

CURRICULUM VITAE
EMILY JAYNE CICALI (SCHWARTZ)
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CONTACT INFORMATION

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EDUCATION AND POSTDOCTORAL TRAINING

2017 - 2018 **Pharmacogenetics Research Fellowship**
The University of Florida, College of Pharmacy, Gainesville, Florida
Mentor: Julie Johnson, PharmD

2015 - 2016 **PGY1 Pharmacy Residency: Geriatric Personalized Medicine & Targeted Therapeutics**
Tabula Rasa HealthCare, Moorestown, New Jersey
Mentor: Jacques Turgeon, BPharm, PhD

2011 - 2015 **Doctor of Pharmacy**
Philadelphia College of Pharmacy, University of the Sciences, Philadelphia, Pennsylvania

2009 - 2013 **Bachelor of Science in Pharmaceutical and Healthcare Studies**
Philadelphia College of Pharmacy, University of the Sciences, Philadelphia, Pennsylvania

LICENSURE AND BOARD CERTIFICATION

2018 - present **Board Certified Pharmacotherapy Specialist, #3158589**

2017 - present **Registered Pharmacist, State of Florida, #PS57420**

2020 - present **Florida Immunization Approval, #PS57420**

2015 - present **Registered Pharmacist, State of New Jersey, #28RI03725900**

2015 - present **New Jersey Immunization Approval, #28RJ06190**

PROFESSIONAL APPOINTMENTS

2023 – present **Residency Program Director, ASHP accredited Clinical Pharmacogenomics PGY2**
College of Pharmacy, University of Florida, Gainesville, Florida

2023 - present **Clinical Associate Professor**
College of Pharmacy, University of Florida, Gainesville, Florida

2020 - present **Assistant Director for Clinical Pharmacogenetics, The UF Health Precision Medicine Program**
University of Florida, Gainesville, Florida

2019 - 2020 **Editor-in-Training, *Clinical Pharmacology and Therapeutics***
American Society for Clinical Pharmacology and Therapeutics (ASCPT)

2018 - 2023 **Clinical Assistant Professor**
College of Pharmacy, University of Florida, Gainesville, Florida

2016 - 2017 **Adjunct Faculty**
Philadelphia College of Pharmacy, Philadelphia, Pennsylvania

PRACTICE EXPERIENCES

2022 – present **Clinical Director of MyRx, Pharmacogenetics Clinical Consultation Service**
University of Florida College of Pharmacy, Gainesville, Florida

2020 - 2022	Director of the UF Health Pharmacogenetics Clinical Consultation Service University of Florida, Gainesville, Florida
2016 - 2017	Clinical Research Pharmacist Tabula Rasa HealthCare, Moorestown, New Jersey
2015 - 2017	Independent Community Pharmacist (Per Diem) Hometown Pharmacy, Southampton, New Jersey

AWARDS

2023	2023 Award for Leadership , American Association of Colleges of Pharmacy (AACP)
2023	2023 Network and Community Engagement Award , ASCPT
2022	Outstanding Publication in Clinical Practice Innovation , UF College of Pharmacy [†]
2021	Exemplary Clinician Award , UF College of Pharmacy
2021	Innovation in Pharmacogenomics Teaching , AACP Pharmacogenomics Special Interest Group
2021	Outstanding Publication in Clinical Science Research , UF College of Pharmacy [†]
2020	Outstanding Publication in Clinical Practice , UF College of Pharmacy [†]

[†]Publications noted below in publication section

CERTIFICATIONS

2021	Pharmacy Leadership Development Program , University of Florida, College of Pharmacy
2020	Knowledge of the Fundamentals of Team Based Learning, Team-Based Learning Collaborative
2021 - 2023	American Red Cross CPR and AED
2016	Delivering MTM Services Certificate of Achievement , American Pharmacists Association (APhA)
2016	Teaching Certification , University of the Sciences
2014	Pharmacy-Based Immunization Delivery Certification , APhA

RESEARCH AND PROFESSIONAL PROJECTS

- 1. Co-Investigator** (Principal Investigator – Julio Duarte, PharmD)
Preemptive pharmacogenetic testing in medically underserved populations (TOPP-UP).
#IRB202101316. University of Florida, Gainesville, Florida
Funding Source: NIH, National Human Genome Research Institute; R01HG011800
- 2. Co-Investigator** (Local Principal Investigator - Julie Johnson, PharmD and Larisa Cavallari, PharmD)
Depression and Opioid Pragmatic Trials in Pharmacogenetics (ADOPT-PGx).
#CED000000367. University of Florida, Gainesville, Florida (Multisite pragmatic clinical trial)
Funding Source: NIH, National Human Genome Research Institute; U01 HG007269 (competitive renewal)
- 3. Co-Investigator** (Local Principal Investigator – Rhonda Cooper-DeHoff, PharmD)
Genetic testing to Understand and Address Renal Disease Disparities across the US (GUARDD-US).
#CED000000288. University of Florida, Gainesville, Florida (Multisite pragmatic clinical trial)
Funding Source: NIH, National Human Genome Research Institute; U01 HG007269 (competitive renewal)
- 4. Principle Investigator**
Determination if Pharmacogenetic Variants Explain High INR Values for UF Health In-Patients on Warfarin.
Funding: Awarded \$14,591 from UF Health Shands Quasi Endowment Funds
Quality Improvement Project, #1262. 9/1/21-8/31/22. University of Florida, Gainesville, Florida
- 5. Principle Investigator Faculty Advisor**
Impact of CYP2D6 inhibitors on opioid therapy in patients with pain. Retrospective Study.
#IRB201903494. University of Florida, Gainesville, Florida
- 6. Principle Investigator**
Expansion of the Pharmacogenetics (PGx) Consultation Clinic to Family Medicine
Funding: Awarded \$25,100 from UF Health Shands Quasi Endowment Funds. AWD07226.

Quality Improvement Project, #80. 6/1/2019 - 6/30/22. University of Florida, Gainesville, Florida
#IRB201902437; Physician knowledge, attitudes, and beliefs of pharmacogenetics in family practice.

7. Co-Investigator (Principal Investigator – Rhonda Cooper-DeHoff, PharmD).

A randomized pragmatic trial of genotype-guided supportive care in symptom treatment of cancer patients.
#IRB201901177. University of Florida, Gainesville, Florida

8. Postdoctoral Fellow Investigator (Local Principal Investigator – Larisa Cavallari, PharmD; James Franciosi, MD).

Implementing Genomics in Practice (IGNITE) Proof of Concept Study: CYP2C19 genotype-supported treatment of GERD and dyspepsia versus conventional treatment. #IRB201601774 University of Florida, Gainesville, Florida
Funding Source: NIH, National Human Genome Research Institute; U01 HG007269

PUBLICATIONS

Peer-Reviewed Biomedical Journals

1. Lemke LK[†], **Cicali EJ**, Williams R, Nguyen KA, Cavallari LH, Wiisanen K. Clinician Response to Pharmacogenetic Clinical Decision Support Alerts. *Clin Pharmacol Ther.* 2023 Dec;114(6):1350-1357.
2. Mosley SA^{*}, **Cicali EJ**^{*}, Del Cueto A, Portman DG, Donovan KA, Gong Y, Langae T, Gopalan P, Schmit J, Starr JS, Silver N, Chang YD, Rajasekhara S, Smith JE, Soares HP, Clare-Salzler M, Starostik P, George TJ, McLeod HL, Fillingim RB, Hicks JK, Cavallari LH. CYP2D6-guided opioid therapy for adults with cancer pain: A randomized implementation clinical trial. *Pharmacotherapy.* 2023 Sep 12. Epub ahead of print. ^{*}contributed equally
3. Norris M[†], Dalton R, Alam B, Eddy E, Nguyen KA, Cavallari LH, Sumfest J, Wiisanen K, Cicali EJ. Lessons from clinical implementation of a preemptive pharmacogenetic panel as part of a testing pilot program with an employer-sponsored medical plan. *Front Genet.* 2023 Aug 23;14:1249003.
4. Lemke LK[†], Alam B, Williams R, Starostik P, Cavallari LH, **Cicali EJ**^{*}, Wiisanen K^{*}. Reimbursement of pharmacogenetic tests at a tertiary academic medical center in the United States. *Front Pharmacol.* 2023 Aug 14;14:1179364. ^{*}contributed equally
5. Eken E[†], Estores DS, **Cicali EJ**, Wiisanen KK, Johnson JA. A Pharmacogenetics-Based Approach to Managing Gastroesophageal Reflux Disease: Current Perspectives and Future Steps. *Pharmgenomics Pers Med.* 2023 Jun 23;16:645-664.
6. **Cicali EJ**, Elchynski A, Thomas CD, Alam B, Dalton R, Davis R, Eken E, Estores D, Nguyen K, Cavallari LH, Wiisanen K. Implementation of CYP2C19 genotyping to guide proton pump inhibitor use at an academic health center. *Am J Health Syst Pharm.* 2023 Jul 21;80(15):994-1003.
7. Gawronski BE, **Cicali EJ**, McDonough CW, Cottler LB, Duarte JD. Exploring perceptions, knowledge, and attitudes regarding pharmacogenetic testing in the medically underserved. *Front Genet.* 2023 Jan 13;13:1085994.
8. **Cicali EJ**, Lemke L[†], Al Alshaykh H[†], Nguyen K, Cavallari LH, and Wiisanen K. 2022. How to Implement a Pharmacogenetics Service at your Institution. *Journal of the American College of Clinical Pharmacy.* 2022 Nov;5(11):1161-1175.
9. Cavallari LH, **Cicali EJ**, Wiisanen K, Fillingim RB, Chakraborty H, Myers RA, Blake KV, Asiyanbola B, Baye JF, Bronson WH, Cook KJ, Elwood EN, Gray CF, Gong Y, Hines L, Kannry J, Kucher N, Lynch S, Nguyen KA, Owusu Obeng A, Pratt VM, Prieto HA, Ramos M, Sadeghpour A, Singh R, Rosenman M, Starostik P, Thomas CD, Tillman T, Dexter PR, Horowitz CR, Orlando LA, Peterson JF, Skaar TC, Van Driest SL, Volpi S, Voora D, Parvataneni HK, and Johnson JA. 2022. Implementing a Pragmatic Clinical Trial to Tailor Opioids for Acute Pain on behalf of the IGNITE ADOPT PGx Investigators. *Clinical and Translational Science.* 2022 Jul 28. Epub ahead of print.
10. **Cicali EJ**, Wiisanen K; The Importance of Phenoconversion when Using CYP2D6 Genotype in Clinical Practice. *Pharmacogenomics.* 2022 Sep;23(14):749-752.
11. Eadon MT, Cavanaugh KL, Orlando LA, Christian D, Chakraborty H, Steen-Burrell KA, Merrill P, Seo J, Hauser D, Singh R, Beasley CM, Fuloria J, Kitzman H, Parker AS, Ramos M, Ong HH, Elwood EN, Lynch SE, Clermont S, **Cicali EJ**, Starostik P, Pratt VM, Nguyen KA, Rosenman MB, Calman NS, Robinson M, Nadkarni GN, Madden EB, Kucher N, Volpi S, Dexter PR, Skaar TC, Johnson JA, Cooper-DeHoff RM, Horowitz CR; GUARDD-US Investigators. Design and rationale of GUARDD-US: A pragmatic, randomized trial of genetic testing for APOL1 and pharmacogenomic predictors of antihypertensive efficacy in patients with hypertension. *Contemp Clin Trials.* 2022 Aug;119:106813.
12. Elchynski AL, Desai N, D'Silva D, Hall B, Marks Y, Wiisanen K, **Cicali EJ**, Cavallari LH, Nguyen KA. Utilizing a Human-

Computer Interaction Approach to Evaluate the Design of Current Pharmacogenomics Clinical Decision Support. *J Pers Med*. 2021 Nov 18;11(11):1227.

13. Duarte JD, Dalton R, Elchynski AL, Smith DM, **Cicali EJ**, Lee JC, Duong BQ, Petry NJ, Aquilante CL, Beitelshes AL, Empey PE, Johnson JA, Owusu Obeng A, Pasternak AL, Pratt VM, Ramsey LB, Tuteja S, Van Driest SL, Wiisanen K, Hicks JK, Cavallari LH; IGNITE Network Pharmacogenetics Working Group. Multi-site investigation of strategies for the clinical implementation of preemptive PGx testing. *Genet Med*. 2021 Dec;23(12):2335-2341.
14. **Cicali EJ**, Elchynski AL, Cook KJ, Houder JT, Thomas CD, Smith DM, Elsey A, Johnson JA, Cavallari LH, Wiisanen K. How to Integrate CYP2D6 Phenoconversion into Clinical Pharmacogenetics: A Tutorial. *Clin Pharmacol Ther*. 2021 Sep;110(3):677-687. † *Has accompanied publicly available phenoconversion calculator tool, [PROP™](#)
15. Elchynski AL[†], **Cicali EJ**, Ferrer Del Busto MC[†], Hamilton A[†], Chang KL, Schmidt SO, Weiner B, Davis R, Estores D, Max Smith D, Wiisanen K, Johnson JA, Cavallari LH. Determining the potential clinical value of panel-based pharmacogenetic testing in patients with chronic pain or gastroesophageal reflux disease. *Pharmacogenomics J*. 2021 Dec;21(6):657-663.
16. Nicol MR, **Cicali EJ**, Seo SK, Rao GG. The Complex Roadmap to Infectious Disease Innovation: The Intersection of Bugs, Drugs, and Special Populations. *Clin Pharmacol Ther*. 2021 Apr;109(4):793-796.
17. **Cicali EJ**, Cook KJ, Arwood MJ, Elchynski AL, Wiisanen K. Competency-Based Clinical Pharmacogenomics Activities during an Advanced Pharmacy Practice Experience. *J Am Coll Clin Pharm*. 2021; 4: 60– 70.
18. Claudio-Campos K[†], Padrón A, Jerkins G, Nainaparampil J, Nelson R, Martin A, Wiisanen K, Smith DM, Strekalova Y, Marsiske M, **Cicali EJ**, Cavallari LH, Mathews CA. Acceptability, Feasibility, and Utility of Integrating Pharmacogenetic Testing into a Child Psychiatry Clinic. *Clin Transl Sci*. 2021 Mar;14(2):589-598
19. Marrero RJ[†], **Cicali EJ**, Arwood MJ, Eddy E, DeRemer D, Ramnarain BH, Daily KC, Jones D Jr, Cavallari LH, Wiisanen KW, Langaee T, Newsom KJ, Starostik P, Clare-Salzer MJ, Johnson JA, George TJ, Cooper-DeHoff RM. How to Transition from Single Gene Pharmacogenetic Testing to Preemptive Panel-Based Testing: A Tutorial. *Clin Pharmacol Ther*. 2020 Sep;108(3):557-565.
20. **Cicali EJ**^{*}, Smith DM^{*}, Duong BQ, Kovar LG, Cavallari LH, Johnson JA. A Scoping Review of the Evidence Behind CYP2D6 Inhibitor Classifications. *Clin Pharmacol Ther*. 2020 Jul;108(1):116-125. ^{**†}
^{*}contributed equally ^{**}Led to changes in the [FDA Table of Clinical Inhibitors](#)
21. Bain KT, McGain D, **Cicali EJ**, Knowlton CH, Michaud V, Turgeon J. Precision medication: An illustrative case series guiding the clinical application of multi-drug interactions and pharmacogenomics. *Clin Case Rep*. 2019 Dec 23;8(2):305-312.
22. **Cicali EJ**, Weitzel KW, Elsey AR, Orlando FA, Vinson M, Mosley S, Smith DM, Davis R, Drum L, Estores D, Franciosi JP, Hagen MG, Jerkins GJ, Mercado ES, Nainaparampil J, Padron A, Rosenberg EI, Wright A, Schmidt SO, Mathews CA, Cavallari LH, Johnson JA. Challenges and lessons learned from clinical pharmacogenetic implementation of multiple gene-drug pairs across ambulatory care settings. *Genet Med*. 2019 Oct;21(10):2264-2274.[‡]
23. Orlando LA, Voils C, Horowitz CR, Myers RA, Arwood MJ, **Cicali EJ**, McDonough CW, Pollin TI, Guan Y, Levy KD, Ramirez A, Quittner A, Madden EB. IGNITE network: Response of patients to genomic medicine interventions. *Mol Genet Genomic Med*. 2019 May;7(5):e636.
24. **Cicali EJ**, Blake K, Gong Y, Mougey EB, Al-Atrash H, Chambers N, Denham J, Evans J, George DE, Gomez R, Palomo P, Taufiq S, Johnson JA, Lima JJ, Franciosi JP. Novel Implementation of Genotype-Guided Proton Pump Inhibitor Medication Therapy in Children: A Pilot, Randomized, Multisite Pragmatic Trial. *Clin Transl Sci*. 2019 Mar;12(2):172-179.
25. Bain KT, **Schwartz EJ**, Knowlton OV, Knowlton CH, Turgeon J. Implementation of a Pharmacist-Led Pharmacogenomics Service for PACE (PHARM-GENOME-PAE). *J Am Pharm Assoc*. 2018 May - Jun;58(3):281-289.e1.
26. **Schwartz EJ**, Turgeon J, Patel J, Patel P, Shah H, Issa AM, Knowlton OV, Knowlton CH, Bain KT. Successful Implementation of a Standardized Medication Therapy Management Plus Approach within a Primary Care Setting. *J of Amer Board of Family Medicine*. 2017 November-December; 30: 701-14.

27. Bain KT, **Schwartz EJ**, Chan-Ting R. Reducing Off-Label Antipsychotic Use in Community-Dwelling Older Adults with Dementia: A Narrative Review. *J Am Osteopath Assoc*. 2017 July; 117:441-50.
28. **Schwartz EJ**, Issa AM. The Role of Hospital Pharmacists in the Adoption and Use of Pharmacogenomics and Precision Medicine. *Per Med*. 2017 Jan; 14(1).

†Denotes student and/or post-doctoral trainee whom I mentored on publication

#Denotes publication with the outstanding publication in clinical practice award

Book Chapters

1. **Cicali EJ**, Cook KJ. Chapter 48: Pharmacogenomics. In: Whalen K, Lerchenfeldt S, Giordano C, editors. Lippincott's Illustrated Reviews – Pharmacology (8th ed). Philadelphia, PA: Lippincott Williams & Wilkins; 2023.pp 7728-48. [In Press]
2. **Cicali EJ**, Mosley SA, Cavallari LH. Pharmacogenetics. In: Wecker L, Taylor DA, Theobald RJ. Brody's Human Pharmacology. 7th ed. Elsevier Inc: Philadelphia 2022. Pp. 39-46. [In Press]
3. Petry NJ, Roosan, MR, **Cicali EJ**, Duarte JD. Implementation: A Guide to Implementing Pharmacogenomics Service. In: Lam JT, Gutierrez MA, Shah S (eds). Pharmacogenomics: A Primer for Clinicians textbook. 1st ed. McGraw-Hill Companies, Inc: New York, 2021. pp. 19-38.

Non-Refereed

1. Cicali EJ, Randles H. FSHP Ambulatory Care Fast 5 - Pharmacogenomics. May 2021.
2. Arwood MJ*, **Cicali EJ***, Melloy LJ*, Schuh M*. [FSHP Position Statement: Clinical Pharmacogenomics](#). 2019.
*contributed equally
3. **Schwartz EJ**, Steffen LE. FDA Monitors Drug Safety & Long QT. *PACE Pharmacy Pages* March 2017;3.
4. Bain KT, **Schwartz EJ**, Shah N. The Hefty Price of Hepatitis C Treatment: Can Pharmacogenomics Provide any Relief? *PACE Pharmacy Pages* April 2016;3-5.
5. **Schwartz EJ**, Bain KT. More Evidence Links Anticholinergic Burden with Poor Outcomes: Summary of New Evidence. *PACE Pharmacy Pages* October 2015;2-3.

ABSTRACTS AND SCIENTIFIC PRESENTATIONS

1. Rivera R, Norris M, Wiisanen K, **Cicali EJ**. Patient satisfaction with a pharmacist-led pharmacogenetic consult clinic. Poster presented ASHP Midyear Clinical Meeting 2023. Anaheim, CA. December 2023.
2. Valentin-Shawver D, Dragoljevic B, Hook M, McKenna E, Nguyen A, Cavallari L, Wiisanen K, Nguyen K, Elchynski A, **Cicali EJ**. Evaluation of Prescriber Responses to Thiopurine Methyltransferase (TPMT) Pre-test Alerts at the University of Florida Health Shands Hospital. ASHP Midyear Clinical Meeting. Anaheim, CA. December 2023.
3. Gawronski BE, Cicali EJ, McDonough CW, Cottler LB, Duarte JD. Perceptions and attitudes of pharmacogenetic testing in the medically underserved. Poster presentation at the Pharmacogenomics Research Network (PGRN) Annual Meeting, Memphis, TN. June 12th 2023.
4. Rivera R[†], Norris M, Wiisanen K, **Cicali EJ**. Patient satisfaction with a pharmacist-led pharmacogenetic consult clinic. Poster at University of Florida College of Pharmacy 36th Annual Research Showcase. February 6th, 2023. Poster 18.
5. Lemke L[†], **Cicali EJ**, Alam B, Starostik P, Cavallari L, Wiisanen K. Reimbursement of Pharmacogenetic Tests at UF Health. Poster presentation at the Clinical Pharmacogenetics Implementation Consortium (CPIC)-Pharmacogenomics Research Network (PGRN) Annual Meeting, Denver, CO. May 10th 2022.
6. Lteif C, Cavallari LH, **Cicali EJ**, Wiisanen K, Farrer M, Starostik P, Duarte JD. Development of a Low-Cost, Ancestrally Inclusive Pre-Emptive Pharmacogenetic Testing Panel Designed to Inform Commonly Used Pharmacogenetic Drugs. Poster presentation at the Clinical Pharmacogenetics Implementation Consortium (CPIC)-Pharmacogenomics Research Network (PGRN) Annual Meeting, Denver, CO. May 10th 2022.
7. Lemke L[†], **Cicali EJ**, Nguyen K, Cavallari LH, Wiisanen K. Clinician Response to Active Pharmacogenetic Clinical Decision Support Alerts. Virtual poster presentation at the American Society of Health-System Pharmacists (ASHP) Midyear 2021 Clinical Meeting & Exhibition. December 8th, 2021.
Encore poster presentation at UF College of Pharmacy 35th Annual Research Showcase. Feb 8th, 2022.
8. Al Shaykh H[†], **Cicali EJ**, Huber KJ, Cavallari LH, Wiisanen K. Concordance of Drug Therapy Post-Genotype with

Guideline Recommendations in Patients Seen in a Pharmacogenetics Consult Clinic. Virtual poster presentation at ASHP Midyear 2021 Clinical Meeting & Exhibition. December 8th, 2021.

Encore poster presentation at UF College of Pharmacy 35th Annual Research Showcase. Feb 8th, 2022.

9. Dragoljevic B[†], Elchynski AL[†], Nguyen K, Cavallari LH, Wiisanen K, **Cicali EJ**. Effect of TPMT pharmacogenetic post-test alerts on dose adjustments of thiopurines for malignant and non-malignant conditions at University of Florida (UF) Health Shands. Virtual poster presentation at ASHP Midyear Clinical Meeting. December 7th, 2021.
10. Alam B[†], Lucke-Wold B, Laurent D, Elchynski AL, **Cicali EJ**, Wiisanen K, Cavallari LH, Hoh BL. Correlation of platelet reactivity testing and CYP2C19 metabolizer status in patients undergoing endovascular neurosurgical procedures. Poster with Oral Presentation at the Congress of Neurologic Surgeons Annual Meeting. October 19, 2021.
11. Lemke LK^{**}, Al Alshaykh H^{**}, Alam B, **Cicali EJ**, Hicks JK, Starostik P, Johnson JA, Cavallari LH, Wiisanen K. Medicare Coverage of Pharmacogenomic Testing: An Overview of the Current Landscape. Virtual poster presentation at Pharmacogenomics Research Network (PGRN) - American Society of Human Genetics (ASHG) 2021 Symposium and Posters. October 18, 2021. ^{*Contributed equally}
12. Galvez-Peralta M, Cropp CD, Ham A, Hoyer JD, Petry NJ, Roosan MR, Gammal RS, Kinney S, Ward KM, Brazeau D, Berenbok LA, Lee Y, Iwuchukwu O, **Cicali EJ**, Kisor DF. Development of an Open-Access Pharmacogenomics Patient Case Repository for Pharmacy Educators. Virtual Poster Presentation at the 2021 American Association of Colleges of Pharmacy (AACP) Annual Meeting. July 19-22, 2021.
13. Norris M[†], Alam B[†], **Cicali EJ**, Duarte J, Eddy E, Nguyen K, Sumfest J, Cavallari LH, Wiisanen K. Clinical implementation of a pre-emptive pharmacogenetic panel testing pilot program. Poster presentation at the American College of Clinical Pharmacy (ACCP) Virtual Poster Symposium. May 25-26, 2021.
14. Norris M[†], Bartlett B[†], Kovar L, Smith M, **Cicali EJ**. Literature review of potential CYP2D6 inhibitors and their classifications. Virtual poster at University of Florida College of Pharmacy 34th Annual Research Showcase. Zoom. April 13, 2021. Poster 78.
15. Dragoljevic B[†], Hook M[†], McKenna E[†], Nguyen A[†], Valentin D[†], Cavallari L, Wiisanen K, Nguyen K, Elchynski A, **Cicali EJ**. Evaluation of prescriber responses to TPMT pre-test alerts at UF Health Shands Hospital. Virtual poster at University of Florida College of Pharmacy 34th Annual Research Showcase. Zoom. April 13, 2021. Poster 97.
16. **Cicali EJ**, Elwood E, Elchynski A, Rattanasuwan T, Cook KJ, Alam B, Nguyen K, Elsey A, Cavallari LH, Johnson JA, Wiisanen K. The University of Florida Health Precision Medicine Program: a 10-Year Look Back. *Clin Pharmacol Ther.* 2021;109: S50. (PII-020). Virtual poster presentation at American Society of Clinical Pharmacology and Therapeutic 2021 Annual meeting. March 8-17, 2021.
17. Elchynski A[†], Hurst N[†], Ferrer Del Busto M[†], Hamilton A[†], Smith D, Chang K, Schmidt S, Weiner B, Davis R, Estores D, Johnson J, Wiisanen K, Cavallari L, **Cicali EJ**. Comparison of primary care and specialty providers prescribing decisions when pharmacogenetic test results are available. *Clin Pharmacol Ther.* 2021;109: S51. (PIII-023). Virtual poster presentation at American Society of Clinical Pharmacology and Therapeutic 2021 Annual meeting. March 8-17, 2021.
18. Nahid N[†], **Cicali EJ**, McDonough C, Gong Y, Johnson JA. Impact of CYP2D6 Inhibitors on Opioid Therapy in Patients with Pain. *Clin Pharmacol Ther.* 2021;109: S39. (PII-037). Virtual poster presentation at American Society of Clinical Pharmacology and Therapeutic 2021 Annual meeting. March 8-17, 2021.
19. Alam B[†], Lucke-Wold B, Laurent D, Elchynski AL, **Cicali EJ**, Wiisanen K, Cavallari LH, Hoh BL. Correlation of platelet reactivity testing and CYP2C19 metabolizer status in patients undergoing endovascular neurosurgical procedures. Virtual poster presentation at 8th Annual UF Health Shands Stroke Conference. March 4, 2021.
20. Hurst N[†], Elchynski AL[†], Smith DM, Chang K, Schmidt S, Wiisanen K, Johnson JA, Cavallari LH, **Cicali EJ**. Clinical use of CYP2D6 genotyping to guide opioid prescribing for chronic pain in patients taking tramadol and/or codeine. Virtual poster presentation at American Society of Health-System Pharmacists (ASHP) Midyear Clinical Meeting. Virtual. December 8, 2020.
Poster also presented at University of Florida College of Pharmacy 33rd Annual Research Day. Gainesville FL. February 10, 2020.
21. Hamilton AL[†], Elchynski AL[†], Smith M, Weiner B, Davis R, Estores D, Wiisanen K, Johnson J, Cavallari L, **Cicali EJ**.

Quantifying the impact of CYP2C19 genotyping in Proton Pump Inhibitors prescribing decisions. Virtual poster presentation at ASHP Midyear Clinical Meeting. Virtual. December 8, 2020.

Poster also presented at University of Florida College of Pharmacy 33rd Annual Research Day. Gainesville FL. February 10, 2020.

22. Alam B[†], **Cicali EJ**, Elchynski A, Cook KJ, Elwood E, Rattanasuwan T, Nguyen K, Elsey A, Cavallari LH, Johnson JA, Wiisanen K. Evaluation of genotype-guided medication changes in a health system with pharmacy specialist support. Virtual poster presentation at Pharmacogenomics Research Network (PGRN) Annual Meeting. Zoom. October 26, 2020. Poster 55. *Honorable mention received.
23. **Cicali EJ**, Cook KJ, Arwood MJ, Staley B, Thomas C, Dalton R, Elsey A, Cavallari LH, Johnson JA, Cooper-DeHoff R, Wiisanen K. Development of Standardized Clinical Resources to Support Implementation of a Preemptive Pharmacogenomics Testing Panel. *Clin Pharmacol Ther*. 2020;107: S57. (PII-079). *Top poster award at the American Society of Clinical Pharmacology and Therapeutic 2020 Annual meeting. Houston TX. March 18-21, 2020. (Canceled; COVID-19)
24. Elchynski AL[†], **Cicali EJ**, Chang KL, Nys C, Elsey AR, Johnson JA, Wiisanen KW, Schmidt SO, Cavallari LH. Determining the Potential Value of Panel-Based Pharmacogenetic Testing in a Chronic Pain Population. *Clin Pharmacol Ther*. 2020;107: S56. (PII-078). Poster presentation at the American Society of Clinical Pharmacology and Therapeutic 2020 Annual meeting. Houston TX. March 18-21, 2020. (Canceled; COVID-19)
25. Ferrer MC[†], Elchynski A[†], Chang KL, Schmidt S, Smith MD, Wiisanen K, Johnson J, **Cicali EJ**, Cavallari LH. Clinical relevance of panel-based pharmacogenetic testing in drug prescribing. Poster presentation at University of Florida College of Pharmacy 33rd Annual Research Day. Gainesville FL. February 10, 2020.
26. **Cicali EJ**, Cook KJ, Smith DM, Elchynski A, Johnson, JA, Cavallari LH, Wiisanen K. Development of an algorithm to calculate clinical CYP2D6 phenoconversion in practice. *JACCP*. 2020; 3(1):145-391. (#350). Poster presentation at the American College of Clinical Pharmacy 2019 Annual Meeting. New York, New York. October 26-29, 2019.
27. Melloy K[†], **Cicali EJ**, Staley B, Cooper-DeHoff RM, Wiisanen K. A Systematic approach to designing pharmacogenetic clinical decision support for medication classes affected by multiple genes. Poster presentation at the Clinical Pharmacogenetics Implementation Consortium (CPIC) Open meeting. Memphis TN. June 6-7, 2019.
28. Smith DM, **Cicali EJ**, Duong BQ, Kovar L, Cavallari LH, Johnson JA. Assessing the evidence behind CYP2D6 inhibitor classifications; a systematic review. *JACCP*. 2018;1(2):122-353. (#47411). Poster presentation at the American College of Clinical Pharmacy 2018 Annual Meeting. Seattle, Washington. October 20-23, 2018.
29. **Schwartz EJ**, Mougey EB, Chambers NA, Denham JM, Al-Atrash H, Gomez RA, Palomo PJ, Taufiq S, George DE, Evans J, Gong Y, Blake KV, Johnson JA, Lima JJ, Franciosi JP. Novel Implementation of Genotype-Guided Proton Pump Inhibitor Therapy in Children: A Pilot, Randomized, Multi-Site Pragmatic Trial. *Clin Pharmacol Ther* 2018;103:S16. (LB-003). Late breaking abstract presentation at the American Society of Clinical Pharmacology and Therapeutic 2018 Annual meeting. Orlando FL. March 21-24 2018.
30. **Schwartz EJ**, Patel J, Patel P, Shah H, Issa AM, Turgeon J, Knowlton OV, Knowlton CH, Bain KT. Implementing a Standardized Medication Therapy Management Plus Approach Within a Primary Care Setting. *Clin Pharmacol Ther* 2017;101:S45. (PI-097). Poster presentation at the American Society of Clinical Pharmacology and Therapeutic 2017 Annual meeting. Washington DC. March 15-18 2017.
31. Cicali B, Badea G, Steffen L, Bain KT, **Schwartz EJ**, Knowlton CH, Turgeon J. The application of a novel medication risk stratification tool to identify high risk patients within a large population. *Clin Pharmacol Ther* 2017;101:S60. (PII-026). Poster presentation at the American Society of Clinical Pharmacology and Therapeutic 2017 Annual meeting. Washington DC. March 15-18 2017.
32. Bain KT, **Schwartz EJ**, Turgeon J. Implementation of a pharmacist-led pharmacogenomics service for the Program of All-inclusive care for the elderly (PHARM-GENOME-PACE). *Pharmacotherapy* 2017; 37(12):e202. (#278E). Poster presentation at the American College of Clinical Pharmacy 2017 Annual Meeting. Phoenix, Arizona. October 7-10, 2017.
33. Bain KT, Knowlton CH, Knowlton OV, **Schwartz EJ**, Dunning J. Implementation of a Pharmacist-Led Pharmacogenomic Service for PACE. *J Am Pharm Assoc*. 2016; 56:e99 (#303). Poster presentation at the American

Pharmacists Association 2016 Annual Meeting. Baltimore, MD. March 4-7 2016.

34. **Schwartz EJ**, Issa AM. National Survey of Pharmacists' Roles in Clinical Pharmacogenomics: Assessment of Predictors. *Pharmacoepidemiology and Drug Safety*. 2015; 24:194-5. (#347)

[†]Denotes student and/or post-doctoral trainee

PROFESSIONAL PRESENTATIONS

Invited Presentations

1. *Sharing, Managing, and Patient Counseling for Direct to Consumer Results*. The Clinical Pharmacogenetics Implementation Consortium (CPIC) - Pharmacogenomics Research Network (PGRN) Annual Meeting, Denver, CO. May 11th 2022.
2. *CYP2D6 Inhibitors*. PharmTalks at University of Florida College of Pharmacy. April 19th, 2022.
3. *A Pharmacogenomics Patient Case Repository for Pharmacy Educators*. American Association of Colleges of Pharmacy (AACP). Webinar. Dec 10 2021.
4. *Pharmacogenomics in the Era of Unsolicited Genomic Results: The approach to caring for patients presenting with direct-to-consumer or outside laboratory pharmacogenomics results*. 2021 Annual American College of Clinical Pharmacy (ACCP) Meeting; PK/PD/PG PRN session. Virtual. October 2021.
5. *Competency-Based Clinical Pharmacogenomic Activities during an APPE – Episode 48*. ACCP Journals. Podcast. February 4 2021.
6. *Clinical Pharmacogenetics Services within UF Health*. PharmTalks at University of Florida College of Pharmacy. October 20 2020.
7. *Challenges and Lessons Learned from Clinical Pharmacogenetic Implementations*. GTMRx Institute. Webinar. June 9 2020.
8. *The Role of a Pharmacogenomics (PGx) Pharmacist at University of Florida*. PGx Elective Course at Concordia University Wisconsin (CUW) School of Pharmacy. Interactive webinar via Zoom (coronavirus). April 2020.
9. Co-presenter: *Know the Score on Activity Scores: Applications for Patient Care in Clinical Pharmacogenomics*. 5th Annual Precision Medicine Conference. Orlando, Florida. February 2020.
10. *From Theory to Practice: Approaches to Experiential Education in Pharmacogenomics*. American Association of Colleges of Pharmacy (AACP). Webinar. December 2019.
11. Co-presenter: *UF Health Precision Medicine Program*. American Society of Health-System Pharmacists (ASHP). Webinar. November 2019
12. *Precision Medicine at University of Florida*. LabCorp Pharmacogenomics Business Advisory Team. WebEx. June 2019.
13. *Pharmacogenomics Seminar*. University of Houston College of Pharmacy, local chapter of the American College of Clinical Pharmacy. Houston, Texas. April 2019.

International Conferences

1. *Results of a Pharmacist-Led Pharmacogenomics Service for Community-Based Frail Elderly*. 76th International Pharmaceutical Federation, Buenos Aires, Argentina. August 2016.

National Conferences

1. Ayyar VS, **Cicali EJ**, Manchandani P, Okour M, Tortorici M, Wang YC. Influencing Decision Makers: Real-time Dialogs with Case Studies. Presentation at the American Society of Clinical Pharmacology and Therapeutic 2021 Annual meeting. March 15, 2021.
2. Cicali EJ, Wiisanen K. *Developing and Implementing a Competency-Based Clinical Pharmacogenomics Advanced Pharmacy Practice Experience (APPE)*. American Association of Colleges of Pharmacy 2020 Annual Meeting. Online, secondary to COVID-19. July 13-31, 2020
3. *Utilizing a Clinical Decision Support System and Pharmacogenomics to Create a Medication Therapy Management Plus Service*. Health Datapalooza, Washington, District of Columbia. April 2017.
4. *Pharmacy Topics II: Implementing Multi-Gene PGx Testing in PACE*. National Pace Association Annual Conference,

San Francisco, California. October 2016.

Regional/Local

1. *Pharmacogenetic Testing for GI Patients*. UF Health Jacksonville GI grand rounds. Zoom. Dec 1 2021
2. *Role as a Clinical Pharmacogenetics Specialist*. APhA Student chapter, Gainesville, FL. November 13th 2020.
3. *Clinical Pharmacogenetics within UF Health*. Precision Health Forum, Gainesville, FL. September 1st 2020.
4. *Innovative Teaching Approach: Clinical Application of Pharmacogenetics*. Dean's Leadership Council Meeting. Orlando, FL. November 2018.
5. *Pharmacogenetic Guided Dosing of Proton Pump Inhibitors*; CE presentation. University of Florida, Gainesville, FL. September 2018
6. *Pharmacogenetic Implementations in Specialty Pediatric Clinics*. IGNITE Meeting, Silver Springs, Maryland. April 2018.
7. *CYP2D6 and Opioids: Education for the Prescriber*. PACE primary care team at St. Francis LIFE, Wilmington, Delaware. April 2017.
8. *Psychiatric Disorders: Sleep Disturbances*. CE presentation. Tabula Rasa HealthCare University. Moorestown, New Jersey. 2017
9. *Endocrine Disorders: Thyroid Function*. CE presentation. Tabula Rasa HealthCare University. Moorestown, New Jersey. 2017
10. *Geriatric Personalized Medicine Cases*. Pharmacists participating in Medication Risk Mitigation Certificate Training Program at Tabula Rasa HealthCare, Moorestown, New Jersey. December 2016
11. *Pharmacogenomics, Module 8*. CE presentation. Tabula Rasa HealthCare University. Moorestown, New Jersey. 2016
12. *CYP2D6: Relevance of PGx Testing for a Series of Drugs*. CE presentation. Tabula Rasa HealthCare University. Moorestown, New Jersey. 2016
13. *Atrial Fibrillation part 2*. CE presentation. Tabula Rasa HealthCare University. Moorestown, New Jersey. 2016
14. *Developing Perspectives on PGx: Definitions, Techniques, and Basic Concepts*. CE presentation. Tabula Rasa HealthCare University. Moorestown, New Jersey. 2016
15. *Venous Thromboembolism (VTE): Treatment & Prevention*. PACE primary care team at Mercy LIFE Broad St, Philadelphia, Pennsylvania. June 2016.
16. *Pharmacogenomics: Developing Perspectives and Obtaining Updates*. CE presentation. University of the Sciences. Philadelphia, Pennsylvania. June 2016.
17. *Discontinuing Medications in Geriatric Populations: Focus on Statins*. PACE primary care team at LIFE UPenn, Philadelphia, Pennsylvania. January 2016.
18. *Updated Beers Criteria for Older Adults: The 2015 American Geriatrics Society Beers Criteria* Web-based webinar available to PACE program staff at CareKinesis, Moorestown, New Jersey. December 2015.

TEACHING EXPERIENCES

Didactic

2020 - present	PHA5132: Principles of Drug Therapy and Individualization , University of Florida (P1s)
2018 - present	PHA5012: Clinical Application of Personalized Medicine , University of Florida (P2 & P3s)
2019 - present	PHA5166L: Skills Lab , University of Florida (P3s)
2020 - present	PHA5784: Patient Care 4 , University of Florida (P2s)
2020 - present	PHA5786: Patient Care 8 , University of Florida (P3s)
2020 - present	PHA5519: Advanced Topics in Anticoagulation Pharmacotherapy , University of Florida (P2 & P3s)

2017 **PP541: Pharmacogenomics Elective**, Philadelphia College of Pharmacy (P2 & P3s)
2015 - 2016 **PP569: Clinical pharmacokinetics**, Philadelphia College of Pharmacy (P2s)

Precepting Experiences

Post-Doctoral Trainees

2018 – 2022 **Clinical Pharmacogenomics PGY2 Residency**, University of Florida
2021-2022 Lauren Lemke, PharmD, BCPS (University of Minnesota – Twin Cities) First position: Clinical Pharmacogenomics Specialist, Lifespan Health System, Providence, Rhode Island
Hana Al Alshaykh, PharmD (Medical University of South Carolina) First position: Clinical Pharmacogenomics Pharmacy Specialist, King Faisal Specialist Hospital and Research Centre, Riyadh, Saudi Arabia
2020-2021 Benish Alam, PharmD (University of Illinois at Chicago College of Pharmacy)
2018-2019 Kelsey Cook, PharmD, BCPS (University of North Carolina Eschelman School of Pharmacy) First position: Clinical Assistant Professor, University of Florida College of Pharmacy
2019 – Present **Pharmacogenomics Clinical Fellowship**, University of Florida
2023 - present Madeline Norris, PharmD (University of Florida College of Pharmacy)
2022 - present Eda Eken, PharmD (University of Florida College of Pharmacy)
2019 – 2021 Amanda Elchynski, PharmD (University of South Florida College of Pharmacy) First position: Pharmacogenomics Coordinator, Arkansas Children's Hospital
2016 – 2017 **Geriatric Personalized Medicine PGY1 Residency**, Tabula Rasa HealthCare
Sabina Kaminski, PharmD (Philadelphia College of Pharmacy) First position: Pharmacovigilance Clinical Pharmacist, Tabula Rasa HealthCare, New Jersey
David McGain, PharmD (Jefferson College of Pharmacy)

PharmD Students Honors Thesis

2022 - 2024 Rebeca Rivera Rosado, PharmD Candidate 2024; *Patient satisfaction with a pharmacist-led pharmacogenetic consult clinic*
2022 – 2023 Megan Mizusawa, PharmD Candidate 2023; *Impact of CYP2C19 and CYP2D6 Genotyping in Selective Serotonin Reuptake Inhibitor Prescribing Decisions.*
2021 - 2023 Maddie Norris, PharmD Candidate 2023; *Clinical Implementation of a Preemptive Pharmacogenetic Panel Testing Pilot Program*
2020 – 2023 Nikita Shahidadpury, PharmD Candidate 2023; *Impact of Pharmacist Consult Notes on Prescriber Antiplatelet Therapy Decisions*
2021 – 2022 Božana Dragoljević, PharmD Candidate 2022; *Effect of TPMT Pharmacogenetic Post-Test Alerts on Thiopurine Dose Adjustments for Malignant and Non-malignant Conditions at UF Health*

APPE Students

2019 - present **Precision Medicine Rotation**, University of Florida (n~16/year)
2016 - 2017 **Geriatric Personalized Medicine; Pharmacoinformatic**, Tabula Rasa HealthCare (n=8)

IPPE Students

2016-2017 **Personalized Medicine Internship**, Tabula Rasa HealthCare (n=3)
2016-2017 **Geriatric orientation**, Mercy LIFE West Philadelphia (n=40)

PROFESSIONAL ORGANIZATIONS AND POSITIONS

2020 – present **Florida Society of Health-System Pharmacists (FSHP)**
2020 - 2021 Member, Ambulatory Care Committee
2019 – present **American Association of Colleges of Pharmacy (AACP)**
2019 - present Member, Pharmacogenomics Special Interest Group
2020 - present Co-chair, Committee for PGx Cases within the Pharmacogenomics Special Interest Group

2017 – present 2017 - present	American College of Clinical Pharmacy (ACCP) Member, PK/PD/PG PRN
2016 – present 2019 - 2020	Clinical Pharmacogenetics Implementation Consortium (CPIC) Member, CYP2C9 Allele Function Assignment Working Group, which led to being a contributor of ‘Assigning CPIC Allele Clinical Function and Translating Diplotypes to Phenotypes Standard Operating Procedure’
2015 – present 2022 - present 2021 – 2022 2020 - 2022 2019 - present 2019 - present	American Society of Clinical Pharmacology and Therapeutics (ASCPT) Chair, Early Career Community (ECC) Vice Chair, ECC ECC Representative within the Translational and Precision Medicine Network Member, Membership Outreach Steering Committee for PGx Community Member, Programming Steering Committee for PGx Community
2015 – present 2023 - present 2020 - present	Pharmacogenomics Research Network (PGRN) Co-chair, Education Committee Member, Education Committee

SERVICE

Professional Service

2023 – present	Editorial Board Member, Review Editor, <i>Frontiers in Pharmacology</i> Journal
2021 – present	Editorial Board Member, <i>ASCPT Clinical Pharmacology and Therapeutics</i> Journal
2020 - 2021	Letter of Intent and CV Reviewer, ACCP Service for Students
2018 - 2020	Volunteer Pharmacist, Grace Pharmacy, Gainesville, FL
2018 - present	Manuscript Reviewer, <i>Journal of Pharmacogenomics; AJHP; Frontier in Genetics; Pharmacogenomics and Personalized Medicine; Pharmacogenetics and genomics</i>

University Service

2019 - present	Assessment Committee, College of Pharmacy, University of Florida
2019 – 2020	ACPE Self-Study, Assessment (standards 24 and 25), College of Pharmacy, University of Florida
2018 - present	Academic and Professional Standards Committee, College of Pharmacy, University of Florida
2018 - 2020	Curriculum Committee, College of Pharmacy, University of Florida
2019, 2022	Faculty Search Committee, College of Pharmacy, University of Florida