

Daniel James Crona, PharmD, PhD, CPP

Address of Laboratory Investigation

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Address of Clinical Investigation

UNC Hospitals and Clinics
University of North Carolina Medical Center
101 Manning Drive
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Education

- Aug 2010–April 2015** **Doctor of Philosophy**
University of North Carolina Eshelman School of Pharmacy, Chapel Hill North Carolina
Division of Pharmacotherapy and Experimental Therapeutics (DPET) and the
UNC Center for Pharmacogenomics and Individualized Therapy (CPIT)
Clinical and Translational Research track
- Aug 2006–May 2010** **Doctor of Pharmacy**
University of Colorado Health Sciences Center School of Pharmacy, Denver Colorado
Graduated: May 2010 (Graduated with Highest Distinction and Research Honors)
- Jan 2004–May 2006** **Bachelors of Science in Biology**
University of Colorado Denver, Denver Colorado
Graduated: May 2006 (*Cum Laude* and with Degree Honors in Molecular Biological Research)
- Aug 1993–May 1998** **Bachelors of Arts in History and Spanish**
Monmouth College, Monmouth Illinois
Graduated: May 1998 (*Cum Laude* and with Departmental Degree Honors in History/Spanish)

Licensure

- Jan 2018 –present** **Clinical Pharmacist Practitioner (CPP) in North Carolina**
License number: 700116
- Jan 2011–present** **Registered Pharmacist in North Carolina**
License number: 21592

Training and Certifications

- March 2017–Sept 2017** **ASCO/HOPA APP Certificate Program**
American Society of Clinical Oncology (ASCO) University and Hematology/Oncology
Pharmacists Association (ACPE Accreditation) Advanced Practice Provider Certificate Program;
Certificates 101 and 102 completed in September 2017
- Sept 2014** **The Hamner Institute for Health Sciences PBPK Certificate Course**
Physiologically Based Pharmacokinetic (PBPK) Modeling and its Applications
Completed: 09/2014
- Sept 2011–April 2012** **NIH Clinical Center Certificate in Clinical Pharmacology**
National Institutes of Health Clinical Center certificate for participation in the
NIH “Principles in Clinical Pharmacology” course
Completed: 04/2012
- June 2011–Aug 2011** **TIBBS Teaching Certificate**
University of North Carolina School of Medicine Training Initiative in Biomedical and
Biological Sciences (TIBBS) Summer Teaching and Pedagogy program
Completed: 08/2011
- Mar 2007–present** **APhA Certified Immunizer**
American Pharmaceutical Association (APhA) Pharmacy Immunization Delivery Program
Completed: 03/2007

Aug 2006–present **CPR and Basic Life Support Certification**
American Heart Association Certification Program
Completed: 08/2006, 09/2008, 09/2010, 12/2012, 12/2014, 12/2016, 12/2018

Professional Experience and Appointments

Jan 2018–Present **Implementing Genomics In Science (IGNITE)**
Affiliate Member
CYP2D6 Research and Implementation Working Group

Aug-2017–Present **UNC Chromatin and Epigenetics Program**
Faculty Member

Nov 2016–Present **Pharmacogenomics Research Network (PGRN)**
Appointed Member

Oct 2016–Present **Alliance for Clinical Trials in Oncology**
Pharmacogenomics and Population Pharmacology Working Group, October 2017–Present
Genitourinary Malignancies Working Group, October 2016–Present

June 2016–Present **University of North Carolina Lineberger Comprehensive Cancer Center**
Faculty Member, Molecular Therapeutics
Data Safety Monitoring Committee Member, November 2017–Present

Mar 2016–Present **Clinical Pharmacogenetics Implementation Consortium (CPIC)**
Appointed Member

Oct 2015–Present **University of North Carolina Eshelman School of Pharmacy, Division of Pharmacotherapy and Experimental Therapeutics**
Assistant Professor (tenure track)
Division Director for Graduate Studies, April 2019 – Present
Division Director for Graduate Admissions, August 2017– April 2019
Graduate Education Committee Member, August 2017– Present
Faculty member, Center for Pharmacogenomics and Individualized Therapy, Oct 2015– Present

Oct 2015–Present **North Carolina Cancer Hospital, Department of Pharmacy**
Clinical Pharmacist Practitioner
Multidisciplinary Genitourinary Oncology Clinic, Oct 2015– Present

Sept 2014–Oct 2015 **University of North Carolina Eshelman School of Pharmacy, Division of Pharmacotherapy and Experimental Therapeutics**
Postdoctoral research associate in clinical pharmacology in the Innocenti Laboratory

June 2011–April 2015 **North Carolina Cancer Hospital, Department of Pharmacy**
Clinical Pharmacy Specialist
UNC Multidisciplinary Genitourinary Oncology Clinic/UNC Supportive Care Consult Service
Clinical Pharmacokineticist
UNC Bone Marrow Transplant Service (busulfan PK-guided dosing)

Aug 2010–May 2014 **University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences**
Department of Clinical Pharmacy, Division of Experiential Practice
Clinical Instructor
Writing Preceptor, P2-P3 Doctor of Pharmacy Students

Sept 2008–July 2010 **Kaiser Permanente of Colorado**
Outpatient Intern Pharmacist, Department of Pharmacy, Lakewood, Colorado
Clinical Research Associate, Department of Pharmacy and Department of Oncology/Hematology

Dec 2007–July 2010 **University of Colorado School of Medicine**
Department of Surgery (Division of Gastrointestinal and Burn Surgery)
Research Assistant in the Roederscheimer laboratory

May 2005–May 2008 **University of Colorado School of Medicine**
The Center for Genetic Lung Disease
Division of Pulmonary Sciences and Critical Care Medicine
Research Assistant in the West/Rodman laboratory

April 2005–May 2006 **University of Colorado Denver, Department of Biology**
Research Assistant and Teaching Assistant in the UCD Cell Signaling laboratory

Honors and Awards

Feb 2020	Basic Science and Clinical Research Literature Award <i>Hematology/Oncology Pharmacist Association</i>
2019–2021	NIH Loan Repayment Program Award (Clinical Research) <i>National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)</i>
Feb 2019	Early Career Research Grant Award <i>Hematology/Oncology Pharmacy Association</i>
Jan 2019	IBM Junior Faculty Development Award <i>Office of the Provost, University of North Carolina</i>
Oct 2018	ACCP Research Institute Futures Junior Investigator Award <i>American College of Clinical Pharmacy</i>
Sept 2016	Teaching Award (“Worthy of Recognition) for DPET 812 <i>UNC Eshelman School of Pharmacy</i>
2014–2015	Post-doc fellow, Clinical Pharmacology T32 Training Program (NIGMS 5T32GM086330-04) <i>UNC Eshelman School of Pharmacy, Duke University and Hamner Institute for Drug Safety</i>
Nov 2014	Kathryne A. Brewington Award (2014–2015 Outstanding Graduate Student in Pharmaceutical Sciences) <i>UNC Eshelman School of Pharmacy</i>
May 2014	GlaxoSmithKline Dissertation Fellowship <i>GlaxoSmithKline and UNC Eshelman School of Pharmacy</i>
Feb 2014	Khalid Ishaq Travel Award <i>UNC Eshelman School of Pharmacy</i>
July 2013	Teaching Award (“Worthy of Recognition) for DPET 812 <i>UNC Eshelman School of Pharmacy</i>
April 2013	Frank Porter Graham Honor Society Inductee <i>UNC Graduate School</i>
2012–2013	AFPE Pre-Doctoral Fellowship in Clinical Pharmaceutical Science (competitive renewal) <i>American Foundation for Pharmaceutical Education</i>
2011–2012	AFPE Pre-Doctoral Fellowship in Clinical Pharmaceutical Sciences <i>American Foundation for Pharmaceutical Education</i>
Aug 2010	UNC Graduate School Doctoral Merit Assistantship <i>UNC Graduate School</i>
Mar 2010	Rho Chi/AFPE First-Year Graduate Student Fellowship <i>Rho Chi Honor Society and American Foundation for Pharmaceutical Education</i>
May 2008–May 2010	Kaiser Permanente Kent M. Nelson Memorial Clinical Pharmacy Scholar <i>UCHSC School of Pharmacy</i>
Dec 2006–May 2009	Dean’s List <i>University of Colorado Health Science Center (UCHSC) School of Pharmacy</i>
Sept 2008	Phi Lambda Sigma Pharmacy Leadership Honor Society Inductee <i>UCHSC School of Pharmacy</i>
May 2008	2007-2008 University of Colorado APhA-ASP Award <i>UCHSC School of Pharmacy</i>
Feb 2008	Rho Chi Pharmacy Academic Honor Society Inductee <i>UCHSC School of Pharmacy</i>
May 2006	Designated Outstanding Undergraduate Researcher at UCD Research Day <i>University of Colorado at Denver</i>
April 2005–May 2006	Fellowship Recipient from the National Science Foundation (NSF) and the University of Colorado Undergraduate Research Opportunities Program (UROP) <i>Received funding to develop a protocol to separate detergent-insoluble membrane rafts from Xenopus laevis oocytes while at the University of Colorado at Denver</i>
Dec 2004–May 2006	Dean’s List <i>University of Colorado at Denver</i>
Jan 2006	Golden Key Honor Society Inductee <i>University of Colorado Denver</i>

Bibliography: Peer-Reviewed Publications (ORCID: 0000-0003-3742-8863)

* Indicates authors contributed equally to work

1. Black RM Williams AK, Ratner L, **Crona DJ**, Wiltshire T, Weck KE, Stouffer GA., Lee CR. Projected Impact of Pharmacogenomic Testing on Medications Beyond Antiplatelet Therapy in Percutaneous Coronary Intervention Patients. Accepted by *Pharmacogenomics* in February 2020. Ahead of publication.
2. Zhu J,* Patel T,* Miller J, Torrice CD, Sketch MR, Aggarwal M, Alexander M, Armistead P, Tatjana Grgic T, Ptachcinski J, Riches M, Shaw JR, Suzuki, O, Shea T, Rao KV, Wiltshire T, Weimer E, **Crona DJ**. Influence of Germline Genetic Variants on Tacrolimus Pharmacokinetics in Allogeneic Hematopoietic Stem Cell Transplant Patients. *Int. J. Mol. Sci.* 2020 January 29; 21(3): 858.
3. Asquith CRM, Maffuid KA, Laitinen T, Torrice CD, Tizzard GJ, **Crona DJ**, Zuercher WJ. Targeting the water network of EGFR using novel 4-anilinoquin(az)olines inhibitors for chordoma. *Chem Med Chem.* 2019 Oct 4;14(19):1693-1700. Epub 2019 Aug 19.
4. Asquith CRM, Fleck N, Torrice CD, **Crona, DJ**, Grundner C, William J. Zuercher WJ. Anti-tubercular activity of novel 4-anilinoquinolines and 4-anilinoquinazolines. *Bioorg Med Chem Lett.* 2019 Sep 15;29(18):2695-2699.
5. Innocenti F, Jiang C, Sibley AB, Denning S, Etheridge AS, Watson D, Niedzwiecki D, Hatch AJ, Hurwitz HI, Nixon AB, Furukawa Y, Kubo M, **Crona DJ**, Kindler HL, McLeod HL, Ratain MJ, Owzar K. A First Genetic Analysis of gemcitabine-Induced high-grade neutropenia in pancreatic cancer patients. *Pharmacogenet Genomics.* 2019 Aug;29(6):123-131. Epub 2019 May 20.
6. Valgus J, Weitzel K, Peterson JF, **Crona DJ**, Formea CM. Current practices in the delivery of pharmacogenomics: Impact of the recommendations of the pharmacy practice model summit. *Am J Health-Syst Pharm.* 2019 April 8;76(8):521–529.
7. Cavallari LH, Van Driest SL, Prows CA, Bishop JR, Limdi NA, Pratt VM, Ramsey LB, Smith DM, Tuteja S, Duong BQ, Hicks JK, Lee JC, Owusu Obeng A, Beitelshes AL, Bell GC, Blake K, **Crona DJ**, Dressler L, Gregg RA, Hines LJ, Scott SA, Shelton RC, Weitzel KW, Johnson JA, Peterson JF, Empey PE, Skaar TC. Multi-site investigation of strategies for the clinical implementation of *CYP2D6* genotyping to guide drug prescribing. *Genet Med.* 2019 Oct;21(10):2255-2263. Epub 2019 Mar 21.
8. Asquith CRM, Berger BT, Wan J, Bennett JM, Capuzzi SJ, **Crona DJ**, Drewry DH, East MP, Elkins JM, Fedorov O, Godoi PH, Hunter DM, Knapp S, Müller S, Torrice CD, Wells CI, Earp HS, Willson TM, Zuercher WJ. SGC-GAK-1: A Chemical Probe for Cyclin G Associated Kinase (GAK). *J Med Chem.* 2019 Mar 14;62(5):2830-2836. Epub 2019 Feb 26.
9. Moll S, **Crona DJ**, and Martin K. Direct Oral Anticoagulants in Extremely Obese Patients: OK to Use? *Res Pract Thromb Haemost.* 2018 Dec 24;3(2):152-155. eCollection 2019 Apr.
10. Reynolds ML, Nachman PH, Mooberry MJ, **Crona DJ**, Derebail VK. Recurrent venous thromboembolism in primary membranous nephropathy despite direct Xa inhibitor therapy: a case report. *J Nephrol.* 2019 Aug;32(4):669-672.
11. **Crona DJ**,* Skol AD,* Leppänen V-M, Glubb DM, Etheridge AS, Hilliard E, Peña C, Peterson Y, Klauber-DeMore N, Alitalo KK, Innocenti F. Novel genetic determinants of survival in renal cell carcinoma patients treated with sorafenib: a clinical and translational experimental study. *Cancer Res.* 2019 Jan 1; 79(1):231-241.
12. Cass AS, Odinet JS, Valgus JM, **Crona DJ**. Infusion reactions following administration of intravenous rolapitant at an academic medical center. *J Oncol Pharm Pract.* 2019 Oct;25(7):1776-1783.
13. Stump SE, Whang YE, **Crona DJ**. Cabozantinib-induced serum creatine kinase elevation and musculoskeletal complaints. *Investigational New Drugs.* 2018; 36(6), 1143-1146. Epub June 2018.
14. Gordon JA, Buonerba C, Pond G, **Crona D**, Gillessen S, Lucarelli G, Rossetti S, Dorff T, Artale S, Locke JA, Bosso D, Milowsky MI, Witek MA, Battaglia M, Pignata S, Cherhroudi C, Cox ME, De Placido P, Ribera D, Omlin A, Buonocore G, Chi K, Kollmannsberger C, Khalaf D, Facchini G, Sonpavde G, De Placigo S, Eigl BJ, Di Lorenzo G. Statin use and survival in patients with metastatic castration-resistant prostate cancer treated with abiraterone or enzalutamide after docetaxel failure: the international retrospective observational STABEN study. *Oncotarget.* 2018 Apr 13;9(28):19861. eCollection 2018 Apr 13.
15. Gonzalez D, Gauri Rao G, Stacy Bailey S, Brouwer KLR, Cao Y, **Crona DJ**, Kashuba A, Lee C, Morbitzer K, Patterson JH, Wiltshire T, Easter J, Savage S, and Powell R. Precision Dosing: Public Health Need, Proposed Framework, and Anticipated Impact. *Clin Transl Sci.* 2017 Nov;10(6):443-454. Epub 2017 Aug 10.
16. **Crona DJ** and Whang YE. Androgen Receptor-Dependent and -Independent Mechanisms Involved in Prostate Cancer Therapy Resistance. *Cancers (Basel).* 2017 Jun 12;9(6). pii: E67.
17. **Crona, DJ**, Faso A, Nishijima TF, McGraw K, Galsky MD, Milowsky MI. A systematic review of strategies to prevent cisplatin-induced nephrotoxicity. *Oncologist.* 2017 May;22(5):609-619.
18. **Crona DJ** and Whang YE. Application of liquid biopsies to identify genomic factors associated with therapy resistance in castration resistant prostate cancer. *Ann Transl Med.* 2016 Oct;4(Suppl 1):S64.

19. Milowsky MI, Galsky MD, **Crona DJ**, George D, Dreicer R, Morris M, Nanus DM, Tse, K, Petruck J, Webb IJ, Scher HI. Phase 1/2 dose escalation trial of multiple doses and schedules of the prostate-specific membrane antigen-targeted antibody drug conjugate MLN2704, in patients with metastatic castration-resistant prostate cancer. *Urol Oncol*. 2016 Dec;34(12):530.e15-530.e21.
20. **Crona DJ**, Milowsky MI, Whang YE. Androgen receptor targeting drugs in castration-resistant prostate cancer and mechanisms of resistance. *Clin Pharmacol Ther*. 2015;98(6):581-589. Epub Sept 2015.
21. Glubb DM, Paré-Brunet L, Jantus-Lewintre E, Jiang C, **Crona D**, Etheridge AS, Mirza O, Zhang W, Seiser EL, Rzyman W, Jassem J, Auman T, Hirsch FR, Owzar K, Camps C, Dziadziuszko R, Innocenti F. Functional FLT1 Genetic variation is a prognostic factor for recurrence in stage I–III non–small-cell lung cancer. *J Thorac Oncol*. 2015 July 10(7):1067-1075. Epub June 2015.
22. Paugh SW, Thierfelder WE, Subbarao Malireddi RK, Actis M, Coss D, Laudermilk LT, Panetta JC, McCorkle JR, Stocco G, Wilkinson MR, Ferreira AM, Gurung P, Crews KR, Fan Y, Cheng C, Bonten E, Yang W, Fernandez C, Ramsey LB, Diouf B, Smith C, Hicks K, Zanut A, Giordanengo AK, **Crona D**, Holmfeldt L, Mullighan CG, den Boer ML, Pieters R, Jeha S, Latif F, Pui C-H, Guy K, Kanneganti T-D, Relling MV, Evans WE. Caspase-1 cleaves the glucocorticoid receptor and modulates cellular response to glucocorticoids. *Nat Genet*. 2015;47:607-614. Epub April 2015.
23. **Crona DJ**, Ramirez J, Qiao W, de Graan AJ, Ratain MJ, van Schaik RHN, Mathijssen RHJ, Rosner GL, Innocenti F. Clinical validity of new genetic biomarkers of irinotecan neutropenia: an independent replication study. *Pharmacogenomics J*. 2016 Feb;16(1):54-9. Epub April 2015.
24. **Crona DJ**, Whang Y. Posterior reversible encephalopathy syndrome induced by enzalutamide in a patient with castration resistant prostate cancer. *Invest New Drugs*. 2015;33:751-754. Epub December 2014.
25. Swan JT, Giouroukakis M, Shank BR, Berger K, **Crona DJ**, Wombwell E. The value of pharmacy residency training for health-systems: An annotated bibliography. *J Pharm Pract*. 2014 Mar 20;27(4):399-411.
26. **Crona DJ**, Keisler MD, Walko CM. Regorafenib: A novel multi-targeted tyrosine kinase inhibitor for colorectal cancer and gastrointestinal stromal tumors. *Ann Pharmacother*. 2013 Dec;47(12):1685-96. Epub November 2013. Review.
27. **Crona D**, Innocenti F. Can knowledge of germline markers of toxicity optimize dosing and efficacy of cancer therapy? *Biomarker Med*. 2012;6(3):349-62. Review.
28. **Crona D**, MacLaren R. Gastrointestinal hormones in critically ill patients tolerant versus intolerant to gastric enteral nutrition. *JPEN J Parenter Enteral Nutr*. 2012 Mar;36(2):189-96. Epub July 2011.
29. Majka S, Hagen M, Harral J, Gendron R, Paradis H, **Crona D**, Lloyd JE, Nozik-Grayck E, Stenmark KR, West J. Endothelial-specific expression of Bmpr^{2Δx4+} transgene in mice results in pulmonary thrombosis and hypertension. *Respiratory Research*. 2011 June;12(1):84.
30. **Crona D**, Harral J, Adnot S, Eddahibi S, West J. Gene expression in lungs of mice lacking the 5-hydroxytryptamine transporter gene. *BMC Pulm Med*. 2009 May 10;9(1):19.
31. West J, Harral J, Lane K, Deng Y, Ickes B, **Crona D**, Albu S, Stewart D, Fagan K. Mice expressing BMPR2^{R899X} transgene in smooth muscle develop pulmonary vascular lesions. *Am J Resp Cell Mol Biol*. 2008;295(5):L744-55. Epub Aug 2008.
32. Tada Y, Majka S, Carr M, Harral J, **Crona D**, Kuriyama T, West J. Molecular effects of loss of BMPR2 signaling in smooth muscle in a transgenic mouse model of PAH. *Am J Physiol Lung Cell Mol Physiol*. 2007 Jun;292(6):L1556-63. Epub March 2007.

Bibliography: Peer-Reviewed Publications in Preparation, Submitted, Review or Revision

1. Szeto A,* Bucci T,* Deal A, Zhu A, Ahmad M, Cass A, Sketch MR, Zeidner J, Foster M, Muluneh B, **Crona DJ**. Response to tyrosine kinase inhibitors in real world patients with chronic myeloid leukemia. Accepted with revisions in January 2020 to *Pharmacotherapy*. In revision.
2. Zhu J, Weiner D, Beechinor RJ, Thompson T, Schorzman A, Zamboni W, **Crona DJ**, Tarantino LM. Application of a population pharmacokinetic and pharmacodynamic model in preclinical cocaine addiction models across genetically diverse strains of inbred mice. Submitted in January 2020 to *Pharmacogenomics*. In review.
3. Zhu J, Jones AR, Sketch MR, **Crona DJ**. The role of *BRCA1/2* genetic pleiotropy in predicting PARP inhibitor efficacy in breast, ovarian, and prostate cancers. Submitted in January 2020 to *Pharmacotherapy*. In review.
4. Austin CA, Szeto AH, Sketch MR, Gupta A, **Crona DJ**, Wiltshire T, Busby-Whitehead J, Kistler CE. The Feasibility of Genotyping Mechanically Ventilated Patients in the Medical ICU. Submitted to *Annals of the American Thoracic Society* in January 2020. In review.
5. Tiemann A, Deal A, Sketch MR, Nelson K, Reeves BN, Milowsky MI, Proctor AE, **Crona DJ**. Treatment-emergent macrocytosis as a predictive biomarker of tyrosine kinase inhibitor efficacy. Submitted in February 2020 to *The Oncologist*. In review.

- Muralidharan A, Damery E, Torrice CD, Everett RS, **Crona DJ**, Bae-Jump VL, Thakker DR. OCT and MATE transporters are critical to the AMPK-mediated antiproliferative effects of metformin in human endometrial cancer. In preparation for March 2020 submission to *Br. J. Pharmacol.*
- Torrice CD, Sketch MR, Muralidharan A, Everett RS, Thakker DR, **Crona DJ**. Comprehensive characterization of the relationship between cation transporters and the antiproliferative effects of metformin in preclinical models of genitourinary malignancies. In preparation for March 2020 submission to *Br. J. Pharmacol.*
- Crona DJ**,* Zhu J, Sketch MR, Szeto A, Froment A, Patel T, Torrice CD, Maffuid KA, Patel S, Noubouossie D, Skinner S, Henderson MW, Piegore M, Mottl A, Jain K, Martin KA, Adcock D, Grant R, Key NS, Derebail V.* A phase 1 single-dose trial of apixaban in nephrotic syndrome. In preparation for March 2020 submission to *J. Am. Soc. Nephrol.*
- Crona DJ**, Zhu J, Kemper R, Drier A, Bell EF, Sketch MR, Boland AM, Garrett A, Wang L, Mitchell KH, Tomlins SA, Dees EC, Godley PA, Dunn MW, Rose TL, Basch E, Milowsky MI, Whang YE. Next generation sequencing of primary prostate cancer tumors reveals actionable opportunities for clinical management. In preparation for March 2020 submission to *Urol. Oncol.*
- Maffuid KA, Lu D, Torrice CD, Umana J, Chiarella AM, Hathaway NA, **Crona DJ**. Chemically catalyzed epigenetic gene regulation of *MYC* in preclinical models of cancer. In preparation for April 2020 submission to *Cancer Research*.
- Zhu J, Wu S, Beechinor R; Kemper R; Bukkems L, Mathot R, Clossen M; Gonzalez D, Chen S-L, Key N, **Crona DJ**. External Evaluation of a Perioperative FVIII Population Pharmacokinetic Model for Hemophilia A Patients. In preparation for May 2020 submission to *Haemophilia*.

Bibliography: Book Chapters

- Crona DJ** and Cipriani AB. Renal cell carcinoma. In: DiPiro JT, et al, eds. *Pharmacotherapy: A Pathophysiologic Approach*. 12th ed. New York: McGraw-Hill, 2020. Online chapter.
- Crona DJ** and Auten JJ. Kidney cancer. In: Schwinghammer TL et al, eds. *Pharmacotherapy Casebook: A Patient-Focused Approach*. 11th ed. New York: McGraw-Hill, 2020. Ahead of publication.
- Crona DJ** and Proctor AD. Prostate Cancer. In: Chisholm-Burns, MA, et al, eds. *Pharmacotherapy Principles & Practice*, 5th ed. New York: McGraw-Hill, 2018. Pages 1391-1404.
- Walko CM and **Crona DJ**. Renal cell carcinoma. In: DiPiro JT, et al, eds. *Pharmacotherapy: A Pathophysiologic Approach*. 11th ed. New York: McGraw-Hill, 2016. Online chapter.
- Crona DJ** and Auten J. Kidney Cancer. In: Schwinghammer TL, Koehler JM, eds. *Pharmacotherapy Casebook: A Patient-Focused Approach*. 10th ed. New York: McGraw-Hill, 2016. Pages 402-403.
- Walko CM, **Crona DJ**. Chronic myelogenous leukemia. In: Schwinghammer TL, Koehler JM, eds. *Pharmacotherapy Casebook: A Patient-Focused Approach*. 9th ed. New York: McGraw-Hill, 2014. Pages 403-405.

Bibliography: Book Editor

- Innocenti F, **Crona DJ**. Cancer Therapies in the Personalized Medicine Era (11 lectures). Henry Stewart Talks Limited, London, England. Launched May 2017, updated June 2018. Available online at: <https://hstalks.com/playlist/1046/cancer-therapies-in-the-personalized-medicine-era/?biosci>.

Bibliography: Non-Peer Reviewed Publications

- Rose TL and **Crona DJ**. Somatic Mutation Testing in Metastatic Prostate Cancer. 2018 Genitourinary Cancers Symposium. ASCO Post Daily News, February 1, 2018. Available online at: <https://gucasym.org/daily-news/somatic-mutation-testing-metastatic-prostate-cancer>.
- Hertz D, **Crona D**, Talameh J, Brantley S, Roode L, Theken K, Zafir B, Hull JH. Integration of scientific writing and applied biostatistics into a SAS programming course for pharmaceutical sciences graduate students. Available online at: <http://analytics.ncsu.edu/sesug/2012/PO-11.pdf>.

Bibliography: Abstracts and Posters (presenting author underlined)

- Zhu J, Wu S, Beechinor R, Kemper R, Bukkems L, Mathot R, Clossen M, Gonzalez D, Chen S, Key N, **Crona DJ**. External evaluation of a perioperative FVIII population pharmacokinetic model for hemophilia A patients. Presented at the 10th Symposium on Hemostasis; April 23-25, 2020; Chapel Hill, NC.
- Maffuid KA, Torrice CD, Hardy PB, Murphy WA, James LI, Kim WY, Frye SF, Pearce K, **Crona DJ**. *Evaluation of the effects of combined chemical inhibition of PARP and BET proteins in preclinical models of urothelial bladder cancer*. Abstract 1132 presented at the AACR Annual Meeting in San Diego, CA, April 2020.
- Wise A, Cauble M, Szeto AH, **Crona DJ**, Wiltshire T, Patel S, Austin CA, Ward K, Beaty J, Kistler CE. *The Feasibility of*

- Using Pharmacogenetics in Nursing Home Residents to Reduce Adverse Events*. Presented at the American Geriatrics Society 2020 Annual Scientific Meeting; May 8, 2020; Long Beach, CA.
4. Cauble M, Wise A, Szeto AH, **Crona DJ**, Wiltshire T, Patel S, Austin CA, Ward K, Beaty J, Kistler CE. *Nursing Home Stakeholder Perspectives on the Use of Pharmacogenomics in Medical Care*. Presented at the American Geriatrics Society 2020 Annual Scientific Meeting; May 8, 2020; Long Beach, CA.
 5. Tiemann A, Sketch MR, Nelson K, Reeves BN, Milowsky MI, Cipriani AE, **Crona DJ**. *Treatment-emergent macrocytosis as a predictive biomarker of tyrosine kinase inhibitor efficacy*. Late-breaking abstract presented at ACCP Annual Meeting in New York NY, October 2019.
 6. Quintanilha JCF, Racioppi A, Wang J, Denning S, Etheridge AS, Peña CE, **Crona DJ**, Danyu L, Innocenti F. *PIK3R5 genetic predictors of hypertension induced by VEGF-pathway inhibitors*. Abstract 2591 presented at ESMO 2019 Congress in Barcelona, Spain.
 7. **Crona DJ**, Zhu J, Drier A, Bell EF, Boland AM, Garrett A, Mitchell KH, Wang L, Tomlin, SA, Dees EC, Godley PA, Mary Dunn M, Rose TL, Ethan Basch E, Milowsky MI, Whang YE. *Next Generation Sequencing of Primary Prostate Cancer Tumors Reveals Actionable Opportunities for Clinical Management*. Abstract submitted to ASCO Annual Meeting in Chicago IL, June 2019. Abstract selected for publication: e16582.
 8. Asquith CRM, Bieberich AA, Maffuid KA, Fatig R, Tizzard GJ, Laitinen T, East MP, Torrice CD, Drewry DH, Johnson GL, **Crona DJ**, Calvin B, Morris DC, Zuercher WJ. *Optimization of structural features of the 4-Anilinoquin(az)oline scaffold for chordoma utilizing an innovative toxicology profiling assay panel - (MEDI 100)*. Presented at the 257th ACS National Meeting, Orlando, March 31st-April 4th, 2019.
 9. Tiemann A, Sketch MR, Nelson K, Proctor AE, **Crona DJ**. *c-KIT-Induced Macrocytosis as a Predictive Biomarker of Tyrosine Kinase Inhibitor Treatment Efficacy: Preliminary Results*. Presented at the 2019 HOPA Annual Conference. Fort Worth, TX. April 3-6, 2019. **Tiemann earned HOPA Travel Award**.
 10. Bucci T, Deal A, Szeto A, Ahmad M, Cass A, **Crona DJ**, Muluneh B. *Response to Tyrosine Kinase Inhibitors in Real World Patients With Chronic Myeloid Leukemia*. Presented at the 2019 HOPA Annual Conference. Fort Worth, TX. April 3-6, 2019.
 11. Day J, Lena RW, Walker J, Lucas A, Foster M, **Crona DJ**, Muluneh B. *A systematic literature review of POMP maintenance therapy dosing and dose intensity in adult acute lymphoblastic leukemia*. Presented at the 2019 HOPA Annual Conference. Fort Worth, TX. April 3-6, 2019.
 12. Cavallari LH, Van Driest SL, Prows CA, Bishop JR, Limdi NA, Pratt VM, Ramsey LB, Smith DM, Tuteja S, Duong BQ, Hicks JK, Lee JC, Owusu Obeng A, Beitelshes AL, Bell GC, Blake K, **Crona DJ**, Dressler L, Empey PE, Gregg RA, Hines LJ, Scott SA, Shelton RC, Weitzel KW, Peterson JF, Johnson JA, Skaar TC. *Multi-site Investigation of Strategies for the Clinical Implementation of CYP2D6 Genotype-Guided Therapies*. Poster presentation at American Society of Clinical Pharmacology and Therapeutics 2019 Annual Meeting. Washington DC. March 13-16, 2019. *Clin Pharmacol Ther.* 2019;105(S1):S88 (PIII-023).
 13. **Crona DJ**, Drier A, Zhu J, Bell EF, Garrett A, Mitchell KH, Tomlin, SA, Dees EC, Godley PA, Mary Dunn M, Rose TL, Ethan Basch E, Milowsky MI, Whang YE. *Next Generation Sequencing of Primary Prostate Cancer Tumors Reveals Actionable Opportunities for Clinical Management: The UNC Experience*. Abstract 305 presented at the ASCO Genitourinary Cancers Symposium in San Francisco, CA, Feb 2019.
 14. Rose TL, Hayward M, Salazar A, Eulitt P, McGinty K, Anthony Drier A, Wobker S, Whang YE, Brower B, Dunn MW, **Crona DJ**, Shibata Y, Uronis JM, Mayhew GM, Milowsky MI, Kim WY. *Fibroblast Growth Factor Receptor Status and Response to Immune Checkpoint Inhibition in Metastatic Urothelial Cancer*. Presented at the ASCO Genitourinary Cancers Symposium in San Francisco, CA, Feb 2019.
 15. Aggarwal M, Miller J, Zhu J, Torrice C, **Crona DJ**. *Influence of CYP3A4 germline variants on tacrolimus pharmacokinetics and acute graft versus host disease in allogeneic hematopoietic stem cell transplant patients*. Poster 6-296 presented at ASHP Midyear Clinical Meeting, Anaheim CA, December 2018.
 16. Day J, Deal A, Wang Y, Muluneh B, **Crona DJ**, Reeves B. *Direct Oral Anticoagulants As Secondary Prophylaxis in Classical Myeloproliferative Neoplasms*. *Blood*. 2018;132:5468; doi: <https://doi.org/10.1182/blood-2018-99-116713>.
 17. Zhu J, Weiner D, Beechinor RJ, Thompson T, **Crona DJ**, Tarantino LM. *Application of a population pharmacokinetic and pharmacodynamic model to shed light on cocaine addiction differences amongst six strains of inbred mice*. Podium presentation and poster M1430-05-033 presented at 2018 AAPS PharmSci 360 in Washington, DC, Nov 2018. **Zhu earned Heyward Hull Travel Award**.
 18. Eulitt PJ, Deal AM, Kim WY, Whang YE, Godly PA, Basch EM, **Crona DJ**, Milowsky MI, Rose TL. *Use of immune checkpoint inhibition at the end of life in metastatic urothelial cancer*. Presented at the American Society of Clinical Oncology Annual Meeting in Chicago IL, June 2018.

19. Chiarella A, Butler K, Wang A, Lu D, Torrice C, **Crona DJ**, Jin J, Hathaway N. *New chemically driven strategies for allele specific regulation*. Presented at 2018 Igniting Innovation Symposium in Chapel Hill NC, April 2018.
20. **Crona DJ**, Skol AD, Leppänen V-M, Glubb DM, Etheridge AS, Hilliard E, Peña C, Peterson Y, Klauber-DeMore N, Alitalo KK, Innocenti F. *Clinical biomarkers of survival in renal cell carcinoma patients treated with sorafenib*. Presented at the AACR 2018 Annual Meeting in Chicago, IL in April 2018. Abstract 1625.
21. White N, Guzman B, Gilliland M, Milowsky, M, **Crona DJ**, Kashuba ADM, Rosen EP. *Detection of Renal Cell Carcinoma Multikinase Inhibitors in Hair by Mass Spectroscopy Imaging to Measure Patient Adherence*. Presented at the 10th Mass Spectrometry: Applications to the Clinical Lab (MSACL) Conference, Palm Springs, CA, January, 2018.
22. Patel T, Miller J, Torrice C, Shaw JR, Ptachcinski J, Alexander M, Weimer E, Rao KV, **Crona DJ**. *Influence of CYP3A5 genotype on tacrolimus trough concentrations in allogeneic hematopoietic stem cell transplant patients (final analysis)*. Presented at 2017 PharmSci Conference, Chapel Hill, NC, May 2017.
23. Miller J, Patel T, Torrice C, Shaw JR, Ptachcinski J, Alexander M, Weimer E, Rao KV, **Crona DJ**. *Influence of CYP3A5 genotype on tacrolimus trough concentrations in allogeneic hematopoietic stem cell transplant patients (interim analysis)*. Presented at the 13th HOPA Annual Conference, Anaheim CA, March 2017. Poster # CT74. **Miller earned HOPA Travel Award.**
24. Innocenti F, Karabinos A, Etheridge A, Pena C, **Crona D**. *Novel genetic marker of diarrhea in renal cell carcinoma patients treated with sorafenib*. *Annals of Oncology*. 2016 Oct;127(suppl_6): Abstract 130P.
25. **Crona DJ**, Suzuki O, Trask, Jr. OJ, Frick A, Parks B, Wiltshire T, Innocenti F. *Identification of novel candidate genes associated with sorafenib cytotoxicity and cytochrome C release*. *Cancer Res*. 2015;75(15 Suppl):Abstract nr 5486. **Crona earned GSK Dissertation Fellowship Travel Award.**
26. Innocenti F, Rosner GL, Qiao W, de Graan AJ, Ratain MJ, van Schaik RHN, Ramirez J, Mathijssen RHJ, **Crona DJ**. *An independent and external pharmacogenetic replication analysis of proposed biomarkers of irinotecan neutropenia and pharmacokinetics*. Abstract #66 presented at the 26th EORTC-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics, Barcelona, Spain, November 2014.
27. **Crona DJ**, Suzuki O, Trask, Jr. OJ, Frick A, Parks B, Wiltshire T, Innocenti F. *A high-throughput cellular genetics approach to identifying genes associated with sorafenib response and toxicity*. *Cancer Res*. 2014;74(19 Suppl):Abstract nr 5560. **Crona earned Khalid Ishaq Travel Award.**
28. Stehmer T, Proctor A, **Crona D**, Walko C, Deal A, Milowsky M, Weck K, Valgus J. *Retrospective evaluation of documentation of pharmacogenetic markers used to guide antineoplastic therapy, part II*. Presented at the 10th Annual HOPA Annual Conference, New Orleans, LA, March 2014.
29. Valgus J, Proctor A, Stehmer T, **Crona D**, Walko C, Deal A, Milowsky M, Weck K. *Retrospective evaluation of documentation of pharmacogenetic markers used to guide antineoplastic therapy*. Abstract # 9-087 presented at the ASHP Midyear Clinical Meeting, Orlando FL, December 2013.
30. **Crona D**, Skol A, Ahsan H, Peña C, Innocenti F. *Germline Genetic Markers of Overall Survival in Renal Cell Carcinoma Patients Treated with Sorafenib*. Abstract # 494 presented at the 24th EORTC-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics, Dublin Ireland, November 2012.
31. Innocenti F, Owzar K, Jiang C, **Crona D**, Etheridge A, Jassem J, Rzyman W, Hirsch FR, Dziadziuszko R, Glubb D. *Germline variants in angiogenesis genes as markers of progression-free survival in stage I-III non-small cell lung cancer patients*. Abstract # 484 presented at the 24th EORTC-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics, Dublin Ireland, November 2012.
32. Hertz D, **Crona D**, Talameh J, Brantley S, Roode L, Theken K, Zafir B, Hull JH. *Integration of scientific writing and applied biostatistics into a SAS programming course for pharmaceutical sciences graduate students*. Abstract # PO-11 presented at the South East SAS Users Group (SESUG) 2012 Conference, Cary NC, October 2012.
33. **Crona D**, MacLaren. *Ghrelin and motilin expression in critically ill patients tolerant and intolerant to gastric enteral nutrition*. *Critical Care Medicine*. 2010; 38: abstract number 261.
34. **Crona D**, MacLaren R. *Ghrelin and motilin expression in critically ill patients tolerant and intolerant to gastric enteral nutrition*. Presented at the University of Colorado Health Sciences Center Research Symposium, April 2010.
35. Harral J, Carr M, **Crona D**, Ivester C, Miller K, Eddahibi S, Adnot S, West J. *Serotonin transporter knockout mice have alterations in multiple pathways with relevance to PAH*. Presented at the Fifth European Respiratory Society Lung Science Conference, Taormina Italy, March 2007.
36. **Crona D**, Carr M, West, J, Stith B. *A Method to Separate Detergent-Insoluble Lipid Membrane Rafts from Xenopus laevis Oocytes*. Presented at the UCD Health Sciences Center Research Day, May 2006.

Bibliography: Select Invited Presentations

- Nov 2017** **Pharmacogenetics 101: A Primer for Pharmacists**
Provided pharmacogenetics primer for practicing pharmacists and served on a panel discussion
North Carolina Association of Pharmacists 2017 Annual Meeting, Winston-Salem, NC. ACPE number:
0046-9999-17-210-L01-P
- May 2017** **How to Interpret Patient Genotyping Data**
Pain Cases and Panel Discussion Participant
ACPE Continuing Education session presented at UNC PharmSci 2017 Conference in Chapel Hill, NC.
ACPE number: 0046-9999-17-044-L01-P
- April 2016** **Precision Medicine Call to Action; Deciphering the Genetic Code in Clinical Practice**
ACPE Continuing Education session presented at Durham/Orange County Pharmacists Association (DOPA) Meeting. ACPE number: 0046-9999-15-272-L01-P
- Nov 2015** **Precision Medicine Call to Action; Deciphering the Genetic Code in Clinical Practice**
ACPE Continuing Education session presented at the Kroger Pharmacy Annual Meeting. ACPE number:
0046-9999-15-272-L01-P
- April 2014** **Updates in Chronic Myeloid Leukemia Pharmacotherapy**
ACPE Continuing Education session presented at the University of North Carolina Lineberger Comprehensive Cancer Center. ACPE number: 0046-9999-13-183-L01-P
- Nov 2014** **Identification and validation of germline variations that associate with overall survival in metastatic renal cell carcinoma patients treated with sorafenib**
Presentation delivered to Faculty, Graduate Students and Post-Doctoral Fellows as part of the UNC Eshelman School of Pharmacy DPET Research Seminar series
- March 2014** **Clinical Validity of New Genetic Biomarkers of Irinotecan Neutropenia and PK: An Independent Replication Study**
Presentation delivered to Faculty, Graduate Students and Post-Doctoral Fellows as part of the UNC Eshelman School of Pharmacy DPET Research Seminar series
- Jan 2014** **Updates in Colorectal Cancer Pharmacotherapy**
ACPE Continuing Education session presented at the University of North Carolina Lineberger Comprehensive Cancer Center. ACPE number: 0046-9999-13-177-L01-P
- June 2013** **Identification of Germline Variants that Associate with Overall Survival in Renal Cell Carcinoma Patients Treated with Sorafenib**
Presentation delivered to Faculty, Graduate Students and Post-Doctoral Fellows as part of the UNC Eshelman School of Pharmacy DPET Research Seminar series
- May 2013** **Updates in Renal Cell Carcinoma Pharmacotherapy**
ACPE Continuing Education session presented at the University of North Carolina Lineberger Comprehensive Cancer Center. ACPE number: 0046-9999-19-009-L01-P
- Mar 2013** **Updates in Prostate Cancer Pharmacotherapy**
ACPE Continuing Education session presented at the University of North Carolina Lineberger Comprehensive Cancer Center. ACPE number: 0046-9999-15-009-L01-P
- Mar 2013** **Chemoprotectant Agents in Oncology**
ACPE Continuing Education session presented at the University of North Carolina Lineberger Comprehensive Cancer Center. ACPE number: 0046-9999-13-009-L01-P
- Sept 2012** **Drug Development, Investigational Agents, and Access to Oncologic Drugs**
ACPE Continuing Education session presented at the University of North Carolina Lineberger Comprehensive Cancer Center. ACPE number: 0046-9999-12-192-L01-P
- April 2012** **Tyrosine Kinase Inhibitor (TKI) Pharmacogenetics: Identifying Potential Biomarkers of Efficacy and Toxicity**
Presentation delivered to Faculty, Graduate Students and Post-Doctoral Fellows as part of the UNC Eshelman School of Pharmacy DPET Research Seminar series
- Dec 2010** **Hypermethylation of HtrA3: A Link between Smoking, Lung Cancer and Chemoresistance?**
Presentation delivered to Faculty, Graduate Students and Post-Doctoral Fellows as part of the UNC Eshelman School of Pharmacy DPET Research Seminar series
- May 2010** **University of Colorado Honors Research Presentation on Differences of Motilin, Ghrelin, CCK and TNF- α Expression Levels in Critically-Ill Patients Tolerant and Intolerant to Enteral Tube Feeds**

- Presentation delivered to the University of Colorado School of Pharmacy Honors Committee and members of the University of Colorado Hospital Division of Pulmonary and Critical Care Medicine*
- Dec 2009 ASHP Pharmacy Student Forum Opening General Session Presentation at the 44th Annual ASHP Midyear Clinical Meeting**
 Speakers: Marni Lun, Pharm.D. and **Daniel Crona**, Vice Chair of the ASHP Pharmacy Student Forum Executive Committee
Presented information on the 2009-2010 ASHP Pharmacy Student Forum to over 1500 student attendees of the ASHP MCM in Las Vegas, Nevada
- June 2009 Navigating the ASHP Policy Process**
 Speakers: Diane Ginsburg, RPh and FASHP and **Daniel Crona**
Presented at the ASHP Summer Meeting in Rosemont, Illinois
- June 2009 ASHP Student Forum National Caucus**
 Facilitated by: Theresa Hudson, Pharm.D. and **Daniel Crona**
- Dec 2008 ASHP Policy Process Primer: “How To’s for Future Pharmacy Politicos”**
 Speakers: Kasey Thompson, Pharm.D. and **Daniel Crona**, Vice-Chair of the ASHP Pharmacy Student Forum Executive Committee
Presented at the 43rd ASHP Midyear Clinical Meeting in Orlando, Florida
- Aug 2008 SMARCB1 Expression Alters Prednisone Response in Leukemic Blasts**
Presentation delivered as part of St. Jude Children’s Research Hospital Pediatric Oncology Education series

Teaching Experience: Didactic and Experiential

- Oct 2016–2019 PHCY 611, Advanced Clinical Pharmacology**
Clinical Pharmacology of Biologics Lecture
 Lecturer, PY2 Doctor of Pharmacy Students
- Feb 2019 DPMP 512, Pharmaceuticals and Drug Delivery Systems**
Monoclonal Antibodies Lecture
 Lecturer, PY1 Doctor of Pharmacy Students
- Feb 2018 PHCY 822, Hematology/Oncology Elective**
Prostate Cancer Lecture
Cancer-Related Pain Lecture
 Lecturer, PY3 Doctor of Pharmacy Students
 University of North Carolina Eshelman School of Pharmacy, Chapel Hill, NC
- Nov 2016–2017 PHCY 611, Advanced Clinical Pharmacology**
Clinical Pharmacology in Hematology/Oncology Lecture
 Lecturer, PY2 Doctor of Pharmacy Students
 University of North Carolina Eshelman School of Pharmacy, Chapel Hill, NC
- Jan 2012–2017 DPET 812, Advanced Hematology/Oncology: Genomic Profiling in Oncology**
 Lecturer, PY3 Doctor of Pharmacy Students
 University of North Carolina Eshelman School of Pharmacy, Chapel Hill, NC
- Jan 2012–2017 DPET 812, Advanced Hematology/Oncology: Renal Cell Carcinoma**
 Lecturer, PY3 Doctor of Pharmacy Students
 University of North Carolina Eshelman School of Pharmacy, Chapel Hill, North Carolina
- Nov 2012–2016 PHCY 447, Hematology/Oncology: Prostate Cancer**
 Lecturer, PY3 Doctor of Pharmacy Students
 University of North Carolina Eshelman School of Pharmacy, Chapel Hill, North Carolina
- Aug 2013–2014 MEDI 140, Molecules to Cells: Basic Pharmacology**
MEDI 238, Respiratory System: Pulmonary Pharmacology
 Group Instructor, MS1 and MS2 Doctor of Medicine Students
 University of North Carolina School of Medicine, Department of Pharmacology, Chapel Hill, NC
- Aug 2010–2014 PHCY 443: Pharmacotherapy 2: Dermatology/Endocrinology (Rash, Poison Ivy)**
PHCY 444: Pharmacotherapy 4: Cardiology/Nephrology (Dyslipidemia Management)
PHCY 445: Pharmacotherapy 3: Pulmonary/Gastroenterology (Asthma Management)
PHCY 446: Pharmacotherapy 5: Neurology/Psychiatry (Smoking Cessation)
PHCY 447: Pharmacotherapy 6: Hematology/Oncology (Oncology, Anemia, Pain)

- PHCY 449: Pharmacotherapy 7: Infectious diseases**
Group Instructor Lecturer, PY1-PY3 Doctor of Pharmacy Students, In Conjunction with PHCY 402-404
University of North Carolina Eshelman School of Pharmacy, Chapel Hill, NC
- April 2013 DPET 831, Quantitative Methods in Clinical Research: Clinical Data Validation Techniques**
Lecturer, Doctor of Philosophy and Doctor of Pharmacy Students, Post-doctoral Fellows
University of North Carolina Eshelman School of Pharmacy, Chapel Hill, NC
- Mar 2013 PHCY 450, Problems in Pharmacotherapy: Oncology Case**
Group Instructor and Case Author, PY3 Doctor of Pharmacy Students
University of North Carolina School of Pharmacy, Chapel Hill, NC
- Aug 2012–2013 MEDI 140, Molecules to Cells: Basic Pharmacology**
MEDI 142, Integrative Function and Its Cellular Basis: Autonomic System Pharmacology
MEDI 238, Respiratory System: Pulmonary Pharmacology
Group Instructor, MS1 and MS2 Doctor of Medicine Students
School of Medicine, Department of Pharmacology, Chapel Hill, NC
- April 2012 PHCY 450, Problems in Pharmacotherapy: Oncology Case**
Group Instructor and Case Author, PY3 Doctor of Pharmacy Students
University of North Carolina School of Pharmacy, Chapel Hill, NC
- Jan 2012 DPET 831, Quantitative Methods in Clinical Research**
Advanced Teaching Assistant, Recitation Lecturer, Doctor of Philosophy Students, PY3 Doctor of Pharmacy
Students, Post-doctoral Fellows
University of North Carolina Eshelman School of Pharmacy, Chapel Hill, NC

Teaching Experience: Mentoring Record

Trainees at UNC Eshelman School of Pharmacy and UNC Medical Center:

Undergraduate (BS)

Research Advisor

- Jan 2019–Present Ryan Kemper**
Sept 2019–Present Gabrielle MacKenzie

Doctor of Pharmacy (PharmD)

Research Advisor, PY1-4

- May 2017–May 2019 Jacki Day, BS;** Project entitled “Direct Oral Anticoagulants as Secondary Prophylaxis in Classical Myeloproliferative Neoplasms”

Research Advisor, PharmD Honors Program

- Oct 2014–Aug 2016 Allison Karabinos, BS** (with Federico Innocenti, MD, PhD)
Jan 2012–April 2014 Danielle Schlafer, BS (with Federico Innocenti, MD, PhD)

Research Advisor, Research and Scholarship Program pathway

- Jan 2019–Present Stephanie Kim;** Project entitled “Evaluation of radium-223 in combination with abiraterone or enzalutamide for the treatment of metastatic castration-resistant prostate cancer”
- Jan 2019–Present Taylor Werner;** Project entitled “A retrospective analysis of metformin in patients with renal cell carcinoma”
- Aug 2018–Present Kristin Nelson;** Project entitled “Macrocytosis as a predictive biomarker of clinical outcomes in chronic myelogenous leukemia patients treated with oral TKIs”
- Jan 2018–Present Andrew Tiemann;** Honors thesis entitled “Macrocytosis as a predictive indicator of clinical outcomes in patients treated with oral TKIs”
- Jan 2017–May 2019 Mehak Aggarwal;** Honors thesis entitled “Influence of CYP3A4 germline genetic variants on tacrolimus pharmacokinetics and incidence and severity of acute graft versus host disease in allogeneic hematopoietic stem cell transplant patients.”

Doctor of Philosophy (PhD) in Pharmaceutical Sciences

Major Advisor

- Aug 2018–Present Kaitlyn Maffuid (DPET)**

Aug 2017–Present **Jing “Daisy” Zhu, PharmD (DPET);** Dissertation title: “Development and validation of a precision dosing model to optimize tacrolimus dosing in adult recipients of allogeneic hematopoietic stem cell transplant”

Aug 2016–July 2018 **Jenna Foyt, PharmD (DPET)**

Research Rotation

Aug 2019–Dec 2019 **William Murphy, PharmD (DPET)**

Dissertation Committee

Jan 2019–Present **Dongbo Lu, MS (CBMC)**

Post-Doctoral Research Fellows

Major Advisor

Oct 2019–Present **Arul Muralidharan, PhD**

T32 Clinical Pharmacology Advisory Committee

Aug 2016–Sept 2018 **Ryan Beechinor, PharmD, BCPS, BCOP**

UNC Clinical Research/Drug Development/Medical Affairs Fellowship, Major Research Advisor

July 2019–Present **Sheel Patel, PharmD (PPD Drug Development)**

July 2018–July 2019 **Andy Szeto, PharmD (United Therapeutics Drug Development)**

July 2017– July 2018 **Margo Sketch, PharmD, MPH (United Therapeutics Medical Affairs)**

July 2016–June 2017 **Tejendra Patel, PharmD (GSK Medical Affairs)**

UNC Pharmacy Residency

PGY-1 Pharmacy Practice Research Mentor

Aug 2018–July 2019 **Kevin Chen, PharmD, MS**

Aug 2016–June 2017 **Aaron Devanathan, PharmD**

Residency Research Advisor

July 2018–July 2019 **Tyler Bucci, PharmD, MSPS**

Feb 2018–July 2018 **Sarah Stump, PharmD, BCPS**

Jan 2018–July 2018 **Amanda Cass, PharmD, BCPS**

Jan 2018–July 2018 **Johlee Odinet, PharmD, BCPS**

July 2016–June 2017 **Jordan Miller, PharmD, BCOP, CPP**

Medication Use Evaluation Advisor

Sept 2018–July 2019 **Kevin Chen, PharmD, MS, Lauren Drawdy, PharmD and Robert Rose, PharmD;** MUE entitled “Evaluation of FDA approved and off-label use of PD1 inhibitors” (UNC IRB 18-2952)

Trainees External to UNC Eshelman School of Pharmacy and UNC Medical Center:

MS in Pharmacy (University College of London)

Research Advisor

Aug 2019–Dec 2019 **Corinna Wong;** Project entitled “Birabresib effects on CDK4/6 and cyclin D1”

Staff:

Research Specialist

Supervisor

Aug 2016–Present **Chad Torrice, BS**

Undergraduate Work Study Student

Supervisor

Oct 2019–Present **Heemaja Kuntal**

Research Funding

CURRENT:

Title: "STTR: Chemically controlling chromatin to treat Friedreich's Ataxia"

Funding Agency: Subaward Agreement: Epigenos Bioscience, Inc./NIH (1R41 TR003245-01)

Level of Effort: 10%

Point of Contact: Joseph Ruiz, email:jruiz@epigenos.com

Project Period: 04/01/2020 -03/31/2021

Level of Funding: \$202,000

Role: UNC Co-PI (UNC Co-PI: Hathaway)

Goals and Aims: The Hathaway and Crona labs will provide experimental support as part of this subcontract award. This includes mammalian tissue culture, biochemical analysis, and data analysis with statistical testing of results.

Title: "The Feasibility of Using a Pharmacogenetic Assay in Nursing Home Residents to Reduce Adverse Events (FOGI-NH)"

Level of Effort: N/A

Funding Agency: NC TraCS Institute (550KR221910)

Funding Agency Point of Contact: Paul Kerr, paul_kerr@med.unc.edu

Project Period: 12/01/2019-11/30/2020

Level of Funding: \$50,000

Role: Co-Investigator (PI: Christine Kistler, MD)

Goals and Aims: To conduct a pilot feasibility study of 50 nursing home patients, and to provide preliminary data for a future projects examining pharmacogenetics of common medications used in the geriatric population.

Title: "Chemically catalyzed epigenetic gene regulation in prostate cancer"

Level of Effort: 10% (no salary support)

Funding Agency: UNC Eshelman Institute for Innovation

Funding Agency Point of Contact: Mieke Lynch, mieke_lynch@unc.edu

Project Period: 06/01/2019-05/31/2021

Level of Funding: Tier 2 Translational (\$250,000)

Role: Co-PI (Co-PI: Nate Hathaway, PhD)

Goals: The major goal of this translational research grant is to evaluate a dCas9-FKBP-CEM gene expression modulation system in preclinical models of prostate cancer. The effects of CEM23 on *AR* repression and the effects of CEM87 on *TP53* activation will be assessed in cellular and mouse model systems.

Specific Aims: 1. Optimize sgRNAs within in vitro model systems of mPC and mCPRC, and 2. Evaluate dCas9-FKBP vectors with activating and repressive CEMs in preclinical *in vivo* models.

Title: "Chemically catalyzed epigenetic repression of the *MYC* gene as a new therapeutic paradigm in cancer"

Level of Effort: N/A

Funding Agency: NC TraCS Institute (2KR1131906)

Funding Agency Point of Contact: Paul Kerr, paul_kerr@med.unc.edu

Project Period: 04/01/2019-03/31/2020

Level of Funding: \$2,000

Role: Co-PI (PI: Kaitlyn Maffuid)

Goals: This study proposes to test the hypothesis that a combination of dCas9-FKBP constructs and Chromatin Epigenetic Modulators (CEMs) will recruit specific epigenetic machinery to repress *MYC* in preclinical models of cancer. Our technology leverages a combination of innovative dCas9-FKBP constructs that can be directed to any genomic loci, and CEMs that recruit epigenetic machinery to the *MYC* transcriptional start site and promoter.

Specific Aims: 1. Design and validate new molecular and chemical tools for specific allele regulation to repress *MYC* expression. 2. Evaluate novel dCas9-FKBP constructs and CEMs in preclinical models of *MYC*-amplified cancer.

Title: "Preliminary evaluation of TKI exposure-response relationships in real world patients (RWPs) with chronic myelogenous leukemia (CML)"

Level of Effort: 3%

Funding Agency: Hematology/Oncology Pharmacy Association

Funding Agency Point of Contact: Sarah Tiwana, stiwana@hoparx.org

Project Period: 3/01/19-2/28/21

Level of Funding: \$50,000

Role: PI (Co-Is: Benyam Muluneh, PharmD and Matt Foster, MD)

Goals: To evaluate exposure-response relationships for chronic phase CML patients receiving oral TKIs.

Specific Aims: 1. Characterize imatinib, dasatinib, and bosutinib interpatient clearance variability in RWPs with CML, and associate clearance data with important treatment-related milestones in CML. 2. Develop advanced population PK/PD models for CML patients treated with TKIs. 3. Begin to develop adaptive feedback control algorithms for CML patients treated with TKIs. (Co-Is: Benyam Muluneh, PharmD and Matt Foster, MD)

Title: "Window of Opportunity Platform Study to Define Immunogenomic Changes to Pembrolizumab Alone and in Rational Combinations in Muscle-invasive Bladder Cancer (LCCC-1827)"

Level of Effort: 5%

Funding Agency: Merck Oncology Translational Studies Grant

Project Period: 10/01/2018-09/31/2020

Level of Funding: \$844,615

Role: Co-Investigator (PI: Matthew Milowsky, MD)

Goals: The major goal of this investigator-initiated clinical/translational window of opportunity study is to explore whether entinostat-dependent tumor intrinsic and tumor immune microenvironment (TME) changes can be harnessed for enhanced efficacy of immune checkpoint (IC) blockade.

Specific Aims: 1. Characterize the changes in immune gene signature expression, neoantigen burden, T cell receptor (TCR) clonality, and *STAT3* and *NFKB* gene signatures in blood and tumor samples collected before and after treatment with pembrolizumab alone. 2. Characterize the changes in immune gene signature expression, neoantigen burden, TCR clonality, and *STAT3* and *NFKB* gene signatures in blood and tumor samples collected before and after treatment with pembrolizumab in combination with entinostat, compared to pembrolizumab alone.

Title: "A Prospective Multi-dose Study of Apixaban in Nephrotic Syndrome Patients"

Level of Effort: 1%

Funding Agency: American College of Clinical Pharmacy

Funding Agency Point of Contact: Jessie Culley, JCulley@accp.com

Project Period: 09/15/2018-09/14/2020

Level of Funding: \$30,000

Role: PI (Co-Is: Nigel Key, MBBS and Vimal Derebail, MD)

Goals: The overall objective of this study is to understand the extent of differences in apixaban steady-state pharmacokinetics and pharmacodynamics between nephrotic syndrome patients and healthy control subjects.

Specific Aims: 1. Quantify inter-individual variation in steady-state apixaban plasma concentrations between nephrotic syndrome patients and control subjects. 2. Estimate steady state apixaban pharmacokinetic parameters in nephrotic syndrome patients and control subjects. 3. Estimate steady-state apixaban pharmacodynamic parameters in nephrotic syndrome patients and control subjects.

Title: "Precision Dosing of TKIs for Real World Patients with CML"

Level of Effort: 5%

Funding Agency: UNC Eshelman Institute for Innovation

Funding Agency Point of Contact: Mieke Lynch, mieke_lynch@unc.edu

Project Period: 06/01/2018-06/30/2019

Level of Funding: \$50,000

Role: PI (Co-I: Benyam Muluneh)

Goals: The major goal of this pilot project is to collect pharmacokinetic and pharmacodynamic data from real-world patients (RWPs) with chronic phase chronic myelogenous leukemia (CML) who are treated with one of three orally administered tyrosine kinase inhibitors.

Specific Aims: 1. Characterize imatinib, dasatinib, and nilotinib trough concentration and TKI clearance variability in RWPs with CML, and associate trough and clearance data with important treatment-related milestones in CML. 2. Evaluate the contribution of imatinib, dasatinib and nilotinib trough data to adherence in RWPs.

PENDING:

Title: "Development and validation of a precision dosing model to optimize tacrolimus dosing in adult recipients of allogeneic hematopoietic stem cell transplant"

Funding Agency: NIH/NHLBI (1 F31 HL154726-01)

Level of Effort: 0%

Project Period: 04/01/2020–03/31/2023

Level of Funding: \$84,190

Role: Mentor (PI: Jing Zhu, PharmD)

Goals: In this proposal, Dr. Crona will mentor Dr. Zhu on her F31 application. Her project will focus on using clinical pharmacology (pharmacogenetics and advanced PKPD modeling) to optimize the starting dose of tacrolimus for patients who receive allogeneic hematopoietic stem cell transplant.

Specific Aims: 1. Evaluate associations between germline genetic variants and tacrolimus PK/PD variability. 2. Develop a population PK/PD model to describe quantitative relationship between tacrolimus. 3. Validate the PK/PD model-guided dosing regimen by applying it in real world patients through a non-interventional clinical trial.

Title: "Evaluation of the effects of combined chemical inhibition of PARP and BET proteins on homologous recombination in preclinical models of urothelial bladder cancer"

Funding Agency: NIH/NCI (1K08CA252631-01)

Level of Effort: 70%

Funding Agency Point of Contact: Scientific Review Administrator (SRO) name: Tushar Deb; phone: 240-276-6132; email: tushar.deb@nih.gov.

Project Period: 07/01/2020–06/30/2024

Level of Funding: \$752,000

Role: PI

Goals: This K08 Mentored Research Career Development award will provide a structured plan, with expert mentorship and an ideal environment, to facilitate Dr. Daniel Crona's development as an independent clinical/translational researcher. In this proposal, Dr. Crona will implement an innovative research study that uses preclinical models of advanced UC to evaluate the effects that a combination of olaparib plus OTX-015 has on disruption of DNA repair by homologous recombination, cause direct DNA damage and induce cell cycle defects.

Specific Aims: 1. Evaluate and quantify the effects of OTX-015-mediated *BRCA1* gene and protein repression; Evaluate the mechanisms that underlie OTX-015-mediated homologous recombination disruption, DNA damage and introduction of cell cycle defects; Assess combined olaparib plus OTX-015 on tumor regression in HR-competent *in vivo* models of UC.

Title: "Chemically catalyzed epigenetic gene regulation in renal cell carcinoma"

Funding Agency: American Cancer Society (2019ACS RSG 188339)

Level of Effort: 12%

Funding Agency Point of Contact: TBD

Project Period: 07/01/2020–06/30/2024

Level of Funding: \$600,000

Role: PI

Goals: In this research proposal, we have assembled a multi-disciplinary research team with complementary expertise in basic and translational research experience in kidney cancer, chemical biology, molecular biology, pharmacology and developmental therapeutics. We envision that our powerful technology will be developed into a viable therapeutic strategy for patients with metastatic kidney cancer.

Specific Aims: 1: Evaluate the effects of dCas9-CEM repressor on *EPAS1* gene repression in preclinical mRCC models; 2: Evaluate the effects of dCas9-CEM activator on *VHL* gene reactivation in preclinical mRCC models.

Title: "Chemically catalyzed epigenetic gene modulation in preclinical models of kidney cancer"

Funding Agency: Department of Defense, CDMRP Kidney Cancer Research Program Idea Development Award (KC190027)

Level of Effort: 20%

Funding Agency Point of Contact: TBD

Project Period: 7/1/2020 – 6/30/2022

Level of Funding: \$400,000

Role: PI

Goals: Chemically catalyzed epigenetic gene regulation as a new therapeutic paradigm in renal cell carcinoma. This study proposes to apply our innovative technology, and to test the hypothesis that a combination of dCas9-FKBP constructs and Chromatin Epigenetic Modulators (CEMs) will recruit specific epigenetic machinery to regulate gene expression in preclinical models of mRCC.

Specific Aims: 1: Evaluate the effects of dCas9-CEM repressor on *EPAS1* gene repression in preclinical mRCC models; 2: Evaluate the effects of dCas9-CEM activator on *VHL* gene reactivation in preclinical mRCC models.

COMPLETED:

Title: "Evaluation of combined PARP and BET inhibition in preclinical models of urothelial bladder cancer"

Level of Effort: 1%

Funding Agency: IBM Junior Faculty Development Award

Funding Agency Point of Contact: UNC Office of the Provost (Gordon Joyner)

Project Period: 01/01/2019-12/31/2019

Level of Funding: \$10,000

Role: PI

Goals: This UNC Junior Faculty Development Award proposes research will provide preliminary data to lay the groundwork for a future K08 resubmission or R01 submission to the National Cancer Institute. The focus of the project is to evaluate the rational combination of a PARP inhibitor (olaparib) and a bromodomain inhibitor in preclinical models of urothelial bladder cancer (UC).

Specific Aims: 1. Evaluate whether combined PARP and BET inhibition sensitizes UC cells, compared to PARP inhibition alone. 2. Evaluate how combined PARP and BET inhibition abrogates DDR gene transcription in preclinical models of UC.

Title: "A Pilot Study Examining the Feasibility of Using a Pharmacogenetic Assay in Mechanically Ventilated Adults in the Medical ICU"

Level of Effort: 2%

Funding Agency: NC TraCS Institute (550KR191801)

Funding Agency Point of Contact: Paul Kerr, paul_kerr@med.unc.edu

Project Period: 10/01/2018-09/31/2019

Level of Funding: \$50,000

Role: Co-Investigator (PI: Charles Austin, MD)

Goals: To conduct a pilot feasibility study of 50 critically ill subjects, and to provide preliminary data for a future projects examining the sedating medications and individual genetic drug metabolism variation on delirium in the ICU.

Specific Aims: 1. To assess the feasibility of obtaining buccal swabs, performing daily cognitive assessments, and obtaining genotyping information on mechanically ventilated patients in the ICU. 2. To gain preliminary data on genetic variability in our population that can guide a power calculation for a subsequent larger study. 3. To evaluate associations between genotype, treatment regimen, and outcome, as well as identify key patient-specific factors in development of delirium.

Title: "Center for Allele Specific Epigenetic Regulation (CAS^R)"

Level of Effort: 10%

Funding Agency: UNC Eshelman Institute for Innovation

Funding Agency Point of Contact: Mieke Lynch, mieke_lynch@unc.edu

Project Period: 06/01/2017-05/31/2019

Level of Funding: \$280,000

Role: Co-PI (Co-PI Nate Hathaway, PhD)

Goals: The major goal of this pilot grant is develop and apply a cutting-edge technique that can individually modulate gene activity with single allele precision in humans. Our system consists of a catalytically inactive Cas9 (dCas9), where the nuclease activity has been mutated so that the dCas9 binds to (but does not cleave) target DNA. The dCas9 is tethered to a chemical entity that recruits chromatin-modifying enzymes to the dCas9. This project focuses on repressing the androgen receptor in models of metastatic prostate cancer.

Specific Aims: 1. Design and validate new molecular and chemical tools for specific allele regulation. 2. Apply novel dCas9-FKBP constructs and Chromatin Epigenetic Modifiers (CEMs) in models of prostate cancer by targeting the androgen receptor signaling axis.

Title: “Clinical Implementation of Pharmacogenomics: The Actionable Genome”

Level of Effort: 2%

Funding Agency: UNC Eshelman Institute for Innovation (Tier 3)

Funding Agency Point of Contact: Mieke Lynch, mieke_lynch@unc.edu

Project Period: 06/01/2017-05/31/2019

Level of Funding: \$500,000

Role: Co-Investigator: (PI: Tim Wiltshire, PhD)

Goals: The long-term goal of this proposal is to demonstrate that a preemptive pharmacogenetic testing program is cost-effective, that is, the outlay cost of testing is outweighed by cost savings in improved prescribing regimens and that this will ultimately lead to direct improved health outcomes for patients.

Specific Aims: 1. Initiate pilot studies in five specialist areas of medicine (pain/anesthesia, cardiology, oncology, psychiatry, and solid organ transplant) to discover the usefulness of providing preemptive pharmacogenetic information to physicians, and 2. Evaluate added workflow in the clinic with pharmacogenetic testing.

Title: “Influence of the Nephrotic Syndrome on the Pharmacokinetics and Pharmacodynamics of Apixaban”

Level of Effort: 5%

Funding Agency: NC TraCS Institute (550KR161709)

Funding Agency Point of Contact: Paul Kerr, paul_kerr@med.unc.edu

Project Period: 10/01/2017-03/31/2019

Level of Funding: \$50,000

Role: PI

NCT ID: NCT02599532

Goals: The major goal of this Phase I study is to understand the extent of inter-individual variability in single-dose apixaban PK/PD between nephrotic syndrome patients versus healthy control subjects.

Specific Aims: 1. Quantify inter-individual variation in apixaban plasma concentrations between NS patients and matched controls. 2. Estimate apixaban pharmacokinetic parameters in nephrotic syndrome patients and matched controls. 3. Estimate apixaban pharmacodynamic parameters in nephrotic syndrome patients and matched controls.

Title: “Validation of genetic markers for cytotoxic response to sorafenib in MEF cells”

Level of Effort: N/A

Funding Agency: NC TraCS Institute (2KR851603)

Funding Agency Point of Contact: Paul Kerr, paul_kerr@med.unc.edu

Project Period: 12/01/2016-11/31/2017

Level of Funding: \$2,000

Role: PI

Goals: The goal of this pilot project was to validate results from a prior study that identified four candidate genes (*Rdx*, *Fdx1*, *Arhgap20*, and *Scmh1*) that could be associated with sorafenib activity and cytotoxicity.

Specific Aims: 1. Establish stably transfected mouse embryonic knockout and overexpression cell lines with each of the four identified genes. 2. Characterize and compare measures of cellular health and apoptosis (cytochrome C release, cell permeability, caspase-3 expression, and cell viability) in wild type cells versus knock-out and over-expression models.

Additional Research Experience

Jan 2011–Oct 2015

**University of North Carolina Eshelman School of Pharmacy
Division of Pharmacotherapy and Experimental Therapeutics
Post-Doctoral and Dissertation Research in DPET/CPIT**

Research focused on the identification of novel germline pharmacogenetic variants that associate with survival among metastatic renal cell carcinoma patients treated with sorafenib

Dissertation Research Advisor: Federico Innocenti, M.D., Ph.D.

Aug 2010–Dec 2010

**University of North Carolina Eshelman School of Pharmacy
Division of Pharmacotherapy and Experimental Therapeutics
DPET laboratory rotation in CPIT**

- Leveraged a high-throughput cellular murine genetics approach to identify genes associated with chemotherapy response and toxicity (rotation focused on etoposide and docetaxel analyses)
Rotation Advisor: Tim Wiltshire, Ph.D.
- Sept 2008–July 2010** **University of Colorado School of Pharmacy Honors Research Project**
Department of Clinical Pharmacy
Associated expression levels of pro-motility hormones (motilin, ghrelin, CCK) and cytokines (TNF- α) with gastrointestinal motility/enteral feeding in critically ill patients
Honors Research Advisor: Robert MacLaren, Pharm.D., FCCM, FCCP
- Dec 2007–July 2010** **University of Colorado School of Medicine, Denver Colorado**
Department of Surgery (Division of Gastrointestinal and Burn Surgery)
Isolated platelet proteins (i.e. PDGF and TGF- β) essential to wound healing
Research Advisor: Mark Roedersheimer, M.D.
- Aug 2008–Aug 2009** **Kaiser Permanente, Denver Colorado**
Departments of Pharmacy and Oncology/Hematology
Retrospective research conducted to determine proper dosing levels of epoetin- α for chemotherapy-induced anemia
Research Advisor: Anita Garcia, Pharm.D., BCOP
- May 2008–Aug 2008** **St. Jude Children’s Research Hospital, Memphis Tennessee**
Department of Pharmaceutical Sciences
Molecular biological and pharmacogenetic projects centered on the relation between *SMARCB1* and glucocorticoid response in pediatric ALL patients
Research Advisors: William Evans, Pharm.D., and Steven Paugh, Ph.D.
- May 2005–May 2008** **University of Colorado School of Medicine, Denver Colorado**
The Center for Genetic Lung Disease, Division of Pulmonary Sciences and Critical Care Medicine, CU Center for Genetic Lung Disease
Molecular biological and transgenic mouse model research conducted to identify molecular etiologies responsible for idiopathic pulmonary arterial hypertension and for cystic fibrosis
Research Advisors: James West, Ph.D. and David Rodman, M.D.

University Service

University of North Carolina Eshelman School of Pharmacy

- Division Director for Graduate Studies, Division of Pharmacotherapy and Experimental Therapeutics, April 2019 – present*
- Committee to Optimize Graduate Student Selection (COGSS), 2018 – present*
- ACPE Accreditation subcommittee (Standards 20 and 22), 2018 – present*
- Case Reviewer, ASHP Clinical Skills Competition, 2018, 2019*
- Division Director for Graduate Admissions, Division of Pharmacotherapy and Experimental Therapeutics, 2017 – 2019*
- Graduate Education Committee, UNC Eshelman School of Pharmacy, 2017 – present*
- Student Health Action Coalition (SHAC) pharmacist preceptor at clinic in Carrboro, 2011 – present*
- SHAC Outreach pharmacist preceptor at Durham Rescue Mission clinic, 2011 – present*
- UNC Eshelman School of Pharmacy Curricular Transformation Immersion in Scientific Inquiry and Scholarship subcommittee, Graduate Student Appointee, 2013 – 2014*
- Pharmacist preceptor for UNC ESOP APhA-ASP Generation Rx initiative, 2012 – 2013*
- Interfaith Council Homeless Clinic pharmacist preceptor at Chapel Hill clinic, 2010 – 2012*
- Southern Women’s Health Fair pharmacist preceptor for APhA-ASP Women’s Health initiative, Raleigh NC, 2011 – 2014*

University of North Carolina Lineberger Comprehensive Cancer Center

- Institutional reviewer for National Cancer Institute F99/K00 applications, 2018, 2019*
- Member, Data Safety Monitoring Committee, 2017 – present*

University of North Carolina Graduate School

- UNC Graduate Student Professional Development Advisory Council, 2013 – 2015*
- UNC Graduate and Professional Student Federation (GPSF) Professional Development Chair, 2013 – 2014*
- UNC-Duke-NCSU Career Symposium Steering Committee, 2013*
- UNC Global Entrepreneurship Week Steering Committee, 2013*

Professional Service

Manuscript Referee

1. Journal of Parenteral and Enteral Nutrition
2. Journal of Pharmacy Practice
3. Annals of Pharmacotherapy
4. Clinical Pharmacology and Therapeutics
5. Annals of Oncology
6. Molecular Cancer Therapeutics
7. The Pharmacogenomics Journal
8. Physiologic Genomics
Pharmacogenomics Editorial Board Member, 2015 – 2018
9. Journal of Veterinary Medical Sciences
10. Scientific Reports
11. Journal of Oncology Pharmacy Practice
12. JCO Precision Oncology
13. British Journal of Pharmacology
14. Clinical Translational Science
15. Genetics in Medicine
16. Journal of Personalized Medicine (MDPI)
17. Pharmaceutics (MDPI)
18. The Oncologist

Professional Affiliations

Jan 2016–present	Hematology Oncology Pharmacists Association, Member <i>Reviewer, 2017 HOPA Research Fund Award, (reviewed in Jan 2018)</i>
May 2012–present	North Carolina Oncology Pharmacists Association (NCOP), Member
April 2012–present	American Society for Clinical Oncology (ASCO) Allied Doctoral Scientist Member (Jan 2016–present) Student Member (Jan 2011–Dec 2015)
Jan 2011–present	American Association for Cancer Research (AACR) Full Member (Jan 2017–present) Associate Member (Jan 2011–Dec 2016)
Sept 2008–present	Phi Lambda Sigma Leadership Honor Society, Member
Feb 2008–present	Rho Chi Academic Honor Society, Member
Oct 2015– Jan 2020	American Association of Colleges of Pharmacy, (AACP) Member
Feb 2011–Jan 2019	American Society for Clinical Pharmacology and Therapeutics (ASCPT) Full Member (Jan 2016–Jan 2019) Student Member (Feb 2011–Dec 2015)
Feb 2012–Feb 2018	American Society of Pharmacometrics (ASoP), Member
Aug 2006–Dec 2016	American Society of Health-System Pharmacists (ASHP), Member <i>Section of Clin. Spec. and Scientists: Emerging Sciences AG, 2011 – 2012, 2013 – 2015</i> <i>New Practitioners Forum Science and Research Advisory Group, 2011 – 2012</i> <i>Commission on Affiliate Relations (New Practitioner Appointee), 2010 – 2011</i> <i>Chair, ASHP Pharmacy Student Forum National Executive Committee, 2009 – 2010</i> <i>Chair, ASHP Pharmacy Student Forum Student Society and Leadership Development Advisory Group, 2009 – 2010</i> <i>Vice-Chair, ASHP Pharmacy Student Forum National Executive Committee, 2008 – 2009</i> <i>Chair, ASHP Pharmacy Student Forum Policy and Legislative Affairs Advisory Group, 2008 – 2009</i>
Aug 2006–Dec 2011	American Pharmacists Association, Member

References Available Upon Request

Last updated: February 28, 2020