Curriculum Vitae

**Ana I. Lopez Medina**

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**Education**

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| **University of Michigan College of Pharmacy ∙** *Ann Arbor, MI*  Doctor of Pharmacy Candidate – Class of 2022  Clinical Pharmacy Translational Science (CPTS) PhD Program | Sept. 2018 - Present |
| **Florida International University∙** *Miami, FL*  Prerequisites for PharmD program | Jan. 2016 - Jul. 2018 |
| **University of Havana∙** *Havana, Cuba*  Postgraduate Coursework   * Took classes in cardiovascular physiology and biophysics of ionic channels. | Sept. 2011 - Aug. 2014 |
| **University of Havana ∙** *Havana, Cuba*  Bachelor of Science **∙** Biology | Sept. 2006 - Jul. 2011 |

**Research Experience**

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| **Graduate Student**  College of Pharmacy. University of Michigan· *Ann Arbor, Michigan*  **Mentor: Jasmine A. Luzum, PharmD, PhD**   * Studying the genetics of drug-induced QT prolongation. * Performing a Genomic Analysis of Myocardial Contractility Kinetics. | Sep 2019- Present |
| **Research Assistant**  College of Pharmacy. University of Michigan· *Ann Arbor, Michigan*  **PI: Beatriz Mitrzyk, PharmD**   * Researched of health disparities and medication use in Hispanics with depression * Studied the impact of COVID-19 on medication use among Hispanics. | Jun. 2020 -Jan. 2021 |
| **Clinical Research Coordinator/ General Clinical Manager**  LG Diagnostic· *Miami, FL*   * Monitored clinical trial activities to ensure compliance with protocols and with all relevant local, federal, and state regulatory policies. * Coordinated the daily clinical trial activities and plays a critical role in the study. * Solved customer problems and redesigned business to improve company revenues. | Jan. 2015 – Jul. 2018 |
| **Clinical Trials Conducted**   * Renal hemodialysis patients Allocated Apixaban versus Vitamin K antagonist in Atrial Fibrillation. Sponsor: Duke University Medical Center. Protocol Number: CV185-450. * A Double-blind, Randomized, Placebo-controlled, Multicenter Study to Assess the Efficacy and Safety of Omecamtiv Mercabil/AMG 423 on Mortality and Morbidity in Subjects with Chronic Heart Failure with Reduced Ejection Fraction. Sponsor: Amgen. Protocol Number: 20110203. * Expanded noninvasive genomic medical assessment: The Enigma Study. A clinical study to evaluate the relative clinical sensitivity, specificity, and performance of a laboratory developed test as a screening test for fetal chromosomal aneuploidy, infectious and other diseases, and RhD genotyping in the general population of pregnant women. Sponsor: Progenity. Protocol Number: PRO-102-ENIGMA. * Collection of Samples for Analytical Validation of a Hereditary Cancer Gene Sequencing Panel. Sponsor: Progenity. Protocol Number: PRO-109-HCP. Whole Blood Specimen Collection from Pregnant Subjects. Sponsor: Progenity. Protocol. Number: PRO-101-SAMPLES. | |
| **First Level Researcher**  Electrophysiology Laboratory. Institute of Cardiology and Cardiovascular Surgery· *Havana, Cuba*  **PI: Julio Alvarez, PhD**   * Studied the cardiovascular actions of Ibuprofen * Studied the activity of Zinc in the modulation of L-type Ca2+ current in rat ventricular cardiomyocytes**.** * Researched the antiarrhythmic action of creatine in acute myocardial infarction. * Studied the mechanism of action of flavonoids in cardiac current channels. * Studied the effect of 2,3-Butanedione monoxime (BDM) on the adrenergic response of the L-type Ca2+ current in rat ventricular cardiomyocytes. | Sept. 2011- Aug. 2014 |
| **Research Intern**.  Cuban Neuroscience Center· *Havana, Cuba*   * Conducted literature reviews on the processes involved in   facial recognition.   * Prepared materials for prosopagnosia   research, reports and presentations on the subject. | May. 2010 - Jul. 2010 |

**Publications**

* **Lopez-Medina, AI**., Campos-Staffico, AM., Luzum JA. QT Prolongation with Hydroxychloroquine and azithromycin for the treatment of COVID-19. The need for Pharmacogenetic Insights. J Cardiovasc Electrophysiol. 31(10):2793-2794. 2020 PMID: 32870576. Roles: Writing, Critical review
* Alvarez Collazo, J., \***Lopez-Medina, AI**., Galan Martinez, L., Alvarez Gonzalez, J. 2,3-Butanedione monoxime attenuates the â-adrenergic response of the L-type Ca2+ current in rat ventricular cardiomyocytes. Journal of Pharmacy & Pharmacognosy Research, 4 (6), 206-216. 2016. **\*Co-First authorship**. Roles: Data collection, Data analysis
* Alvarez-Collazo J; Sampedro-Castañeda, M; Galan-Martinez L; **Lopez Medina, AI;** Vassort G; Álvarez, J. On the nature of the L-type Ca2+ current inactivation in rat ventricular cardiomyocytes. Rev. Cub. Fis. 32(42), 2015. Roles: Data collection, Data analysis
* [Alvarez-Collazo J](http://www.ncbi.nlm.nih.gov/pubmed/?term=Alvarez-Collazo%20J%5BAuthor%5D&cauthor=true&cauthor_uid=24563220), [Alonso-Carbajo L](http://www.ncbi.nlm.nih.gov/pubmed/?term=Alonso-Carbajo%20L%5BAuthor%5D&cauthor=true&cauthor_uid=24563220), **[Lopez Medina AI](http://www.ncbi.nlm.nih.gov/pubmed/?term=L%C3%B3pez-Medina%20AI%5BAuthor%5D&cauthor=true&cauthor_uid=24563220),** [Alpizar YA](http://www.ncbi.nlm.nih.gov/pubmed/?term=Alpizar%20YA%5BAuthor%5D&cauthor=true&cauthor_uid=24563220), [Tajada S](http://www.ncbi.nlm.nih.gov/pubmed/?term=Tajada%20S%5BAuthor%5D&cauthor=true&cauthor_uid=24563220), [Nilius B](http://www.ncbi.nlm.nih.gov/pubmed/?term=Nilius%20B%5BAuthor%5D&cauthor=true&cauthor_uid=24563220), [Voets T](http://www.ncbi.nlm.nih.gov/pubmed/?term=Voets%20T%5BAuthor%5D&cauthor=true&cauthor_uid=24563220), [Lopez-Lopez JR](http://www.ncbi.nlm.nih.gov/pubmed/?term=L%C3%B3pez-L%C3%B3pez%20JR%5BAuthor%5D&cauthor=true&cauthor_uid=24563220), [Talavera K](http://www.ncbi.nlm.nih.gov/pubmed/?term=Talavera%20K%5BAuthor%5D&cauthor=true&cauthor_uid=24563220), [Perez-Garcia MT](http://www.ncbi.nlm.nih.gov/pubmed/?term=P%C3%A9rez-Garc%C3%ADa%20MT%5BAuthor%5D&cauthor=true&cauthor_uid=24563220), [Alvarez JL](http://www.ncbi.nlm.nih.gov/pubmed/?term=Alvarez%20JL%5BAuthor%5D&cauthor=true&cauthor_uid=24563220). [Cinnamaldehyde inhibits L-type calcium channels in mouse ventricular cardiomyocytes and vascular smooth muscle cells.](http://www.linkedin.com/redir/redirect?url=http%3A%2F%2Flink%2Espringer%2Ecom%2Farticle%2F10%2E1007%252Fs00424-014-1472-8&urlhash=-Oqx&trk=prof-publication-title-link" \t "_blank) Pflügers Archiv Eur J Physiol. 466 (11), 2014. PMID: 24563220. Roles: Design, Data collection, Data analysis
* **Lopez-Medina, AI;** Alvarez-Collazo, J; Rodriguez, A; Moron-Rodriguez, F; Cabrera-Suarez, H; Alvarez, J. Direct actions of naringin on rat cardiac and vascular smooth muscle. BLACPMA 13 (3), 2014. Roles: Data collection, Data analysis.
* Alvarez Collazo, Julio; **Lopez-Medina, AI**; Rodriguez, A; Alvarez, JL. [Mechanism of the negative inotropic effect of naringin in mouse heart.](http://www.linkedin.com/redir/redirect?url=http%3A%2F%2Fjppres%2Ecom%2Fjppres%2Fnegative-inotropic-effect-of-naringin%2F&urlhash=PanX&trk=prof-publication-title-link) Journal of Pharmacy & Pharmacognosy 2(5), 2014. Roles: Data collection, Data analysis
* **Lopez-Medina, AI;** Alvarez-Collazo J; Vassort G; Álvarez, J. [Antiarrhythmic action of creatine in acute myocardial infarction.](http://www.linkedin.com/redir/redirect?url=http%3A%2F%2Fwww%2Erevcardiologia%2Esld%2Ecu%2Findex%2Ephp%2Frevcardiologia%2Farticle%2Fview%2F325%2F527&urlhash=LxRr&trk=prof-publication-title-link) Rev. Cub. Cardiol. Cir. Cardiovasc. 19(1), 2013. Roles: Data collection, Data analysis
* Alvarez-Collazo J, Díaz-García CM, **Lopez-Medina AI,** Vassort G, Alvarez JL. Zinc modulation of basal and β-adrenergically stimulated L-type Ca2+ current in rat ventricular cardiomyocytes: consequences in cardiac diseases. Pflugers Arch. Eur. J. Physiol. 464(5), 2012. PMID: 23007464. Roles: Data collection, Data analysis
* Galan-Martinez L; Osorio-Acevedo A; **Lopez-Medina, AI;** Alvarez-Collazo J; [Alvarez JL](http://www.ncbi.nlm.nih.gov/pubmed/?term=Alvarez%20JL%5BAuthor%5D&cauthor=true&cauthor_uid=23007464). Cardiovascular actions of Ibuprofen. Rev. Cub. Invest. Biomed, 29(3), 2010. Roles: Critical review

**Presentations**

**Seminars:**

* “Addressing Social Determinants of Health in the Care of Patients with Heart Failure” at the University of Michigan College of Pharmacy P730 Pharmacy Student Seminar, Ann Arbor, MI, July 30th, 2021.
* “Drug-induced QT prolongation: How to Manage in Clinical Practice” at Huron Valley PACE, Ypsilanti, MI, July 21st, 2021
* “Genetics of drug-induced QT prolongation: Evaluation of the Evidence for Pharmacodynamic Variants” at the University of Michigan College of Pharmacy Clinical Pharmacy and Translational Science Seminar Series, Ann Arbor, MI, April 12th, 2021.
* “Genetics of drug-induced QT prolongation: A focus on Pharmacodynamic variants” at the University of Michigan College of Pharmacy Clinical Pharmacy and Translational Science Seminar Series, Ann Arbor, MI, October 26th, 2020.
* “Genetics of drug-induced QT prolongation: The role of cardiac ion channels” at the University of Michigan College of Pharmacy Clinical Pharmacy and Translational Science Seminar Series, Ann Arbor, MI, April 6th, 2020.

**Teaching Experience**

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| **“Endocrine system”** *Pharmacy Scholar Program 2021*  Review of the Endocrine system (undergraduates)  University of Michigan College of Pharmacy· *Ann Arbor, Michigan* | Jun.2021- Jul.2021 |
| **“Genetics”** *Pharmacy Scholar Program 2021*  Review of Genetics (undergraduates)  University of Michigan College of Pharmacy· *Ann Arbor, Michigan* | Jun.2021- Jul.2021 |
| **“Cardiovascular Physiology”**  Assisted with teaching course for residents  Institute of Cardiology and Cardiovascular Surgery· *Havana, Cuba* | Sep.2011- Aug.2014 |

**Clinical Practice Experience**

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| **Pharmacy Intern. Cardiology (Inpatient).** Michigan Medicine University of Michigan· *Ann Arbor, Michigan*  **Preceptor: Dr. Kristen Pogue** | Mar.2022-Apr.2022 |
| Pharmacy Intern. Industry. Milad Pharmaceutical Consulting· *Plymouth, Michigan*Preceptor: Dr. Mark Milad, PharmD | Feb.2022- Mar.2022 |
| **Pharmacy Intern**. **Medication Use Policy**· University of Michigan Heath System, Drug Information Service · *Ann Arbor, Michigan*  **Preceptor:** **Dr. Noah Leja, PharmD** | Jan.2022 -Feb.2022 |
| **Pharmacy Intern**. **Community Pharmacy. Compounding**  Clark Professional Pharmacy· *Ann Arbor, Michigan*  **Preceptor: Dr. Nathaniel Worthing** | Jul.2021-Aug.2021 |
| **Pharmacy Intern. Ambulatory Care**. **Managed Care**  Huron Valley PACE· *Ypsilanti, Michigan*  **Preceptor: Rosalyn Schloemer, PharmD, BCGP**   * Comprehensive medication reviews and medication therapy management in geriatric population. * Anticoagulation management. | Jun.2021- Jul.2021 |
| **Pharmacy Intern. Ambulatory Care**. **Disease Management**  Walgreens Specialty Pharmacy (Rock Health) · *Detroit, Michigan*  **Preceptor: Whitney Moulder, PharmD**   * Comprehensive medication reviews and medication therapy management for complex disease states (HTN, diabetes, HIV, migraine, weight loss and chronic inflammatory disease). | May.2021- Jun.2021 |
| **Pharmacy Intern. Direct Patient Care**. **Outpatient Oncology**  Michigan Medicine University of Michigan *Ann Arbor, Michigan*  **Preceptor: Ya-ting Liang, PharmD**   * Collected patient medication histories, review medication profiles and to identify medication-related problems (Medication Reconciliation) | Jul. 2020 - Aug.2020 |
| **Pharmacy Intern. Health Care System**.  Michigan Medicine University of Michigan *Ann Arbor, Michigan*  **Preceptor: Dr. Carolyn Richards, PharmD**   * Rogel Cancer Center- Infusion Pharmacy (Dr. Joel Graham) * C.S. Mott Children's Hospital- OR Pharmacy/Inpatient Pharmacy (Dr. Mohammed Zalmout) * Taubman Ambulatory Care Pharmacy- Outpatient Pharmacy (Dr. Frank Pawlicki) * Central Pharmacy- Operational Pharmacy (Dr. Jenn Erley) * Leadership/ Management (Dr. Lindsey Kelley) * Diversion Prevention/ Controlled Substances Management (Dr. Kim Landini) * Purchasing and Contracting (Dr. Janine Lee) * Medication Shortages (Dr. Sharon Salah) * Medication Safety (Dr. Jeff Hurren) * Medication Use Policy (Dr. Karin Durant) * Leadership/Management/Research (Dr. Mike Kraft) * Medication Management Compliance (Dr. Matt Zedro) | Jun. 2020 - Jul.2020 |
| **Pharmacy Intern. Ambulatory Care**. **Transition of Care**  Michigan Medicine University of Michigan *Ann Arbor, Michigan*  **Preceptor: Kellie Kippes, PharmD**   * Reviewed and compare medication lists from admission, discharge and current medication list. Assess medical stability. * Completed comprehensive medication review with patient and facilitates interventions, based on patient’s individual needs, with the discharging physician or appropriate member of the multidisciplinary team. | Sep. 2019- Dec.2019 |
| **Pharmacy Intern**. **Community Pharmacy**  Walmart-Sam’s Club Pharmacy· *Ypsilanti, Michigan*  **Preceptor: Sujal Patel, PharmD**   * Collection of medical record and assess subjective and objective patient data to define health and medication related problems. * Comply with all federal, state, and local laws related to pharmacy practice and provide effective health and medication information to patients and/or care givers. * Utilize knowledge of a wide array of private and public health insurance options to assist patients and caregivers to obtain their medications in an affordable manner that meets their healthcare needs. | Sep.2019- Dec. 2019 |
| **Pharmacy Intern**. 2019 Spanish Immersion Internship  CVS · *Detroit, MI*  **Preceptor: Dr. Marcos Santos, PharmD**   * Participated in the care of patients with a variety of acute and chronic conditions, focusing on the Hispanic community and utilizing the Spanish language. * Assisted Pharmacist with maintaining daily and weekly reports, and practice and develop duties performed by pharmacists when applicable and according to law. | May.2019- Jun.2020 |

**Volunteer Work/ Community Involvement**

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| **COVID 19 Vaccine Clinics**· Washtenaw County Health Department· *Ann Arbor, Michigan*   * Provided COVID 19 immunization for Latinx community at St. Francis of Assisi Catholic Church | Apr. 2021 |
| **Pharmacy Scholar Program**· COP-UM· *Ann Arbor, Michigan*   * Mentored pharmacy student candidates | May. 2020 -Jun. 2020 |
| **COP Flu Clinic**· University of Michigan· *Ann Arbor, Michigan*   * Provided flu immunization for students, faculty and employees of the College of Pharmacy | Sep. 2019 |
| **Community Connect Day**· Kroger· *Canton, Michigan*   * Educated people about opioid overuse and naloxone | Aug. 2019 |
| **YpsiFest Community Health Tent**· *Ypsilanti, Michigan*   * Screened patients for A1C, Cholesterol and HTN | Aug. 2019 |
| **Pharmacy Students at Farmer’s Market**· *Ann Arbor, Michigan*   * Blood pressure screening and OTC information | Sep. 2018 |

**Licensure & Certification**

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| * **Pharmacy-Based Immunization Delivery**   *American Pharmacist Association* | Aug. 2019 - Present |
| * **Adult Mental Health First Aid**   *MHFA* | Jan. 2019 – Present |
| * **Pharmacy Intern**   *Michigan Department of Licensing and Regulatory Affairs*  *(No:5351013643)* | Oct. 2021 – Present |
| * **Basic Life Support Provider (CPR & AED)**   *American Heart Association (ID: 205505155854)* | Aug. 2020 – Present |
| * **Good Clinical Practice (ICH-GCP)**   *Biopharm Institute* | Mar. 2016 – Present |
| * **Protecting Human Research Participants.**   *The National Institute of Health (NIH)* | Mar. 2016 – Present |

**Professional Membership & Leadership Positions**

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| American Society for Clinical Pharmacology & Therapeutics (ASCPT) | Jul. 2020 – Present |
| Pharmacogenomic Research Network (PGRN) | Jul. 2020 – Present |
| Student National Pharmaceutical Association (SNPhA)   * Mental Health Committee Chair. * Fundrasing co-lead for Regional Conference Planning SNPhA 2021 | Jun. 2020 - Jan 2021 |
| Industry Pharmacist Organization (IPhO) | Jul. 2020 – Jan 2021 |

**Honors & Awards**

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| **Graduate Honors** – *University of Michigan*   * Dean’s Scholarship Award for Distinction | Sep. 2018 -Present |
| **Undergraduate Honors** – *Florida International University*   * Phi Kappa Phi Academic Honor Society   + *Membership is only awarded by invitation and to juniors who have completed at least 72 credit hours, with at least 24 semester hours at their current institution, and rank in the top 7.5 percent of their class.* * Golden Key International Honor Society * *Membership is only awarded by invitation and to undergraduate and graduate students when they are at the top 15% of their class.* * Dean’s List   + *Awarded to fully admitted undergraduate students who earn a semester average GPA of 3.5 or higher on nine or more semester credit hours of coursework.* | Jan. 2016- Jul.2018 |

**Languages**

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| **Spanish**  Native fluency, both written and spoken. |