Diversity by Buffering a Transcription Factor** *CELL*
Cassidy, J. J., Jha, A. R., Posadas, D. M., Giri, R., Venken, K. J., Ji, J., Jiang, H., Bellen, H. J., White, K. P., Carthew, R. W.
2013; 155 (7): 1556-1567
- **Associations between Antibodies to a Panel of Plasmodium falciparum Specific Antigens and Response to Sub-Optimal Antimalarial Therapy in Kampala, Uganda** *PLOS ONE*
Keh, C. E., Jha, A. R., Nzarubara, B., Lanar, D. E., Dutta, S., Theisen, M., Rosenthal, P. J., Dorsey, G., Nixon, D. F., Greenhouse, B.
2012; 7 (12)
- **Tim-3 marks human natural killer cell maturation and suppresses cell-mediated cytotoxicity** *14th International Congress of Immunology*
Ndhlovu, L. C., Lopez-Verges, S., Barbour, J. D., Jones, R. B., Jha, A. R., Long, B. R., Schoeffler, E. C., Fujita, T., Nixon, D. F., Lanier, L. L.
AMER SOC HEMATOLOGY.2012: 3734-43
- **An Aboriginal Australian Genome Reveals Separate Human Dispersals into Asia** *SCIENCE*
Rasmussen, M., Guo, X., Wang, Y., Lohmueller, K. E., Rasmussen, S., Albrechtsen, A., Skotte, L., Lindgreen, S., Metspalu, M., Jombart, T., Kivisild, T., Zhai, W., Eriksson, et al
2011; 334 (6052): 94-98
- **Human Endogenous Retrovirus K106 (HERV-K106) Was Infectious after the Emergence of Anatomically Modern Humans** *PLOS ONE*
Jha, A. R., Nixon, D. F., Rosenberg, M. G., Martin, J. N., Deeks, S. G., Hudson, R. R., Garrison, K. E., Pillai, S. K.
2011; 6 (5)
- **HTLV-1 Tax Specific CD8+ T Cells Express Low Levels of Tim-3 in HTLV-1 Infection: Implications for Progression to Neurological Complications** *PLOS NEGLECTED TROPICAL DISEASES*
Ndhlovu, L. C., Leal, F. E., Hasenkrug, A. M., Jha, A. R., Carvalho, K. I., Eccles-James, I. G., Bruno, F. R., Vieira, R. G., York, V. A., Chew, G. M., Jones, R. B., Tanaka, Y., Neto, et al
2011; 5 (4)
- **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** *JOURNAL OF CLINICAL IMMUNOLOGY*
Ndhlovu, L. C., Sinclair, E., Epling, L., Tan, Q. X., Ho, T., Jha, A. R., Eccles-James, I., Tincati, C., Levy, J. A., Nixon, D. F., Hecht, F. M., Barbour, J. D.
2010; 30 (5): 681-692
- **A novel human CD4(+) T-cell inducer subset with potent immunostimulatory properties** *EUROPEAN JOURNAL OF IMMUNOLOGY*
Ndhlovu, L. C., Leal, F. E., Eccles-James, I. G., Jha, A. R., Lanteri, M., Norris, P. J., Barbour, J. D., Wachter, D. J., Andersson, J., Tasken, K., Torheim, E. A., Aandahl, E. M., Kallas, et al
2010; 40 (1): 134-141
- **Lower numbers of circulating natural killer T (NK T) cells in individuals with human T lymphotropic virus type 1 (HTLV-1) associated neurological disease** *CLINICAL AND EXPERIMENTAL IMMUNOLOGY*
Ndhlovu, L. C., Snyder-Cappione, J. E., Carvalho, K. I., Leal, F. E., Loo, C. P., Bruno, F. R., Jha, A. R., DeVita, D., Hasenkrug, A. M., Barbosa, H. M., Segurado, A. C., Nixon, D. F., Murphy, et al
2009; 158 (3): 294-299
- **Cross-Sectional Dating of Novel Haplotypes of HERV-K 113 and HERV-K 115 Indicate These Proviruses Originated in Africa before Homo sapiens** *MOLECULAR BIOLOGY AND EVOLUTION*
Jha, A. R., Pillai, S. K., York, V. A., Sharp, E. R., Storm, E. C., Wachter, D. J., Martin, J. N., Deeks, S. G., Rosenberg, M. G., Nixon, D. F., Garrison, K. E.

2009; 26 (11): 2617-2626

- **Interleukin-10-secreting T cells define a suppressive subset within the HIV-1-specific T-cell population** *EUROPEAN JOURNAL OF IMMUNOLOGY*

Torheim, E. A., Ndhlovu, L. C., Frank, O. P., Larsen, T., Jha, A. R., Torgersen, K. M., Kvale, D., Nixon, D. F., Tasken, K., Aandahl, E. M.

2009; 39 (5): 1280-1287

- **Tim-3 expression defines a novel population of dysfunctional T cells with highly elevated frequencies in progressive HIV-1 infection** *JOURNAL OF EXPERIMENTAL MEDICINE*

Jones, R. B., Ndhlovu, L. C., Barbour, J. D., Sheth, P. M., Jha, A. R., Long, B. R., Wong, J. C., Satkunarajah, M., Schweneker, M., Chapman, J. M., Gyenes, G., Vali, B., Hycza, et al

2008; 205 (12): 2763-2779

- **Suppression of HIV-1 plasma viral load below detection preserves IL-17 producing T cells in HIV-1 infection** *AIDS*

Ndhlovu, L. C., Chapman, J. M., Jha, A. R., Snyder-Cappione, J. E., Pagan, M., Leal, F. E., Boland, B. S., Norris, P. J., Rosenberg, M. G., Nixon, D. F.

2008; 22 (8): 990-992

PRESENTATIONS

- Identification of shared adaptive genes in high altitude humans using experimentally evolved *Drosophila* populations. - Spring Quarter Seminar, Department of Physiology, University of California San Diego
- Signatures of polygenic adaptation from common natural variants in egg size evolution in experimentally evolved *Drosophila melanogaster*. - 55th Annual *Drosophila* Research Conference
- Convergent evolution of hypoxia adaptation in laboratory selected *Drosophila melanogaster* and in high altitude human populations. - Keystone Symposia: Sensing and Signaling of Hypoxia: Interfaces with Biology and Medicine
- Adaptation to hypoxia in experimentally evolved *Drosophila melanogaster*: convergent and highly polygenic. - 54th Annual *Drosophila* Research Conference
- The evolutionary dynamics and the role of natural variations in the genetic architecture of hypoxia tolerance in experimentally evolved populations of *Drosophila melanogaster*. - High Altitude and Cold: Adaptation to the extremes Conference
- "Adaptation to hypoxia is highly polygenic trait and involves genes in metabolic, developmental, and oxygen sensing pathways." - The University of Chicago Annual Molecular Biosciences Retreat
- "HERV-K106 may be the youngest human endogenous retrovirus." - 17th HIV Dynamics and Evolution
- Variations in insertion frequencies and haplotypes of polymorphic HERV-K113 and HERV-K115 support "out of Africa" theory of human evolution. - "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*