

Paul L. Maurizio

CONTACT INFORMATION	The University of Chicago Section of Genetic Medicine Knapp Center for Biomedical Discovery Chicago, Illinois 60637-1428	https://mauriziopaul.github.io maurizio@uchicago.edu (914) 610-3984
EDUCATION	<ul style="list-style-type: none"> □ Ph.D., University of North Carolina at Chapel Hill (UNC-CH) 2018 Curriculum in Bioinformatics & Computational Biology; Department of Genetics □ Sc.M., Johns Hopkins University (JHU) Bloomberg School of Public Health 2011 Department of Molecular Microbiology & Immunology Certificate in Vaccine Science & Policy; Dept. of International Health 2010 □ B.A., Swarthmore College 2005 Majors: Biochemistry; Religion 	
ACADEMIC POSITIONS HELD	<ul style="list-style-type: none"> □ University of Chicago, Department of Medicine, Section of Genetic Medicine (UChicago) 06/2020–Present <ul style="list-style-type: none"> • Postdoctoral Fellow Supervisor: Luis B. Barreiro, Ph.D. Research Areas: single-cell RNA-seq; mapping dynamic <i>M. tuberculosis</i> infection response eQTLs in human macrophages; immunogenomics; gene regulatory networks; social environmental effects on immune regulation • Postdoctoral Scholar □ Johns Hopkins University, Baltimore, MD 07/2011–06/2012 <ul style="list-style-type: none"> • Visiting Scholar, Bloomberg School of Public Health Department of Molecular Microbiology & Immunology Supervisor: Fidel Zavala, M.D. Research Areas: molecular parasitology; transgenesis; preclinical vaccine and adjuvant studies 	
GRADUATE RESEARCH	<ul style="list-style-type: none"> □ Graduate Research Assistant, UNC-CH 05/2013–05/2018 <ul style="list-style-type: none"> • Advisors: Mark T. Heise, Ph.D. & William Valdar, Ph.D. • Committee: Terrence S. Furey, Ph.D. (chair); Fernando Pardo-Manuel de Villena, Ph.D.; Ralph S. Baric, Ph.D.; Jeremy E. Purvis, Ph.D. □ Graduate Research Assistant (Rotations), UNC-CH 07/2012–05/2013 <ul style="list-style-type: none"> • Advisors: David M. Margolis, M.D.; Aravinda M. de Silva, Ph.D.; Kristina De Paris, Ph.D. □ Graduate Research Assistant, JHU 11/2009–05/2011 <ul style="list-style-type: none"> • Advisor: Douglas E. Norris, Ph.D. 	
GRANTS, FELLOWSHIPS & SCHOLARSHIPS	<ul style="list-style-type: none"> □ Awardee, NIH/NIAID LRP, Loan Repayment Program Recipient 2022–Present Research in Emerging Areas Critical to Human Health (L70) □ PI, NIH/NIA F32, Ruth L. Kirschstein National Research Service Award 2020–Present Sponsors: Luis B. Barreiro, Ph.D.; Matthew Stephens, Ph.D. (Statistics) Proposal: “Quantifying gene expression and network regulation in single cells to reveal the consequences of stress on the immune response” (#F32AG064883) □ PI, UChicago Pilot Grant, Department of Medicine 2019–Present Advisors: Luis B. Barreiro, Ph.D.; Patrick Wilson, Ph.D. (Rheumatology) Proposal: “Modeling the effects of social stress on cell-to-cell variation in the immune response to influenza vaccination” □ Fellow, NIH T32 Fellowship, Virology Training Grant, UNC-CH 2015–2016 □ Scholar, Master’s Tuition Scholarship, JHU 2010–2011 □ Fellow, Joshua Lippincott Fellowship, Swarthmore College 2009–2010 □ Fellow, NSF Summer REU in Prokaryotic Biology, University of Georgia 2004 Advisor: Juergen Wiegel, Ph.D., Department of Microbiology □ Fellow, NASA Astrobiology Summer Program, Penn State University 2003 Advisor: Hiroshi Ohmoto, Ph.D., Department of Geosciences 	

HONORS & AWARDS	❑ ISFS Associate , Intersections Science Fellows Symposium (ISFS)	11/2021
	❑ Award, Travel , 2 nd Annual Science Policy Symposium National Science Policy Network, NYC, NY	2018
	❑ Award, Travel , 2 nd Penn Symposium on Mathematical & Computational Biology (declined, unable to attend), Philadelphia, PA	2017
	❑ Award, Notable Poster , 1 st Annual Research Computing Symposium, UNC-CH	2014
	❑ Award, Student Membership , Tropical Medicine Dinner Club of Baltimore	2010 & 2011
	❑ Award, Blue Ribbon Poster , Johns Hopkins Global Health Day, JHU	2011
	❑ Award, Global Health Field Research , JHU Center for Global Health	2010
	❑ Award, Simpson Student Fund , Tropical Medicine Dinner Club of Baltimore	2010
	❑ Deans' Award , Swarthmore College	2005
PEER-REVIEWED PUBLICATIONS	Grieshop K, Maurizio PL , Arnqvist G and Berger D. 2021 . Selection in males purges the mutation load on female fitness. <i>Evol Letters</i> . 5(4):328-343. doi: 10.1002/evl3.239. PMID: 34367659.	
	Sanz J, Maurizio PL , Snyder-Mackler N, Simons ND, Voyles T, Kohn J, Michopoulos V, Wilson M, Tung J and Barreiro LB. 2020 . Social history and exposure to pathogen signals modulate social status effects on gene regulation in rhesus macaques. <i>Proc Natl Acad Sci USA</i> . 117(38):23317-22. doi: 10.1073/pnas.1820846116. PMID:31611381.	
	Maurizio PL [†] , Fuseini H, Tegha G, Hosseinipour M and De Paris K. 2019 . Signatures of divergent anti-malarial treatment responses in peripheral blood from adults and young children in Malawi. <i>Malaria J</i> . 18(1):205. doi: 10.1186/s12936-019-2842-7. PMID:31234875. ([†] = corresp. author)	
	Shorter JR*, Maurizio PL *, Bell TA, Shaw GD, Miller DR, Gooch TJ, Spence JS, McMillan L, Valdar W and Pardo-Manuel de Villena F. 2019 . A diallel of the mouse Collaborative Cross founders reveals strong strain-specific maternal effects on litter size. <i>G3: Genes, Genomes, Genetics</i> . 9(5):1613-1622. doi: 10.1534/g3.118.200847. PMID:30877080. (* = equal contribution)	
	Maurizio PL , Ferris MT, Keele GR, Miller DR, Shaw GD, Whitmore AC, West A, Morrison CR, Noll KE, Plante KS, Cockrell AS, Threadgill DW, Pardo-Manuel de Villena F, Baric RS, Heise MT and Valdar W. 2018 . Bayesian diallel analysis reveals <i>Mx1</i> -dependent and <i>Mx1</i> -independent effects on response to influenza A virus in mice. <i>G3: Genes, Genomes, Genetics</i> . 8(2): 427-445. doi: 10.1534/g3.117.300438. PMID:29187420.	
	Turner SD, Maurizio PL , Valdar W, Yandell BS and Simon PW. Dissecting the genetic architecture of shoot growth in carrot (<i>Daucus carota</i> L.) using a diallel mating design. 2018 . <i>G3: Genes, Genomes, Genetics</i> . 8(2): 411-426. doi: 10.1534/g3.117.300235. PMID:29187419.	
	Espinosa DA, Yadava A, Angov E, Maurizio PL , Ockenhouse CF and Zavala F. 2013 . Development of a chimeric <i>Plasmodium berghei</i> strain expressing the repeat region of the <i>P. vivax</i> circumsporozoite protein for in vivo evaluation of vaccine efficacy. <i>Infection and Immunity</i> . 81(8):2882-2887. doi: 10.1128/IAI.00461-13. PMID:23716612.	
	Walsh MC, Kim GK, Maurizio PL , Molnar EE and Choi Y. 2008 . TRAF6 auto-ubiquitination-independent activation of the NF κ B and MAPK pathways in response to IL-1 and RANKL. <i>PLoS One</i> . 3(12):e4064. doi: 10.1371/journal.pone.0004064. PMID:19112497.	

Parrett JM, Lukasiewicz A, Chmielewski S, Szubert-Kruszynska A, **Maurizio PL**, Grieshop K and Radwan J. A sexually-selected male weapon characterised by strong additive genetic variance and no evidence for sexually antagonistic polyphenic maintenance. (*manuscript under review*, 08/2022)

Maurizio PL, Aguirre-Gamboa R, Sanz J, Giraud-Gatineau A, Randolph HE, Von Platen C, Loulergue P, Launay O, Yotova V, Dumaine A, Brosch R, Tailleux L* and Barreiro LB*. **2022**. Dynamic genetic control of the gene expression response to *Mycobacterium tuberculosis* infection in human macrophages. *Biology of Genomes*, May 10th–14th. (*abstract*; * co-senior)

Hampton BK, Jensen KL, Whitmore AC, Gralinski LE, Leist SR, Linnertz CL, **Maurizio P**, Menachery VD, Morrison CR, Noll KE, Plante KS, Shaefer A, Shaw GD, West A, Pardo-Manuel de Villena F, Baric RS, Heise MT and Ferris MT. **2021**. Genetic regulation of immune homeostatic lung leukocyte populations influences respiratory virus induced disease in collaborative cross mice. *J Immunol.* 206(Supplement 1):24.05-24.05. (*abstract*)

Campbell CR, **Maurizio PL**, Simons ND, Batista J, Voyles T, Cobb M, Dumaine A, Michopoulos V, Barreiro L and Tung J. **2021**. Social behavioral control of cell-to-cell gene expression variance in rhesus macaque immune cells. *Biology of Genomes*, May 11th–14th. (*abstract*)

Hampton BK, Jensen KL, Whitmore AC, Linnertz CL, **Maurizio P**, Miller DR, Morrison CR, Noll KE, Plante KS, Shaw GD, West A, Baric RS, Pardo-Manuel de Villena F, Heise MT and Ferris MT. **2021**. Genetic regulation of homeostatic immune architecture in the lungs of Collaborative Cross mice. *bioRxiv* 2021.04.09.439180. doi: 10.1101/2021.04.09.439180. (*preprint* 2021-04-10)

Lee J, Strattan JS, Kagda M and **Maurizio P**. **2020**. ENCODE-DCC/chip-seq-pipeline2: Zenodo integration for citation purposes (v1.5.2). Zenodo. doi: 10.5281/zenodo.3978629. (*software contribution*)

Simons ND, **Maurizio PL**, Batista J, Michopoulos V, Barreiro LB and Tung J. **2020**. Parallel gene regulatory signatures of social stress and aging in rhesus macaques. 289th Annual Meeting of the American Association of Physical Anthropologists, April 15th–18th. (*abstract*)

Keele GR, **Maurizio PL**, Oreper D and Valdar W. **2018**. Bayesian decision theoretic design of two-founder experimental crosses given diallel data. *bioRxiv* 489682. doi: 10.1101/489682. (*working paper* 2018-10-07)

Maurizio PL. **2018**. Modeling the Host Genetic Determinants of Influenza Virus Pathogenesis in Mice. Doctor of Philosophy (Ph.D.) Dissertation. University of North Carolina at Chapel Hill. 270 pp. (*dissertation*)

Maurizio PL and Ferris MT. **2017**. “The Collaborative Cross Resource for Systems Genetics Research of Infectious Diseases.” *Methods in Molecular Biology: Systems Genetics - Methods and Protocols*. Springer/Humana Press: New York, NY. Editors: Klaus Schughart, Robert Williams. doi: 10.1007/978-1-4939-6427-7_28. PMID:27933545. (*chapter*)

Maurizio PL. **2011**. Detection and vertical transmission of *Culex* flavivirus in *Culex quinquefasciatus* (Diptera: Culicidae) mosquitoes from Zambia, Africa. Master of Science (Sc.M.) thesis. Johns Hopkins University. 127 pp. (*thesis*)

Kendall GC, Mokhonova E, Moran M, **Maurizio P**, Spencer M, Nelson S, Miceli MC. **2010**. High throughput screening for the identification of small molecules that modulate exon

skipping on the *DMD* gene. Ottawa Conference on New Directions in Biology and Disease of Skeletal Muscle, Ottawa, Canada, May 5th-8th. (*abstract*)

Mesbah NM, **Maurizio P**, Zhang CL, Romanek CS, Mills G and Wiegel J. **2005**. Isolation of halophilic thermophilic '*Caloramator halophilus*' sp. nov. from salt flats of Northern Nevada. American Society for Microbiology 105th General Meeting. Atlanta, GA, June 5th-9th. (*abstract*)

ADDITIONAL PROFESSIONAL EXPERIENCE	<input type="checkbox"/> Staff Research Associate , University of California, Los Angeles, CA Department of Microbiology, Immunology & Molecular Genetics Supervisor: M. Carrie Miceli, Ph.D.	10/2007–07/2009
	<input type="checkbox"/> Research Specialist , University of Pennsylvania, Philadelphia, PA Department of Pathology & Laboratory Medicine Supervisor: Yongwon Choi, Ph.D.	10/2005–09/2007
	<input type="checkbox"/> Ecological Field Assistant , Grand Canyon Trust, Flagstaff, AZ	05/2005–07/2005
CONFERENCE PRESENTATIONS (SELECTED)	<input type="checkbox"/> Poster Presenter , Biology of Genomes, Cold Spring Harbor, NY “Dynamic genetic control of the gene expression response to <i>Mycobacterium tuberculosis</i> infection in human macrophages”	05/2022
	<input type="checkbox"/> Flash Talk , Intersections Science Fellows Symposium, virtual “Uncovering cell-type-specific effects of social stress on the immune response in macaques”	11/2021
	<input type="checkbox"/> Oral Presenter , Division of Aging Biology New Investigators Forum, NIH/NIA “Uncovering cell-type-specific effects of social stress on the immune response”	07/2021
	<input type="checkbox"/> Oral Presenter , 15 th Complex Trait Community Meeting: Memphis, TN Presentation Award , “Diallel analysis reveals <i>Mx1</i> -dependent and independent effects driving influenza virus severity”	06/2017
	<input type="checkbox"/> Poster Presenter , Gordon Research Conference: Lucca (Barga), Italy Quantitative Genetics & Genomics; “Characterization of parent-of-origin effects on host response to influenza A virus in reciprocal cross mice.”	02/2015
	<input type="checkbox"/> Oral Presenter , Southeastern Regional Virology Conference: Atlanta, GA. “Influenza infections in a diallel cross of mice reveal parent-of-origin effects influencing viral pathogenesis”	04/2014
	<input type="checkbox"/> Poster Presenter , Entomological Society of America Eastern Branch 82nd Annual Meeting: Harrisburg, PA. Presentation Award	03/2011
CAMPUS PRESENTATIONS (SELECTED)	<input type="checkbox"/> Panelist , Sharing of Diverse Perspectives: Postdoc Edition, UChicago Graduate Recruitment Initiative Team	05/2021
	<input type="checkbox"/> Presenter , Committee on Immunology Work-in-Progress, UChicago	05/2021
	<input type="checkbox"/> Panelist , PDA Seminar on Postdoc Fellowships, UChicago	02/2021
	<input type="checkbox"/> Presenter , Department of Human Genetics Work-in-Progress, UChicago	11/2019
	<input type="checkbox"/> Keynote Speaker , Midwest FLI Summit, UChicago Invited by Socioeconomic Diversity Alliance to present my first-gen experience	04/2019
	<input type="checkbox"/> Panelist , Carolina Grad Student Firsts, UNC-CH and Duke University Volunteered on three speaker panels for first-gen undergraduates	01/2018–04/2018
TEACHING & MENTORSHIP	<input type="checkbox"/> Champion Mentor , First-Generation, Low-Income, Immigrant (FLI) Network • Dang Nguyen, 1st year undergraduate; Majors: Comp Sci/Math • Christian Porras, Present: M.D./Ph.D. student at Mt. Sinai MSTP	2020–Present 2018–2020
	<input type="checkbox"/> Guest Speaker , Skype-A-Scientist • Ericson Elementary, 5 th grade, San Diego, CA	11/2021
	• The Liberi School, 7 th grade, Hudson, NY	02/2021
	• Leitch Elementary, 2 nd grade, Fremont, CA	11/2020

	<ul style="list-style-type: none"> ❑ Coding Instructor, Introduction to R, How to Learn to Code, UNC-CH 2016 https://bit.ly/IntroToR-HTLTTC ❑ Coding Helper, Software Carpentry Workshop (Git, SQL), UNC-CH 2016 ❑ Teaching Assistant, Foundations in Population Genomics, BCB 722, UNC-CH 2014 ❑ Teaching Assistant, Global TEFL Network, Zhejiang University, Hangzhou, China 2007 ❑ Teaching Assistant, Biological Chemistry Laboratory, CHEM 038, Swarthmore 2004
PROFESSIONAL DEVELOPMENT	<ul style="list-style-type: none"> ❑ Selected Participant, Grant Writing Coaching Groups 2021–2022 The Leadership Alliance ❑ Selected Participant, University of Pittsburgh Study 2020–2022 Building up a diverse pipeline for the biomedical research workforce ❑ Participant, Academic Job Market Working Groups, UChicagoGRAD 08/2021–09/2021 ❑ Selected Participant, <i>GENETICS</i> Peer Review Training Program 2018–2020 ❑ Attendee, The Allied Genetics Conference 2020 (TAGC), April 22nd-25th, online 2020 ❑ Attendee, The Genetics of Human Disease, Cell Press Symposium, Chicago, IL 2019 ❑ Participant, Scientific Writing from the Reader's Perspective Workshop, UNC-CH 2017 ❑ Participant, Rigor & Reproducibility Workshop, UNC-CH 2016 ❑ Student, Systems Genetics Course, The Jackson Lab, Bar Harbor, ME 2014 ❑ Participant, Next Generation Sequencing Workshop, UNC-CH 2014
PEER-REVIEW	<ul style="list-style-type: none"> ❑ Reviewer, <i>Heredity</i> (Genetics Society) 2022–Present ❑ Reviewer, <i>Microbiology Spectrum</i> (American Society for Microbiology) 2021–Present ❑ Reviewer, <i>Journal of Virology</i> (American Society for Microbiology) 2020–Present ❑ Reviewer, <i>Database</i> (Oxford University Press) 2019–Present ❑ Reviewer, <i>Genetics</i> (Genetics Society of America) 2018–Present ❑ Reviewer, UChicago BSD Career Advancement for Postdocs Travel Awards 2021
SERVICE & OUTREACH	<ul style="list-style-type: none"> ❑ Volunteer, UChicago-DuSable Museum of African American History Collab. 08/2021–Present ❑ Co-founder, Pan-Asian Resource Group, UChicago 03/2021–Present ❑ Co-founder, Pan-Asian Coalition, Biological Sciences Division, UChicago 03/2021–Present ❑ Member, Committee on Immunology DEI Committee, UChicago 03/2021–Present ❑ Member, Postdoctoral Association (PDA) Steering Committee, UChicago 11/2020–Present • Chair, Policy Committee; Co-organizer, Fellowship Writing Accountability Group ❑ Presentation Judge, Chicago EYES on Cancer/Diversity Research Symposium 08/2021 ❑ Board of Directors, Universities Allied for Essential Medicines, 501(c)(3) 10/2015–10/2019 ❑ Session Chair, Virology Colloquium, UNC-Chapel Hill, Chapel Hill, NC 10/2015 ❑ Session Chair, Evolution 2014 Conference, Raleigh, NC 06/2014 ❑ Peer Mentor, 1st-Year Group, Biol. & Biomed. Sci. Program, UNC-CH 09/2013–12/2013 ❑ Guest Blogger, 12th Annual World Vaccine Congress, National Harbor, MD 04/2012 ❑ HIV Tester & Counselor, Institute for Human Virology, Baltimore, MD 07/2010–01/2012 ❑ Tutor, Health Professions Recruitment and Exposure Program, JHU 01/2010–03/2010
QUANTITATIVE SKILLS & TRAINING	<ul style="list-style-type: none"> ❑ Programming, Computing & Statistics: Python, R, RStudio, SQL, Matlab, Mathematica, JAGS, BUGS, Stan, bash, git, STATA, MCMCglmm ❑ Graduate Courses Taken in Quantitative Methods: Bayesian Statistics, Databases, Mathematical Modeling, Sequence Analysis, Infectious Disease Dynamics, Introduction to Statistical Modeling, Statistical Methods in Public Health, Structural Bioinformatics, Topics in Computer Science: Computational Genetics, Topics in Population Genetics