

## Paul L. Maurizio

CONTACT INFORMATION	The University of Chicago Section of Genetic Medicine Knapp Center for Biomedical Discovery Chicago, Illinois 60637-1428	<a href="https://mauriziopaul.github.io">https://mauriziopaul.github.io</a> <a href="mailto:maurizio@uchicago.edu">maurizio@uchicago.edu</a> (914) 610-3984
EDUCATION	<ul style="list-style-type: none"> <li>❑ <b>Ph.D.</b>, University of North Carolina at Chapel Hill (UNC-CH) 2018 Bioinformatics &amp; Computational Biology Dissertation: “Modeling the host genetic determinants of influenza virus pathogenesis in mice”</li> <li>❑ <b>Sc.M.</b>, Johns Hopkins University (JHU) Bloomberg School of Public Health 2011 Molecular Microbiology &amp; Immunology Thesis: “Detection and vertical transmission of <i>Culex</i> flavivirus in <i>Culex quinquefasciatus</i> (Diptera: Culicidae) mosquitoes from Zambia, Africa” Certificate in Vaccine Science &amp; Policy, Dept. of International Health 2010</li> <li>❑ <b>B.A.</b>, Swarthmore College 2005 Majors: Biochemistry; Religion</li> </ul>	
ACADEMIC POSITIONS HELD	<ul style="list-style-type: none"> <li>❑ <b>Postdoctoral Scholar/Fellow</b>, University of Chicago (UChicago) 08/2018–Present Department of Medicine, Section of Genetic Medicine Supervisor: Luis B. Barreiro, Ph.D.</li> <li>❑ <b>Visiting Scholar</b>, Johns Hopkins University, Baltimore, MD 07/2011–06/2012 Bloomberg School of Public Health, Department of Molecular Microbiology &amp; Immunology Supervisor: Fidel Zavala, M.D.</li> </ul>	
GRADUATE RESEARCH	<ul style="list-style-type: none"> <li>❑ <b>Graduate Research Assistant</b>, UNC-CH 05/2013–05/2018 <ul style="list-style-type: none"> <li>• Advisors: Mark T. Heise, Ph.D. &amp; William Valdar, Ph.D.</li> <li>• Committee: Terrence S. Furey, Ph.D. (chair); Fernando Pardo-Manuel de Villena, Ph.D.; Ralph S. Baric, Ph.D.; Jeremy E. Purvis, Ph.D.</li> </ul> </li> <li>❑ <b>Graduate Research Assistant</b> (Rotations), UNC-CH 07/2012–05/2013 <ul style="list-style-type: none"> <li>• Advisors: David M. Margolis, M.D.; Aravinda M. de Silva, Ph.D.; Kristina De Paris, Ph.D.</li> </ul> </li> <li>❑ <b>Graduate Research Assistant</b>, JHU 11/2009–05/2011 <ul style="list-style-type: none"> <li>• Advisor: Douglas E. Norris, Ph.D.</li> </ul> </li> </ul>	
GRANTS, FELLOWSHIPS & SCHOLARSHIPS	<ul style="list-style-type: none"> <li>❑ <b>PI, NIH/NIA F32</b>, 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)</li> <li>❑ <b>PI, UChicago Pilot Grant</b>, 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”</li> <li>❑ <b>Fellow, NIH T32 Fellowship</b>, Virology Training Grant, UNC-CH 2015–2016</li> <li>❑ <b>Scholar, Master’s Tuition Scholarship</b>, JHU 2010–2011</li> <li>❑ <b>Fellow, Joshua Lippincott Fellowship</b>, Swarthmore College 2009–2010</li> <li>❑ <b>Fellow, NSF Summer REU in Prokaryotic Biology</b>, University of Georgia 2004 Advisor: Juergen Wiegel, Ph.D., Department of Microbiology</li> <li>❑ <b>Fellow, NASA Astrobiology Summer Program</b>, Penn State University 2003 Advisor: Hiroshi Ohmoto, Ph.D., Department of Geosciences</li> </ul>	

HONORS & AWARDS	❑ <b>Award, Travel</b> , 2 <sup>nd</sup> Annual Science Policy Symposium National Science Policy Network, NYC, NY	2018
	❑ <b>Award, Travel</b> , 2 <sup>nd</sup> Penn Symposium on Mathematical & Computational Biology ( <i>declined, unable to attend</i> ), Philadelphia, PA	2017
	❑ <b>Award, Notable Poster</b> , 1 <sup>st</sup> Annual Research Computing Symposium, UNC-CH	2014
	❑ <b>Award, Student Membership</b> , Tropical Medicine Dinner Club of Baltimore	2010 & 2011
	❑ <b>Award, Blue Ribbon Poster</b> , Johns Hopkins Global Health Day, JHU	2011
	❑ <b>Award, Global Health Field Research</b> , JHU Center for Global Health	2010
	❑ <b>Award, Simpson Student Fund</b> , Tropical Medicine Dinner Club of Baltimore	2010
	❑ <b>Deans' Award</b> , Swarthmore College	2005
PEER-REVIEWED PUBLICATIONS	Grieshop K, <b>Maurizio PL</b> , Arnqvist G and Berger D. <b>2021</b> . 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, <b>Maurizio PL</b> , Snyder-Mackler N, Simons ND, Voyles T, Kohn J, Michopoulos V, Wilson M, Tung J and Barreiro LB. <b>2020</b> . 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.	
	<b>Maurizio PL</b> <sup>†</sup> , Fuseini H, Tegha G, Hosseinipour M and De Paris K. <b>2019</b> . 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. ( <sup>†</sup> = corresp. author)	
	Shorter JR*, <b>Maurizio PL</b> *, Bell TA, Shaw GD, Miller DR, Gooch TJ, Spence JS, McMillan L, Valdar W and Pardo-Manuel de Villena F. <b>2019</b> . 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)	
	<b>Maurizio PL</b> , 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. <b>2018</b> . 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, <b>Maurizio PL</b> , 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. <b>2018</b> . <i>G3: Genes, Genomes, Genetics</i> . 8(2): 411-426. doi: 10.1534/g3.117.300235. PMID:29187419.	
	Espinosa DA, Yadava A, Angov E, <b>Maurizio PL</b> , Ockenhouse CF and Zavala F. <b>2013</b> . 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, <b>Maurizio PL</b> , Molnar EE and Choi Y. <b>2008</b> . TRAF6 auto-ubiquitination-independent activation of the NF $\kappa$ 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.	

ABSTRACTS,  
CHAPTER, &  
PREPRINTS  
(SELECTED)

Hampton BK, Jensen KL, Whitmore AC, Gralinski LE, Leist SR, Linnertz CL, **Maurizio P**, Menachery VD, Morrison CR, Noll KE, Plante KS, Schäfer 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.

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 11<sup>th</sup>–14<sup>th</sup>. (*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. 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)

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. 289<sup>th</sup> Annual Meeting of the American Association of Physical Anthropologists, April 15<sup>th</sup>–18<sup>th</sup>. (*abstract*)

Keele GR, **Maurizio PL**, Oreper D and Valdar W. 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** 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*)

ADDITIONAL  
PROFESSIONAL  
EXPERIENCE

- ❑ **Staff Research Associate**, University of California, Los Angeles, CA 10/2007–07/2009  
Department of Microbiology, Immunology & Molecular Genetics  
Supervisor: M. Carrie Miceli, Ph.D.
- ❑ **Research Specialist**, University of Pennsylvania, Philadelphia, PA 10/2005–09/2007  
Department of Pathology & Laboratory Medicine  
Supervisor: Yongwon Choi, Ph.D.
- ❑ **Ecological Field Assistant**, Grand Canyon Trust, Flagstaff, AZ 05/2005–07/2005

CONFERENCE  
PRESENTATIONS  
(SELECTED)

- ❑ **Oral Presenter**, Division of Aging Biology New Investigators Forum, NIH/NIA 07/2021  
“Uncovering cell-type-specific effects of social stress on the immune response”
- ❑ **Oral Presenter**, 15<sup>th</sup> Complex Trait Community Meeting: Memphis, TN 06/2017  
**Presentation Award**, “Diallel analysis reveals *Mx1*-dependent and independent effects driving influenza virus severity”
- ❑ **Poster Presenter**, Gordon Research Conference: Lucca (Barga), Italy 02/2015  
Quantitative Genetics & Genomics; “Characterization of parent-of-origin effects on host response to influenza A virus in reciprocal cross mice.”
- ❑ **Oral Presenter**, Southeastern Regional Virology Conference: Atlanta, GA. 04/2014  
“Influenza infections in a diallel cross of mice reveal parent-of-origin effects influencing viral pathogenesis”
- ❑ **Poster Presenter**, Entomological Society of America Eastern Branch 03/2011  
82nd Annual Meeting: Harrisburg, PA.  
**Presentation Award**, “Detection and characterization of *Culex* flavivirus transmission in Zambian *Culex quinquefasciatus* mosquitoes”

CAMPUS PRESENTATIONS (SELECTED)	❑ <b>Panelist</b> , Sharing of Diverse Perspectives: Postdoc Edition, UChicago Graduate Recruitment Initiative Team	05/2021
	❑ <b>Presenter</b> , Committee on Immunology Work-in-Progress, UChicago	05/2021
	❑ <b>Panelist</b> , PDA Seminar on Postdoc Fellowships, UChicago	02/2021
	❑ <b>Presenter</b> , Department of Human Genetics Work-in-Progress, UChicago	11/2019
	❑ <b>Keynote Speaker</b> , Midwest FLI Summit, UChicago Invited by Socioeconomic Diversity Alliance to present my first-gen experience	04/2019
	❑ <b>Panelist</b> , Carolina Grad Student Firsts, UNC-CH and Duke University Volunteered on 3 speaker panels for first-gen undergraduates	01/2018–04/2018
TEACHING & MENTORSHIP	❑ <b>Champion Mentor</b> , First-Generation, Low-Income, Immigrant (FLI) Network	
	• Dang Nguyen, 1st year undergraduate; Majors: Comp Sci/Math	2020–Present
	• Christian Porras, Present: M.D./Ph.D. student at Mt. Sinai MSTP	2018–2020
	❑ <b>Guest Teacher</b> , Skype-A-Scientist	
	• The Liberi School, 7th grade, Hudson, NY	02/2021
	• Leitch Elementary, 2nd grade, Fremont, CA	11/2020
	❑ <b>Coding Instructor</b> , Introduction to R, How to Learn to Code, UNC-CH <a href="https://bit.ly/IntroToR-HTLTC">https://bit.ly/IntroToR-HTLTC</a>	2016
	❑ <b>Coding Helper</b> , Software Carpentry Workshop (Git, SQL), UNC-CH	2016
PROFESSIONAL DEVELOPMENT	❑ <b>Selected Participant</b> , <i>GENETICS</i> Peer Review Training Program	2018–2020
	❑ <b>Attendee</b> , The Allied Genetics Conference 2020 (TAGC), April 22 <sup>nd</sup> –25 <sup>th</sup> , online	2020
	❑ <b>Attendee</b> , The Genetics of Human Disease, Cell Press Symposium, Chicago, IL	2019
	❑ <b>Participant</b> , Scientific Writing from the Reader's Perspective Workshop, UNC-CH	2017
	❑ <b>Participant</b> , Rigor & Reproducibility Workshop, UNC-CH	2016
	❑ <b>Student</b> , Systems Genetics Course, The Jackson Lab, Bar Harbor, ME	2014
	❑ <b>Participant</b> , Next Generation Sequencing Workshop, UNC-CH	2014
	❑ <b>Participant</b> , Academic Job Market Working Groups, UChicagoGRAD	08/2021–09/2021
SERVICE & OUTREACH	❑ <b>Volunteer</b> , UChicago-DuSable Museum of African American History Collab.	08/2021–Present
	❑ <b>Co-founder</b> , Pan-Asian Resource Group, UChicago	03/2021–Present
	❑ <b>Co-founder</b> , Pan-Asian Coalition, Biological Sciences Division, UChicago	03/2021–Present
	❑ <b>Member</b> , Committee on Immunology DEI Committee, UChicago	03/2021–Present
	❑ <b>Member</b> , Postdoctoral Association (PDA) Steering Committee, UChicago	11/2020–Present
	• <b>Chair</b> , Policy Committee; <b>Co-organizer</b> , Fellowship Writing Accountability Group	
	❑ <b>Presentation Judge</b> , Chicago EYES on Cancer/Diversity Research Symposium	08/2021
	❑ <b>Board of Directors</b> , Universities Allied for Essential Medicines, 501(c)(3)	10/2015–10/2019
	❑ <b>Session Chair</b> , Virology Colloquium, UNC-Chapel Hill, Chapel Hill, NC	10/2015
	❑ <b>Session Chair</b> , Evolution 2014 Conference, Raleigh, NC	06/2014
	❑ <b>Peer Mentor</b> , 1 <sup>st</sup> -Year Group, Biol. & Biomed. Sci. Program, UNC-CH	09/2013–12/2013
	❑ <b>Guest Blogger</b> , 12 <sup>th</sup> Annual World Vaccine Congress, National Harbor, MD	04/2012
	❑ <b>HIV Tester &amp; Counselor</b> , Institute for Human Virology, Baltimore, MD	07/2010–01/2012
QUANTITATIVE SKILLS & TRAINING	❑ <b>Programming, Computing &amp; Statistics</b> : Python, R, RStudio, SQL, Matlab, Mathematica, JAGS, BUGS, Stan, bash, git, STATA, MCMCglmm	
	❑ <b>Graduate Courses Taken in Quantitative Methods</b> : 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	