

Stephanie Gomez
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EDUCATION

- The George Washington University – Washington, DC** 2017- 2023
PhD in Microbiology & Immunology
- The George Washington University – Arlington, VA** 2013- 2014
Bachelor of Professional Studies (BPS), August 2014
Major: Integrated Information, Science and Technology
Concentration: Biotechnology
- Northern Virginia Community College – Annandale, VA** 2007- 2012
Associate of Science in Social Science, December 2010
- Berklee College of Music—Boston, MA** 2006- 2007

AWARDS & HONORS

- 2023 Fellow for the Intersections Science Fellows Symposium**
- 2023 T32 Cancer Biology Postdoctoral Award (NIH/NCI T32 CA247756)**
- 2022 VAI Epigenomics Workshop & Symposium Scholarship**
selected for poster presentation
- 2022 AAI Trainee Abstract Award**
selected for oral and poster presentation at AAI Immunology 2022, Portland, OR
- 2022 Keystone Symposia Future of Science Fund Scholarship**
Epigenetic Mechanisms and the Treatment of Cancer meeting, Whistler, BC, Canada
- 2021 ICIS Milstein Abstract Award**
ICIS Cytokines 2021 Hybrid Meeting, Cardiff, Wales
- 2021 AAI Minority Scientist Award**
AAI Annual Meeting – Virtual Immunology 2021
- 2021 3rd Place in the GW CCAS Three Minute Thesis Competition (3MT)**
- 2020 NRSA Predoctoral Fellowship - Diversity (NIH/NCI 1F31CA254315-01)**
- 2020 AAI Minority Scientist Travel Award**
AAI Immunology 2020, Honolulu, HI
- 2020 AAI Trainee Abstract Award**
selected for oral presentation at AAI Immunology 2020, Honolulu, HI
- 2020 GW Institute for Biomedical Scientists (IBS) Travel Award**
AAI Immunology 2020, Honolulu, HI

2019 AACR Scholar-in-Training Award

AACR Advances in Ovarian Cancer Research, Atlanta, GA

2019 GW Summer Pre-Dissertation Fellowship Award

2019 AccelerateGW I-Corps Site Grant

Sponsored by the GW Office of Innovation and Entrepreneurship

RESEARCH EXPERIENCE

Laboratory of Dr. Catherine Bollard

Washington, DC – Children’s National Research Institute

Center for Cancer & Immunology Research (CCIR)

Cell Enhancement and Technologies for Immunotherapy (CETI) Program

Research Postdoctoral Fellow, January 2023-present

- Analyzing immune correlates for a phase 1 clinical trial assessing safety and bioactivity of tumor-associated antigen T (TAA-T) cells for the treatment of pediatric brain tumors
- Engineering CAR T cells to combat the immunosuppressive tumor microenvironment of pediatric solid tumors, specifically focusing on sarcoma and neuroblastoma

Laboratory of Dr. Katherine Chiappinelli

Washington, DC – The George Washington University

Department of Microbiology, Immunology & Tropical Medicine (MITM), The George Washington University Cancer Center, School of Medicine and Health Science (SMHS)

Graduate Research Assistant, January 2018-September 2022

- My dissertation work utilized various *in vitro* and *in vivo* methods to investigate epigenetic mechanisms to stimulate immunotherapeutic sensitization of ovarian cancer. These studies focused on the immunomodulatory effects of epigenetic drugs on immune cell populations in the tumor microenvironment. My work also explored the role of Adar1/ADAR1 and A-to-I RNA editing in the DNMTi-induced type I interferon response in ovarian cancer.

Laboratory of Dr. Galadriel Hovel-Miner

Washington, DC – The George Washington University

Department of Microbiology, Immunology & Tropical Medicine (MITM)

School of Medicine and Health Science (SMHS)

Senior Research Assistant III/Lab Manager, February 2016-August 2017

- Performed research focused on the genetic mechanisms and genes involved with antigenic variation in *Trypanosoma brucei*
- Generated a *Trypanosoma brucei* gain-of-function library by cloning more than 2500 amplified ORFs using the Gateway system, and then validated the resulting libraries using Illumina next-generation sequencing
- Maintained and applied this newly formed genetic tool in a variety of genetic screens
- Designed and created stably transfected cell lines to further elucidate the function of 70 bp repeats in *T. brucei*
- Oversaw laboratory set-up in this new lab, prepared specialized media, ordered supplies and capital equipment, maintained general lab organization, and supported other administrative tasks.

Inova Translational Medicine Institute (ITMI)
Falls Church, VA – Inova Health System
Lab Research Assistant II, June 2012-July 2014

- Supported all steps of sample collection/processing/storage, nucleic acid extraction/QC, and sample shipment to collaborators for Illumina library preparation and subsequent sequencing for several large-scale clinical and translational genomic research studies focused on preterm birth, longitudinal health, congenital anomalies, allergies/autoimmunity, heart failure, diabetes, and the microbiome
- Supported biobanking for gynecological tumors used for translational research at Inova's Women's Health Integrated Research Center (WHIRC), in addition to biobanking and sample processing for other translational genomic studies
- Designed and developed a panel of pharmacogenomics assays using TaqMan qPCR probes, which was later named MediMap™ and released as a molecular diagnostic test in the Inova Health System.
- Procured supplies and capital equipment, implemented new procurement processes, and oversaw the ordering team

TEACHING EXPERIENCE

Laboratory of Dr. Katherine Chiappinelli
Washington, DC – The George Washington University
Supervised total of 4 undergrad students or research assistants, January 2018- September 2022

Huntington Learning Center
Fairfax, VA – MGM Academic Group, LLC
Part-Time Teacher/Lead Teacher, September 2014-December 2015

RELATED PROFESSIONAL EXPERIENCE

Children's National Research Institute
Diversity, Equity, and Inclusion (DEI) Committee Member for CCIR

The George Washington University
Vivarium Renovation Project Committee, End User Representative, 2018-2019
GW Flow Core Super Users Committee, 2021-2022
GW Flow Core Steering Committee, 2021-2022
GW Glow Core Manager Search Committee, 2021-2022
MITM Medicine Department Seminar, Student Coordinator 2021-2022

GW Student Organization of Biomedical Scientists (GW SOBS)
Washington, DC – The George Washington University
Founder and Council Member, January 2018- April 2022

MedImmune (biologics arm of AstraZeneca)
Gaithersburg, MD – FSO Onsite Outsourcing
Lab Manager, March 2015-January 2016

- Co-led a team of ~15 lab associates providing operational and core lab services to over 800 scientists in the R&D Biologics facility. Services included: cell culture, immune cell isolation (with validation using flow cytometry), antibody titrations, media and buffer preparation, flow cytometer maintenance, Sanger sequencer maintenance, dishwashing/autoclaving, inventory/re-stocking lab supplies and PPE, assembly and sterilization of bench-top bioreactors

Inova Central Laboratory
Falls Church, VA – Inova Health System
Lab Tech Assistant 1, March 2011-June 2012

PROFESSIONAL ASSOCIATIONS

2023-present Society for Immunotherapy of Cancer (SITC), Student Member
2022-present The Edward Alexander Bouchet Graduate Honor Society
2021-present International Cytokine & Interferon Society (ICIS), Student/Post Doc Member
2019-present The American Association of Immunologists (AAI), Trainee Member
2018-present American Association for Cancer Research (AACR), Associate Member

PEER-REVIEWED PUBLICATIONS

Gomez S, Cox OL, Walker RR, Rentia U, Hadley M, Arthofer E, Diab N, Grundy EE, Kanholm T, McDonald JI, Kobyra J, Palmer E, Noonpalle S, Villagra A, Leitenberg D, Bollard CM, Sauntharajah Y, Chiappinelli KB. *Inhibiting DNA methylation and RNA editing upregulates immunogenic RNA to transform the tumor microenvironment and prolong survival in ovarian cancer*. Journal for ImmunoTherapy of Cancer (2022). <http://dx.doi.org/10.1136/jitc-2022-004974>

McDonald JI, Diab N, Arthofer E, Hadley M, Kanholm T, Rentia U, **Gomez S**, Yu A, Grundy EE, Cox O, Topper MJ, Xing X, Strissel P, Strick R, Wang T, Baylin SB, Chiappinelli KB. *Epigenetic therapies alter ovarian cancer repetitive element expression in a TP53-dependent manner*. Cancer Research (2021). <https://doi.org/10.1158/0008-5472.can-20-4243>

Carter M, **Gomez S**, Gritz S, Larson S, Silva-Herzog E, Kim HS, Schulz D, and Hovel-Miner G. A *Trypanosoma brucei* ORFeome-based Gain-of-Function Library identifies genes that promote survival during melarsoprol treatment. mSphere (2020). <https://doi.org/10.1128/msphere.00769-20>

Moufarrij S*, Srivastava A*, **Gomez S**, et al. *Combining DNMT and HDAC6 inhibitors increases anti-tumor immune signaling and decreases tumor burden in ovarian cancer*. Sci Rep 10, 3470 (2020). <https://doi.org/10.1038/s41598-020-60409-4>

*Equal contribution

REVIEW ARTICLES

Gomez S, Tabernacki T, Kobyra J, Roberts P, Chiappinelli KB. *Combining epigenetic and immune therapy to overcome cancer resistance* [published online ahead of print, 2019 Dec 23]. *Semin Cancer Biol.* 2019;S1044-579X(19)30419-5. <https://doi.org/10.1016/j.semcancer.2019.12.019>

Moufarrij S, Dandapani M, Arthofer E, **Gomez S**, Srivastava A, Lopez-Acevedo M, Villagra A, & Chiappinelli K.B (2019). *Epigenetic therapy for ovarian cancer: promise and progress*. *Clinical Epigenetics* 11:7. <https://doi.org/10.1186/s13148-018-0602-0>

CONFERENCE PRESENTATIONS

Cruz CRY, **Gomez S**, Geiger A, Grant M, DiCioccio R, Fortiz M, Lang H, Datar A, Shibli A, Reynolds E, Lazarski C, Wachspress M, Pezzella G, Gomez D, Tanna J, Hoq F, Hanley P, Kilburn L, Rood B, Packer R, Bollard CM, Hwang E (2023). *Research on multi-antigen T cell infusion against neuro-oncologic disease (ReMIND)*. Abstract accepted for oral presentation at Pediatric Neuro-oncology Research 2023 Conference, Washington, DC, June 2023.

Gomez S, Cox OL, Rentia U, Balick V, Hadley M, Grundy EE, Kanholm T, McDonald JI, Kobyra J, Palmer E, Saunthararajah Y, Chiappinelli KB (2022). *Inhibition of DNMTs and RNA editing increases immunogenic transposable element RNA to reduce tumor burden and prolong survival in a murine ovarian cancer model*. Abstract accepted for oral and poster presentation at AAI Immunology 2022 Conference, Portland, OR, May 2022.

Gomez S, Cox OL, Rentia U, Grundy EE, Kanholm T, Hadley M, McDonald JI, Kobyra J, Palmer E, Saunthararajah Y, Chiappinelli KB (2021). *Loss of Adar1 increases T cell migration and increases survival in ovarian cancer*. Abstract accepted for virtual poster presentation at Hybrid ICIS Cytokines 2021 Conference, October 2021.

Gomez S, Grundy EE, Kanholm T, Hadley M, McDonald JI, Rentia U, Kobyra J, Palmer E, Chiappinelli KB (2021). *Loss of Adar1 increases T cell migration and increases survival in ovarian cancer*. Abstract accepted for poster presentation at AAI Virtual Immunology 2021 Conference, May 2021.

Gomez S, Palmer E, Kobyra J, Hadley M, Chiappinelli KB (2020). *DNMTi plus anti-4-1BB therapy reverses suppressive tumor microenvironment and reduces tumor burden in ovarian cancer*. Abstract accepted for poster and podium presentations at AAI Immunology 2020 Conference, Honolulu, HI. [conference canceled due to the COVID-19 pandemic]

Gomez S, Diab N, Arthofer E, McDonald J, Srivastava A, Austin P, Chiappinelli KB (2019). *The role of mutant P53 in repetitive element regulation and the immune response in ovarian cancer*. Poster presented at AACR Advances in Ovarian Cancer Research Special Conference, Atlanta, GA, September 2019.

Gomez S, Kim H, Schulz D, Papavasiliou NP, & Hovel-Miner GA (2017). *Completion of a Trypanosoma brucei whole-genome gain-of-function library*. Poster presented at the Kinetoplastid Molecular Cell Biology 2017 International Conference, Woods Hole, MA.