

Faculty

School of Pharmacy
Medical Sciences Campus
University of Puerto Rico



Kyle Melin, PharmD, MSc, BCPS, AE-C

Research Areas and Active Projects

As a clinical researcher, I am actively involved in the study of pharmacogenomics and personalized medicine in the Hispanic population. Through my research, I aim to develop the capabilities to better measure, understand, and utilize the genetic basis for observed drug response variability in the Hispanic population to enable clinicians to provide higher quality care through personalized medicine approaches to care. I am a co-investigator on the 5-year clinical trial “Adopting A Precision Medicine Paradigm In Puerto Rico: Leveraging Ancestral Diversity To Identify Predictors Of Clopidogrel Response In Caribbean Hispanics” (U54MD007600, PI J Duconge). Other current projects include pharmacogenomic determinants of response to treatment for opioid use disorder as well as current prescriptive patterns of opioids in Puerto Rico.

I am also involved in a variety of community pharmacy-based research projects that evaluate the effectiveness of pharmacist-based interventions in improving control of chronic illnesses, patient self-management, and immunizations. As part of my interest in practice-based research, I serve as the research coordinator for the UPR-MSc PGY-1 residency program in community pharmacy practice. We are currently investigating pharmacist readiness to provide pharmaceutical care to transgender patients as well as strategies to improve the quality of care provided by pharmacists for this patient population.

Contact Information

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Rank/Discipline

Associate Professor
Department of Pharmacy
Practice

Education & Specialty Certification

PharmD, Ohio Northern University
Raabe College of Pharmacy, 2009.

Ambulatory Care Pharmacy Practice
Residency, St. Rita’s Medical
Center, Lima, OH, 2010.

Publications

1. Melin K, Moon JY, Qi Q, Hernandez-Suarez DF, Duconge J, Hua S, Gonzalez S, Zeng D, Kaplan RC. Prevalence of pharmacogenomic variants affecting the efficacy of clopidogrel therapy in the HCHS/SOL cohort. *Pharmacogenomics*. 2019;20(2):75-83.
2. Melin K, Rodríguez-Díaz CE. Community Pharmacy Response in the Aftermath of Natural Disasters: Time-Sensitive Opportunity for Research and Evaluation. *J Prim Care Community Health*. 2018;9:2150132718813494.

Education & Specialty Certification

Board Certified Pharmacotherapy Specialist, Board of Pharmacy Specialties, 2011

Certified Asthma Educator, National Asthma Educator Certification Board (NAECB), 2011.

MSc Clinical and Translational Research, University of Puerto Rico Medical Sciences Campus, 2018

3. Melin K, Hilera-Botet CR, Vega-Vélez D, et al. Readiness to provide pharmaceutical care to transgender patients: Perspectives from pharmacists and transgender individuals. *J Am Pharm Assoc.* 2019;59(5):651-659.
4. Martinez-Velez JJ, Melin K, Rodriguez-Diaz CE. A Preliminary Assessment of Selected Social Determinants of Health in a Sample of Transgender and Gender Nonconforming Individuals in Puerto Rico. *Transgend Health.* 2019;4(1):9-17.
5. Melin K, Conte-Schmidt N, Martínez-Arroyo K, Rosa-Pérez K, Soto-Avilés AE, Hernández-Muñoz JJ. Knowledge and Perceptions of E-cigarettes and the Motivations for their Use: Talking to Smokers (E-cigarettes and/or Conventional Cigarettes) and Non-smokers in Puerto Rico. *P R Health Sci J.* 2018 Sep;37(3):148-154.
6. Hernandez-Suarez DF, Botton MR, Scott SA, Tomey MI, Garcia MJ, Wiley J, Villablanca PA, Melin K, Lopez-Candales A, Renta JY, Duconge J. Pharmacogenetic association study on clopidogrel response in Puerto Rican Hispanics with cardiovascular disease: a novel characterization of a Caribbean population. *Pharmgenomics Pers Med.* 2018 Jun 8;11:95-106. doi: 10.2147/PGPM.S165805. eCollection 2018.
7. Hernandez-Suarez DF, Tomassini-Fernandini JC, Cuevas A, Rosario-Berrios AN, Nuñez-Medina HJ, Padilla-Arroyo D, Rivera N, Liriano J, Vega-Roman RK, Renta JY, Melin K, Duconge J. Clinical Relevant Polymorphisms Affecting Clopidogrel Pharmacokinetics and Pharmacodynamics: Insights from the Puerto Rico Newborn Screening Program. *Int J Environ Res Public Health.* 2018 May 30;15(6). pii: E1115. doi: 10.3390/ijerph15061115.
8. Melin K, Maldonado WT, López-Candales A. Lessons Learned From Hurricane Maria: Pharmacists' Perspective. *Ann Pharmacother.* 2018 May;52(5):493-494. doi: 10.1177/1060028017751691.
9. Hernandez-Suarez DF, Núñez-Medina H, Scott SA, Lopez-Candales A, Wiley JM, Garcia MJ, Melin K, Nieves-Borrero K, Rodriguez-Ruiz C, Marshall L, Duconge J. Effect of cilostazol on platelet reactivity among patients with peripheral artery disease on clopidogrel therapy. *Drug Metab Pers Ther.* 2018 Mar 28;33(1):49-55.
10. Melin K, Conte N. Community pharmacists as first responders in Puerto Rico after Hurricane Maria. *J Am Pharm Assoc.* 2018 Mar - Apr;58(2):149. doi: 10.1016/j.japh.2017.12.014. Epub 2018 Jan 17.
11. Hernandez-Suarez DF, Scott SA, Tomey MI, Melin K, Lopez-Candales A, Buckley CE, Duconge J. Clinical determinants of clopidogrel responsiveness in a heterogeneous cohort of Puerto Rican Hispanics. *Ther Adv Cardiovasc Dis.* 2017 Sep;11(9):235-241. doi: 10.1177/1753944717718718. Epub 2017 Jul 4.
12. Jiménez-Quiñones EM, Melin K, Jiménez-Ramírez FJ. Impact of a Pharmacist Conducted Educational Program on Human Papilloma Virus Vaccination Rates in a Low Socioeconomic Population in the City of Lares, PR. *P R Health Sci J.* 2017 Jun;36(2):67-70.
13. Rodríguez NN, Melin K. Immunization Rates and Barriers to Influenza Vaccine Access in the Community Pharmacy. *Journal of Vaccines & Vaccination.* 2017 May; 8(3).
14. Hernandez-Suarez DF, Claudio-Campos K, Mirabal-Arroyo JE, Torres-

Hernández BA, López-Candales A, Melin K, Duconge J. Potential of a Pharmacogenetic-Guided Algorithm to Predict Optimal Warfarin Dosing in a High-Risk Hispanic Patient: Role of a Novel NQO1*2 Polymorphism. *J Investig Med High Impact Case Rep.* 2016 Dec 1;4(4):2324709616682049. doi: 10.1177/2324709616682049. eCollection 2016 Oct-Dec.

15. Melin K. Nutritional Supplements: Certification programs to ensure quality dietary supplements. *J Am Pharm Assoc* (2003). 2016 May-Jun;56(3):222-3. doi: 10.1016/j.japh.2016.04.511.
16. Rodriguez I, Melin K, Caraballo M, Quiles N. Immunization campaign to improve the pneumococcal vaccine rates in a chain pharmacy across Puerto Rico through the implementation of an educational program. *Pharmaceutical Care & Health Systems.* 2015 August; S3(004).
17. Soto Santiago FE, Melin K. Impact of Clinical Pharmacist Intervention on Medication Adherence and Disease related Knowledge among Patients with Low Health Literacy in Puerto Rico. *Journal of Pharmaceutical Care & Health Systems.* 2015 July; S3(001).
18. Díaz Sierra EC, Melin K. Clinical and Behavioral Impact of Pharmaceutical Care Services in Community Pharmacies in Puerto Rico. *Pharmaceutical Care & Health Systems.* 2014 October; S1(001).

TEXT BOOK CHAPTERS:

1. Melin K. Lippincott's Illustrated Reviews. 6 & 7 eds. Whalen K, editor. Philadelphia: Wolters Kluwer; 2018. Chapter 39, Drugs for Disorders of the Respiratory System; p.527-539.
2. Melin K, Maniscalco-Feichtl M. Medication Therapy Management. 1 & 2 eds. Whalen K, Hardin HC, editors. New York, NY: McGraw-Hill; 2018. Chapter 17, Chronic Obstructive Pulmonary Disease MTM Data Set.
3. Maniscalco-Feichtl M, Melin K. Medication Therapy Management. 1 & 2 ed. Whalen K, Hardin HC, editors. New York, NY: McGraw-Hill Education; 2018. Chapter 13, Asthma MTM Data Set.
4. Melin K. Lippincott's Illustrated Reviews. 6 ed. Whalen K, editor. Philadelphia: Wolters Kluwer; 2015. Chapter 17, Antihypertensives; p.225-240.

Select Presentations

Melin K, Moon JY, Qi Qibin, Duconge J, Hernandez-Suarez DF, Hua S, Gonzalez S, Zeng D, Kaplan RC. Prevalence of pharmacogenomic variants affecting the efficacy of clopidogrel therapy in the HCHS/SOL cohort. 2018. *Innovations in Pharmacy – Advances and Perspectives, Salamanca, Spain.*

Hernandez Suarez DF, Botton MR, Scott SA, Tomey MI, Villablanca PA, Melin K, Claudio KI, Renta JY, Lopez-Candales A, Duconge J. Pharmacogenetic study of clopidogrel in Caribbean Hispanics. 2018. 9th Santorini Conference of the European Society of Pharmacogenomics and Personalized Therapy (ESPT), Santorini, Greece.

Melin K, Hernandez Suarez DF, Duconge J. Prevalence of pharmacogenomic variants affecting the efficacy of clopidogrel therapy in US Hispanics. Puerto Rico Clinical and Translational Research Center 2018 Scientific Day, San Juan, PR.

Melin K, Obeng AO, Hernandez-Suarez DF, Scott SA, Duconge J. Pharmacogenomic determinants of clopidogrel failure. 2017. Research Centers in Minority Institutions (RCMI) Translational Science 2017, Washington, DC.

Melin K, Hernandez Suarez DF, Duconge J. Pharmacogenomic determinants in Caribbean Hispanics of clopidogrel failure in acute coronary syndrome. Association for Clinical and Translational Research Translational Science 2017, Washington, DC.

Melin K, Conte-Schmidt N, Hernandez-Munoz JJ, Martinez-Arroyo K, Rosa-Perez K, Soto-Aviles AE. Knowledge, perception, and motivation to use E-cigarettes in smokers and nonsmokers in Puerto Rico. International Pharmaceutical Federation 2016 World Congress, Buenos Aires, Argentina.

Melin K. Asthma-COPD Overlap Syndrome: Diagnosis and Treatment. Podium presentation. Ohio Pharmacists Association 2015 Midyear Meeting, Columbus, Ohio, November, 2015.

Melin K, Vélez SM, Jiménez FR, Maldonado WT. Assessment of Medication Therapy Management Services Provided by Clinical Faculty, Pharmacy Practice Residents, and Students in an Intramural Pharmacy Practice Clinic. Poster presentation. International Pharmaceutical Federation 2015 World Congress, Düsseldorf, Germany, September 2015.

Melin K, Asthma-COPD Overlap Syndrome. Podium presentation. Ohio Pharmacists Association CE at Sea Conference, San Juan, Puerto Rico, January 2015.

Quiles-Alves N, Melin K. Pharmacotherapy for Diabetes and Weight Management: Update 2014. Podium presentation. Cumbre de Obesidad, Diabetes, and Nutrición, San Juan, PR, November 2014.

Melin K, Avoiding Medication Errors in Geriatric Patients. Podium presentation. Maryland Pharmacists Association 132nd Annual Convention, Ocean City, Maryland, June 2014.

Wilson CL, Melin K. NASPA/NMA Student Pharmacist Self-Care Championship. Student competition and pharmacist CE presentation. Maryland Pharmacists Association 131st Annual Convention, Ocean City, Maryland, June 2013.

Melin K. MTM Pearls for Practice: Strategies to Perform a Medication Review via Telephonic Consult. Podium presentation. American Pharmacists Association Annual Meeting, Los Angeles, California, April 2013.

Melin KR. HIV and the Older Adult. Podium presentation. Maryland Pharmacists Association/Maryland Society of Consultant Pharmacists Mid-Year Meeting, Baltimore, Maryland, February 2013.

Wilson CL, Melin KR. NASPA/NMA Student Pharmacist Self-Care Championship. Student competition and pharmacist CE presentation. Maryland Pharmacists Association 130th Annual Convention, Ocean City, Maryland, June 2012.

Melin KR. Rheumatoid Arthritis and Community Practice. Podium presentation. Maryland Pharmacists Association 129th Annual Convention, Ocean City, Maryland, June 2011.