

# Curriculum Vitae

## Daniel Joseph Gomez

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### Objective

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My career interests are in the applications cellular biology of fending off emerging pathogens, solving diseases with molecular and biotechnical techniques. I will gain the ins and outs of the Omics through research, industry, and academia. I can present data (talk/poster) as it is a big part of the research process. I worked alongside MDs, PhDs and other post-doc fellows, this gave me the insight to the work ethic necessary for a career in medicinal science. Technical writing has always pleased me because I was able to tell and read intricate biological stories. I would like to describe molecular mechanisms, create molecular inventions, and include the structures and functions of elegant peptides and functional ribozymes that point to immunodetections (infections, diseases, disorders, etc), biomarkers, and extract the pathological implications. After obtaining my BS degree, I'll set myself up to become a Professional Science Master's and then doctoral student to become a Post-Doctoral Fellow.

### Education

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**Bachelor of Science.** SF State University. San Francisco, CA 2020 - Present  
Cell and Molecular Biology  
Department of Biology

John A. Burns School of Medicine  
Department of Tropical Medicine, Medical Microbiology, and Pharmacology  
John Hopkins University  
Department of Neurology

#### *Relevant Graduate Coursework*

- Intro to the Neurosciences
- Neurovirology
- Translation Research in NeuroHIV and Mental Health (TR-NAMH)

### Professional Experience

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**Manufacturing Associate I.** ThermoFisher Scientific, Pleasanton, CA. Jul 2019-Present

- Team based environment to manufacture high quality custom oligonucleotides
- High throughput, fast paced setting
- Manufacture Oligonucleotides by following established protocols and SOP's
- Operate semi-automated and automated basic lab equipment
- Responsible for the production of custom gene based products and/or various intermediates according to established SOPs
- Complete manufacturing batch records to contribute to the daily production schedule
- Operation of robotic laboratory equipment and traditional lab equipment (bioanalyzers, centrifuges, sealers, thermocyclers, spectrometers, HPLCs, Next Gen Sequencing etc.)
- Daily use of traditional molecular biology processes and techniques especially PCR, DNA, quantitation and handling, DNA purification
- Updating and writing work instructions and documentation

- Packaging products
- Ability to work in an ISO, GMP, LEAN mfg environment and follow the lean manufacturing concepts
- Daily completion of assigned tasks to keep MFG on track

**Research and Development Coordinator (RDC).** dosist. San Francisco, CA      Dec 2015-Feb 2016

- Provides pre and post award support by: facilitating, guiding and supporting the development of competitive, high quality research proposals at both the divisional and institutional level.
- This involves networking and liaison with external research funders including federal and provincial granting agencies, research foundations, and private organizations, as well as with current and potential research partners.
- Working in a multi-tasking, team environment, the RDC is responsible for research prospecting; funder cultivation, engagement and solicitation; pre- and post- award support; financial management; liaison with researchers and department staff in identification of new funding opportunities; proposal and report editing; project development and grant stewardship; liaison with RRU Finance division with respect to research grants administration; maintaining the grant reporting calendar for Office of Research; working with, and generating reports from, the Research Project Management database; and the production of research annual reports as well as other communications activities and duties as required.
- A key function of this position entails post-award follow-up, financial management, and communication. As such, the RDC will be responsible for coordinating timely report stewardship interacting with internal stakeholders and the funder. This will entail reviewing and coding expense claims and invoices, processing contracts, following up with project principal investigators and Finance to inform them of reporting guidelines and timelines, providing assistance, where necessary, in obtaining and presenting the necessary data, and reviewing the final report for accuracy and quality.
- The RDC will be responsible for negotiating, when necessary, no-cost extensions and coordinating clarification of questions surrounding grant stewardship with the funder. Another key function involves data management and reporting of research activities.
- The RDC will remain informed about current research through thorough analysis of funding agencies web sites and other information sources. In addition, the position involves participating in certain project-related events, travel to professional conferences and workshops, travel to meetings with funders and other stakeholders and potential partners, and other research functions as assigned.

**Research Associate.** JABSOM Tropical Medicine, Medical Microbiology, and Pharmacology.

Honolulu, HI

Jan 2012 - June 2013

- Developing an immunohistochemistry (IHC) system for JCPyV and HIV-1 Disease.
- PI- Dr. Shiramizu, Dr. Nerurkar (~40hrs/week).

**Biology Assistant.** John A. Burns School of Medicine (JABSOM), Honolulu, HI.  
2013

Aug 2012-Dec

Department of Tropical Medicine, Medical Microbiology, and Pharmacology

- Developing a drug delivery system for HIV-1 Disease in the BBB.

- Develop blood-brain barrier for PBMC permeability assays
- Flow Cytometry (FACS)
- qPCR, NanoDrop
- Autoclave, Vortex, Centrifuge, cell-culture
- PI- Dr. Shiramizu (~20hrs/week).

## Research Experience

**Scientific Ambassador.** UF. Gainesville, FL Jan 2019 - Present

- Raise awareness of Agricultural and Life Sciences
- Apply fundamental concepts, skills and protocols used to conduct research in fields of microbiology, molecular biology and in host/pathogen.
- Communicate effectively in written form in a manner appropriate in microbiology and the cellular and molecular biological sciences.
- Communicate orally (including visual aids) in an effective manner appropriate in microbiology and the cellular and molecular biological sciences.

**Research and Development Coordinator.** dosist. San Francisco, CA Dec 2015-Feb 2016

- Developing disposable bioengineered micro dosed vape pens as deliverables for market.
- Research Human trials (~40hrs/week).
- Dosist pens (relief, bliss, clam, sleep, passion, arousal)

**Research Assistant.** UCSD School of Medicine Division of Neuroanesthesia. Jan 2014-Jun 2014  
La Jolla, CA

- Developing a drug delivery system for Neurocardiological Disease protection.
- Mouse handling, *ex vivo* protocols
- Caveolin scaffolding life support for heart organ
- PI- Dr. Patel (~5-15hrs/week). Jan Schilling, MD. Brian Head, PhD.

**Research Associate.** JABSOM Tropical Medicine, Medical Microbiology, and Pharmacology.  
Honolulu, HI Jan 2014-Jun 2014

- Developing an immunohistochemistry system for JCPyV and HIV-1 Disease.
- Immunocytochemistry procedures in kidney and brain
- PI- Dr. Nerurkar (~40hrs/week). Mukesh Kumar, PhD.

**Research Associate.** John A. Burns School of Medicine (JABSOM), Honolulu, HI. Aug 2012-July 2013

- Developing a drug delivery system for HIV-1 Disease in the BBB.
- PI- Dr. Shiramizu (40hrs/week). Melissa Agsalda, MD. Patrick Kirkland, MD.

## Research Interests

Epidemiology  
Bioinformatics  
Drug metabolism

Nanotechnology  
Translational research  
Toxicology

Oncology  
Neuroscience  
Emerging Pathogens

## Lab skills

Cell culture (*in vivo*, *in vitro*)  
Mouse handling (anesthesia, *ex vivo*)

Nanoparticle synthesis  
Flow cytometry (*in vitro*)

PCR/qPCR  
R programming (*in silico*)

Bioinformatics ( <i>in silico</i> )	Microscopy ( <i>in situ</i> )	Sequencing
Gel Electrophoresis	Python programming ( <i>in silico</i> )	Western blots
Drug encapsulation	DNA/RNA extraction ( <i>in vitro</i> )	Toxicity assays

Excellent computer and analytical skills using a large variety of programs and software, excellent public presentation skills. Good documentation skills and ability to write procedure and report. Experience with common lab equipment such as pipettes, nanodrop, centrifuges, thermocyclers, microscopes, etc.

## Publications

*Anticipated 2020*

## Awards and Honors

<b>Undergraduate Research Opportunities Program (UROP) Award</b>	2013
• \$5000 award.	

## Teaching Experience

<b>Tutor.</b> 10hrs/week	2012
• Organic Chemistry Tutor	

<b>University Tutor.</b> 15hrs/week	2011
• CHEM161 General Chemistry (Dr. Hemscheidt)	
• Learning Emporium	

<b>Undergraduate Teaching Assistant.</b> 20hrs/week	2011
• CHEM161 General Chemistry (Dr. Talisman)	
• CHEM161L General Chemistry Lab I (Dr. Talisman)	

## Medical and Clinical Experience

<b>Volunteer (Shadowing)</b>	2012
• Observed Dr. Slavin, pediatrics and clinical geneticist, in the Medical Genetics section, City of Hope (9 hours/month)	

## Certifications

IRB Training  
March 2019

Life Sciences Responsible Conduct of Research Course (RCR)  
March 2019

Medical School Pathology – Certificate of Achievement  
June 2018

DNA Research with Biopython  
Nov 2017

Data Science and Machine Learning Bootcamp with R  
Oct 2017

Google's Go (golang) Programming Language  
Oct 2017

Python for Data Science and Machine Learning  
Sep 2017

## Community Service

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<b>Market Research.</b> Berkeley Humane	2014
• Animal Welfare	
<b>Community Wellness Advocate.</b> American Cancer Society	2014
• Social Services	

## International Experience

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<b>Teacher.</b> English Language	Summer 2005
• Thailand, Laos	
<b>Violinist.</b> Orchestra	Summer 2006
• France, Belgium	

## Technical Skills

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Computer proficiency (MS office, Stats, SAS, R), 7 years of lab and research experience, technical writing, strong organizational and leadership skills, project management, Organizational leadership

## Professional Organization Membership

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The American Society for Cell Biology (ASCB)  
2019

American Society for Microbiology  
2019

University of Florida Student Chapter  
(ASM Gators)

The Journal of Experimental Biology  
2014  
Transforming the Future through Science  
Federation of American Societies for Experimental Biology

The Journal of Immunology (AAI)  
2013  
AAI Centennial  
A Century of Excellence: Celebrating 100 Years of The Journal of Immunology  
The American Association of Immunologists, Inc.

## Hobbies

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Designing, Drafting, Drawing, Stagecraft, Lighting and Sound, Violin Music, Travelling, Photography, Cooking, Health and Fitness