

Marla C Glass, PhD

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**Stanford Immunology
Department of Surgery
Stanford University School of Medicine**

Transplant Immunology Lab

1201 Welch Road MC 5492

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EDUCATION

2010 – 2016 University of California Davis

Doctor of Philosophy in Integrative Genetics and Genomics

Current GPA: 3.8

Dissertation Title: The Impact of Marek's Disease Herpesvirus Interactions with the Host Genome on Disease Incidence, Pathogenesis and Oncogenesis

Major Professor: Mary E. Delany, Ph.D.

2006 – 2010 University of Connecticut

Bachelor of Science in Biological Sciences

Molecular & Cellular Biology minor

GPA: 3.5, Biological Science GPA: 3.9

RESEARCH EXPERIENCE

2017 – **Stanford University School of Medicine, Department of Surgery
Immunology Program**

Postdoctoral Research Fellow

My primary research focus is on regulatory immune cell phenotypes in organ transplant recipients. I'm applying high-dimensional single cell proteomics to identify the immune cell types that affect development of and outcomes in Epstein Barr Virus-associated B cell lymphomas in transplant recipients.

2010 – 2016 University of California Davis, Integrative Genetics & Genomics

Graduate Student Researcher

I utilized cytogenetic and molecular genetic approaches to study *in vivo* avian herpesvirus-host genomic interactions. These interactions were investigated in the setting of vaccination as well as viral pathogenesis and oncogenesis with specific virus serotypes and host genetic backgrounds.

2009 – 2010 University of Connecticut Health Center, Department of Surgery

Clinical Academic Assistant

I analyzed neurosurgical research datasets, primarily on restorative neurosurgery, for grant proposal development and experimental design. I also gained hands-on experience with *in vivo* model research and deep brain stimulation studies.

HONORS, FELLOWSHIPS AND AWARDS

Stanford University School of Medicine

2017-19 **Immunology Training Grant Postdoctoral Fellowship**, NIH NRSA and Stanford Immunology

University of California Davis

- 2015 **Best Presentation in Biological Sciences**, Interdisciplinary Graduate and Professional Symposium
Best Overall Research Poster, Integrative Genetics and Genomics Annual Meeting and Colloquium
Henry A. Jastro Graduate Research Scholarship Award
- 2014 **1st Place People's Choice Poster Award**, Interdisciplinary Graduate and Professional Student Symposium
Floyd and Mary Schwall Dissertation Year Fellowship in Medical Research
Rosenberg Graduate Student Researcher Award, Animal Science Department
- 2013 **Austin Eugene Lyons Fellowship in Genetics**
Henry A. Jastro Graduate Research Scholarship Award
- 2012 **Ed F. Olivera, Sr. Memorial Award**, Animal Science Department
UC Davis Foundation Fellowship, Animal Science Department
Henry A. Jastro Graduate Research Scholarship Award
- 2011 **Hart, Cole and Goss Summer Research Fellowship**, Animal Science Department

PUBLICATIONS

Sang AX, **McPherson* MC**, Ivison GT, Qu X, Rigdon J, Esquivel CO, Krams SM, Martinez OM. Dual blockade of the PI3K/Akt/mTOR pathway inhibits posttransplant Epstein-Barr virus B cell lymphomas and promotes allograft survival. *Am J Transplant.* **2019** May;19(5):1305-1314.

McPherson* MC, Cheng HH, Smith JM, Delany ME. Vaccination and Host Marek's Disease-Resistance Genotype Significantly Reduce Oncogenic Gallid alphaherpesvirus 2 Telomere Integration in Host Birds. *Cytogenet Genome Res.* **2018**;156(4):204-214.

McPherson* MC, Cheng HH, Delany ME. Marek's disease herpesvirus vaccines integrate into chicken host chromosomes yet lack a virus-host phenotype associated with oncogenic transformation. *Vaccine.* **2016**; 34: 5554-61.

McPherson* MC, Delany ME. Virus and host genomic, molecular, and cellular interactions during Marek's disease pathogenesis and oncogenesis (Review). *Poult Sci.* **2016** Feb; 95 (2): 412-29.

McPherson* MC, Robinson CM, Delany ME. Host-viral genome interactions in Marek's disease (Review). Third Report on Chicken Genes and Chromosomes. *Cytogenet Genome Res.* **2015** Aug; 145: 78-179.

McPherson* MC, Robinson CM, Gehlen LP, Delany ME. Comparative cytogenomics of poultry: mapping of single gene and repeat loci in the Japanese quail (*Coturnix japonica*). *Chromosome Res.* **2014** Apr; 22 (1): 71-83.

* Last name changed to Glass from McPherson in 2019

M Glass

PRESENTATIONS AND PUBLIC APPEARANCES

27th International Congress of The Transplantation Society (Madrid, Spain)

Presented: McPherson MC, Balachandran Y, Boyd SD, Zimmermann H, Trappe RU, Esquivel CO, Krams SM, Martinez OM. (2018) Genomic status of the Epstein Barr Virus and Virus-Associated PI3K/Akt/mTOR Pathway Dysregulation in Post-Transplant Lymphoproliferative Disorder.

Stanford Immunology Annual Scientific Conference (Pacific Grove, California)

Presented: McPherson MC, Martinez OM. (2018) Epstein Barr Virus DNA integration in B cell lymphomas.

Presented: McPherson MC, Krams SM, Martinez OM. (2017) Genomic modifications associated with Epstein Barr Virus+ post-transplant lymphoproliferative disorder.

UC Davis Interdisciplinary Graduate and Professional Student Symposium (Davis, California)

Presented: McPherson MC, Cheng HH, Delany ME. (2014, 2015). Understanding the First Effective Vaccination against a Cancer: Interactions of Marek's Disease Virus and Vaccines with the Host Genome.

International Avian Immunology Research Group (AIRG) Meeting (Guelph, Canada)

10th International Symposium on Avian Herpesviruses (East Lansing, Michigan)

Presented: McPherson MC, Cheng HH, Delany ME. (2014). Characterization of Marek's Disease Vaccines Chromosomal Integration and Association Profiles.

Plant and Animal Genome Conference XX (San Diego, California)

UC Davis Interdisciplinary Graduate and Professional Student Symposium (Davis, California)

Presented: McPherson MC, Robinson CM, Delany ME. (2012). Molecular Cytogenetic Mapping in Japanese quail, Chicken and Turkey for Analysis of Avian Chromosome Evolution.

RESEARCH TECHNIQUES

Cellular Biology: Mass cytometry (CyTOF), Flow cytometry, Intracellular cytometry, Fluorescence-activated cell sorting (FACS), PBMC and primary immune cell isolation, Cell passaging, Primary immune cell activation, Protein lysate isolation and analysis, Cryopreservation

Molecular biology: DNA library preparation and QC, Pulsed-Field Gel Electrophoresis (PFGE), Western blotting, Southern blotting, Polymerase Chain Reaction (PCR), qPCR, PCR mutation arrays, Molecular cloning, SNP genotyping, DNA isolation and purification, Gel electrophoresis, Spectrophotometry

Cytogenetic: Fluorescence *in situ* Hybridization (FISH), Primed *in situ* Hybridization (PRINS), Karyotyping, Chromosome mapping, Mitotic and meiotic chromosome preparation, Tissue sectioning, Light Microscopy, Fluorescent Microscopy and Imaging

Model organisms: Mammalian and avian models for human diseases, Xenograft mouse tumor models, Animal handling, Injectable drug administration, Oral gavage, Embryo breakouts, Blood and organ/tissue collection

Data processing/Bioinformatic: R, Cytobank, Image J/ Fiji, Genus CytoVision, FlowJo, Fraise, Unix/Perl, Adobe Photoshop and Illustrator, Microsoft (MS) Office Suite, DataStudio, *DNA and RNA/miRNA sequence and expression analyses*

UNIVERSITY AND PROFESSIONAL SERVICES

Stanford University School of Medicine

Organizing Member, Stanford Immunology Postdoctoral Committee 2017-19
Symposium Organizing Chair, Stanford Immunology Postdoctoral Research Symposium 2017-19

University of California Davis

Student Chair, Integrative Genetics & Genomics (IGG) Graduate Group Executive Committee 2013-14
Admissions Student Representative, IGG Graduate Group Student Executive Committee 2014-15
Genetics Colloquium Organizing Co-Chair, IGG Graduate Group Executive Committee 2013-15
Chair of Avian Exhibits, UC Davis Picnic Day, Animal Science Committee 2013-14
Educator at Avian Exhibits, UC Davis Picnic Day, Animal Science Committee 2011-15
Recruitment Student Representative, IGG Graduate Group Student Executive Committee 2011-13
Recruitment Student Host, IGG Graduate Group Student Executive Committee 2010-11

University of Connecticut

Student Intern, UConn Biological Research Collections 2010
Environmental Campaign Intern, Connecticut Fund for the Environment 2008

TEACHING EXPERIENCE

Teaching Assistantships

Genes and Gene Expression (BIS 101), University of California Davis

Developed discussion syllabus. Conducted weekly discussion lectures and office hours. Improved students' understanding of topics and critical thinking skills. Gained key experience in formation and editing of exams, quizzes, answer keys and lecture slides. Outstanding teaching evaluations.

Dr. Michael Turelli, Dr. Chuck Langley, Department of Population Biology: 2012, 2013

Dr. Siobhan Brady, Department of Plant Biology: 2011

Mentoring and Tutoring

Laboratory training for undergraduate summer (SIMR program) students and graduate students, Transplant Immunology Lab, Stanford University School of Medicine, 2017-2019

Laboratory training for undergraduate and graduate students, Delany Lab, UC Davis, 2013-2016

Genetics tutoring for undergraduate students, UC Davis, 2012, Spring 2013

Laboratory training for undergraduate students, Brady Lab, UC Davis, Winter 2010

Laboratory training for research associates, Senatus Lab, UConn Health Center, Summer 2009-2010