

# CURRICULUM VITAE

## Daniel James Crona, PharmD, PhD

### A) Personal Information

#### Address of Laboratory Investigation

120 Mason Farm Road, CB 7361  
Office: 1077 Genetic Medicine Building (GMB)  
Lab: 1067-1068, 1070C, 1073 GMB  
Chapel Hill, North Carolina, 27599  
Office phone: (919) 966-4343  
Lab phone: (919) 445-2760  
Email: daniel.crona@unc.edu

#### Address of Clinical Investigation/Practice

UNC Hospitals and Clinics  
University of North Carolina Medical Center  
101 Manning Drive  
Chapel Hill, North Carolina, 27514  
Phone: (984) 974-0000

### B) Education, Licensure & Training

#### EDUCATION

##### **Post-doctoral Fellow**

**2014–2015**

University of North Carolina and Duke University  
Post-doctoral fellow in clinical pharmacology (NIGMS 5T32GM086330-04)  
Advisors: Howard McLeod, PharmD and Federico Innocenti, MD, PhD

##### **Doctor of Philosophy**

**2010–2015**

University of North Carolina, Chapel Hill North Carolina Eshelman School of Pharmacy, Division of Pharmacotherapy and Experimental Therapeutics –Clinical and Translational Research track  
Dissertation: “*Identification and validation of germline genetic variants associated with sorafenib clinical outcomes and cytotoxicity*”  
Major Advisor: Federico Innocenti, MD, PhD  
Committee Chair: Tim Wiltshire, PhD

##### **Doctor of Pharmacy**

**2006–2010**

University of Colorado School of Pharmacy, Denver Colorado  
Graduated: May 2010  
Graduated with Highest Distinction and Research Honors  
Honors Research Thesis: “*Associated expression levels of pro-motility hormones (motilin, ghrelin, CCK) and cytokines (TNF- $\alpha$ ) with gastrointestinal motility/enteral feeding in critically ill patients*”  
Honors Research Advisor: Rob MacLaren, PharmD, FCCP

##### **Bachelors of Science in Biology (Cum Laude)**

**2004–2006**

University of Colorado Denver, Denver Colorado  
Graduated: May 2006  
Graduated with Honors in Molecular Biological Research  
Honors Research Advisor: Brad Stith, PhD

##### **Bachelors of Arts in History and Spanish (Cum Laude)**

**1993–1998**

Monmouth College, Monmouth Illinois  
Graduated: May 1998  
Graduated with Departmental Honors in History and Spanish

#### LICENSURE

##### **Registered Pharmacist in North Carolina**

**2011–Present**

License number: 21592

##### **Clinical Pharmacist Practitioner (CPP) in North Carolina**

**2018–2023**

License number: 700116 (inactive)

## **TRAINING & CERTIFICATIONS**

<b>American Pharmaceutical Association (APhA) Certified Immunizer</b> APhA Pharmacy Immunization Delivery Program Completed: 03/2007	<b>2007–Present</b>
<b>CPR and Basic Life Support Certification</b> American Heart Association CPR and BLS Certification Program Most Recent Completed: 12/2022	<b>2006–Present</b>
<b>ASCO/HOPA Advanced Practice Provider Certificate Program</b> American Society of Clinical Oncology (ASCO) and Hematology/Oncology Pharmacists Association (HOPA) <i>ACPE-Accredited Certificate Program</i>	<b>2017</b>
<b>The Hamner Institute for Health Sciences PBPK Certificate Course</b> Physiologically Based Pharmacokinetic (PBPK) Modeling and its Applications Completed: 09/2015	<b>2015</b>
<b>NIH Clinical Center Certificate in Clinical Pharmacology</b> National Institutes of Health Clinical Center certificate for participation in NIH “Principles in Clinical Pharmacology” course Completed: 04/2012	<b>2011–2012</b>
<b>TIBBS Teaching Certificate</b> UNC School of Medicine Training Initiative in Biomedical and Biological Sciences (TIBBS) Summer Teaching and Pedagogy program Completed: 08/2011	<b>2011</b>

## **C) Professional Experience**

<b>University of North Carolina Eshelman School of Pharmacy</b> <i>Division of Pharmacotherapy and Experimental Therapeutics</i> Associate Professor with tenure, 2022–Present Assistant Professor (tenure-track), 2015–2022	<b>2015–Present</b>
<b>University of North Carolina Medical Center and North Carolina Cancer Hospital</b> CPP, Phase 1 and Developmental Therapeutics, 2022–Present CPP, Precision Medicine and Molecular Tumor Board, 2021–Present CPP, Genitourinary Oncology Clinic, 2018–2022 Clinical Pharmacokineticist, Bone Marrow Transplant, 2014–2015 Clinical Pharmacist, Genitourinary Oncology Clinic, 2011–2018	<b>2011–Present</b>
<b>University of North Carolina Affiliations</b> UNC Chromatin and Epigenetics Program	<b>2017–Present</b>
UNC Lineberger Comprehensive Cancer Center <i>Molecular Therapeutics Section</i>	<b>2016–Present</b>
UNC Center for Pharmacogenomics and Individualized Therapy	<b>2015–2021</b>
<b>UNC Faculty Career Development</b> Bill and Karen Campbell Junior Faculty Mentoring Program UNC Eshelman School of Pharmacy <u>Mentors</u> : Stephen Frye, PhD and Matthew Milowsky, MD	<b>2015–2022</b>
<b>University of Colorado School of Pharmacy</b> <i>Department of Clinical Pharmacy, Division of Experiential Practice</i> Clinical Instructor	<b>2010–2014</b>
<b>University of Colorado School of Medicine</b>	<b>2005–2010</b>

*Division of Gastrointestinal and Burn Surgery, Department of Surgery, 2008-2010*

Professional Research Assistant

PI: Mark Roederscheimer, MD

*Center for Genetic Lung Disease, Division of Pulmonary Sciences and Critical Care,*

*Department Medicine, 2005-2008*

Professional Research Assistant

PI: James West, PhD and David Rodman, MD

*University of Colorado Denver, Department of Biology, Cell Signaling laboratory, 2005-2006*

Research Assistant and Teaching Assistant

PI: Brad Stith, PhD

#### **St. Jude Children's Research Hospital**

**2008**

*"Germline genetic variants in SMARCB1 that associated with glucocorticoid response in pediatric ALL patients"*

Pediatric Oncology Internship, Department of Pharmaceutical Sciences

Co-PIs: William Evans, PharmD and Steven Paugh, PhD

#### **Kaiser Permanente of Colorado**

*Department of Pharmacy*

Outpatient Intern Pharmacist

**2008–2010**

*Department of Pharmacy and Department of Oncology/Hematology*

Clinical Research Associate

**2007–2010**

PI: Anita Garcia, PharmD, BCOP

### **D) Honors & Awards**

#### **PERSONAL HONORS & AWARDS**

**Teaching Award for DPET 833 - "Worthy of Recognition"**

**2023**

UNC Eshelman School of Pharmacy

**Teaching Award for DPET 873 - "Worthy of Recognition"**

**2023**

UNC Eshelman School of Pharmacy

**Teaching Award for PHCY 611 - "Worthy of Recognition"**

**2022–2023**

UNC Eshelman School of Pharmacy

**Who's Who among Pharmacology Professionals**

**2022**

Who's Who in America

**Basic Science and Translational Research Literature Award**

**2020**

Hematology/Oncology Pharmacist Association

**NIH Loan Repayment Program Award (Clinical Research)**

**2019–2021**

National Institute of Diabetes, Digestive and Kidney Diseases (NIDDK)

**Early Career Research Grant Award**

**2019**

Hematology/Oncology Pharmacy Association

**IBM Junior Faculty Development Award**

**2019**

Office of the Provost, University of North Carolina

**ACCP Research Institute Futures Junior Investigator Award**

**2018**

American College of Clinical Pharmacy

**Teaching Award for DPET 812 - "Worthy of Recognition"**

**2013, 2016**

UNC Eshelman School of Pharmacy

**Kathryne A. Brewington Award**

**2014**

2014 Outstanding Graduate Student in Pharmaceutical Sciences

UNC Eshelman School of Pharmacy

<b>GlaxoSmithKline Dissertation Fellowship</b> GlaxoSmithKline and UNC Eshelman School of Pharmacy	<b>2014</b>
<b>Khalid Ishaq Travel Award</b> UNC Eshelman School of Pharmacy	<b>2014</b>
<b>Frank Porter Graham Honor Society Inductee</b> UNC Graduate School	<b>2013</b>
<b>AFPE Pre-Doctoral Fellowship in Clinical Pharmaceutical Science</b> American Foundation for Pharmaceutical Education <i>2012-2013 – competitive renewal</i>	<b>2012–2014</b>
<b>UNC Graduate School Doctoral Merit Assistantship</b> UNC Graduate School	<b>2010</b>
<b>Rho Chi/AFPE First-Year Graduate Student Fellowship</b> Rho Chi Honor Society/American Foundation for Pharmaceutical Education	<b>2010</b>
<b>Kaiser Permanente Kent M. Nelson Memorial Clinical Pharmacy Scholar</b> University of Colorado School of Pharmacy	<b>2008–2010</b>
<b>Dean's List</b> University of Colorado School of Pharmacy	<b>2006–2009</b>
<b>Phi Lambda Sigma Pharmacy Leadership Honor Society Inductee</b> University of Colorado School of Pharmacy (Alpha Xi Chapter)	<b>2008</b>
<b>University of Colorado APhA-ASP Award</b> University of Colorado School of Pharmacy	<b>2007–2008</b>
<b>Rho Chi Pharmacy Academic Honor Society Inductee</b> University of Colorado School of Pharmacy (Alpha Theta Chapter)	<b>2008</b>
<b>UCD Research Day - Outstanding Undergraduate Researcher Award</b> University of Colorado at Denver	<b>2006</b>
<b>Golden Key Honor Society Inductee</b> University of Colorado Denver	<b>2006</b>
<b>Grant recipient from the National Science Foundation Award and the University of Colorado Undergraduate Research Opportunities Program Award</b> University of Colorado at Denver <i>Received funding to develop a protocol to separate detergent-insoluble membrane rafts from Xenopus laevis oocytes</i>	<b>2005–2006</b>
<b>Dean's List</b> University of Colorado at Denver	<b>2004–2006</b>

#### **TRAINEE HONORS & AWARDS**

<b>J. Heyward Hull Travel Award</b> (S. Gonzalez Tineo) Division of Pharmacotherapy and Experimental Therapeutics, UNC ESOP	<b>2023</b>
<b>HOPA Annual Meeting Travel Award</b> (S. DeVane) Hematology Oncology Pharmacy Association	<b>2022</b>
<b>Top Post-Doctoral Podium Talk</b> (T. Dunlap) 2022 UNC Pharmaceutical Sciences Retreat	<b>2022</b>
<b>Scholar Award</b> (J. Zhu) P.E.O. Sisterhood	<b>2021</b>
<b>ASBMT Top Pharmacy SIG Abstract Award</b> (J. Zhu) American Society of Bone Marrow Transplantation	<b>2021</b>

<b>AFPE Pre-Doctoral Fellowship</b> (J. Zhu) American Foundation for Pharmaceutical Education <b>Title:</b> <i>“Development of a population pharmacokinetic model to optimize tacrolimus dosing in adult recipients of allogeneic hematopoietic stem cell transplant”</i>	<b>2021-2022</b>
<b>AFPE Gateway to Research Grant</b> (J. Robinson) American Foundation for Pharmaceutical Education <b>Title:</b> <i>“Epithelial to Mesenchymal Transition Mechanisms in Metastatic Prostate Cancer: The Role of MPP8”</i>	<b>2021-2022</b>
<b>Frank Porter Graham Honor Society Inductee</b> (J. Zhu) UNC Graduate School	<b>2020</b>
<b>ACCP Student Abstract Award</b> (J. Zhu) American College of Clinical Pharmacology	<b>2021</b>
<b>F.O. Bowman Award for Excellence in Research and Scholarship Program</b> (A. Tiemann) UNC Eshelman School of Pharmacy	<b>2020</b>
<b>ASTCT Top 4 Abstract Award</b> (J. Zhu) American Society for Transplantation and Cellular Therapy	<b>2020</b>
<b>Post-Doctoral Fellow, Hematology T32 Training Program</b> (J. Zhu) UNC School of Medicine, Division of Hematology; PI: N. Key <i>NHLBI 5T32HL0071-49</i>	<b>2019–2021</b>
<b>PY4 Researcher of the Year – Chapel Hill AHEC</b> (J. Day) UNC Eshelman School of Pharmacy and UNC Medical Center	<b>2019</b>
<b>NC TraCS 2K Grant</b> (K. Maffuid) The North Carolina Translational and Clinical Sciences Institute <b>Title:</b> <i>“Chemically catalyzed epigenetic repression of the MYC gene as a new therapeutic paradigm in cancer”</i> (2KR1131906)	<b>2018–2019</b>
<b>Inaugural J. Heyward Hull Travel Award</b> (J. Zhu) Division of Pharmacotherapy and Experimental Therapeutics, UNC ESOP	<b>2018</b>
<b>UNC GPSF Travel Award</b> (J. Zhu) UNC Graduate and Professional Student Federation	<b>2018</b>
<b>HOPA Top 10 Abstract Award</b> (J. Miller) Hematology Oncology Pharmacy Association	<b>2017</b>
<b>HOPA Annual Meeting Travel Award</b> (J. Miller) Hematology Oncology Pharmacy Association	<b>2017</b>
<b>NC TraCS 2K Grant</b> (J. Foyt) The North Carolina Translational and Clinical Sciences Institute <b>Title:</b> <i>“Validation of genetic markers for cytotoxic response to sorafenib in MEF cells”</i> (2KR851603)	<b>2016–2017</b>

## E) Bibliography and Products of Scholarship

### PEER-REVIEWED PUBLICATIONS

Citation statistics from Scopus: h-index: **17**; Citations: **1,081**

ORCID: 0000-0003-3742-8863

\* denotes authors contributed equally to work

\*\* denotes senior authors or co-corresponding authors contributed equally to work

1. Derebail V,\*\* Zhu,J, Crawford ML, Garnier JL, Martin KA, Skinner S, Patel T, Froment A, Sketch MR, Szeto AH, Patel SM, Torrice CD, Tiefenbacher S, Adcock DM, Grant RP, Key NS, **Crona DJ**.\*\* Pharmacokinetics and pharmacodynamics of apixaban in nephrotic syndrome: findings from a phase 1a trial. *Am J Kidney Dis*.

2023 Mar;81(3):373-376. Epub 2022 Nov 1.

2. Dennison T, Heiling H, Deal A, Brunk K, Kemper R, **Crona DJ**, Faso A. Tolerability of palbociclib in younger and older patients with advanced breast cancer. *J Oncol Pharm Pract.* 2023 Jan;29(1):96-104. Epub 2021 Nov 9.
3. Bieberich AA, Laitinen T, Maffuid K, Fatig III RO, Torrice CD, Morris DC, Zuercher WJ, **Crona DJ**, Asquith CRM. Optimization of the 4-anilinoquin(az)oline scaffold as epidermal growth factor receptor (EGFR) inhibitors for chordoma utilizing a toxicology profiling assay platform. *Sci Rep.* 2022 Dec;12(1):12820. Epub 2022 Jul 27.
4. Quintanilha JCF, Geyer S, Etheridge AS, Racioppi A, Hammond K, **Crona DJ**, Peña CE, Jacobson S, Marmorino F, Falcone A, Cremolini C, Sanoff HK, Abou-Alfa GK, Innocenti F. KDR genetic predictor of toxicities induced by sorafenib and regorafenib. *Pharmacogenomics J.* 2022 Dec;22(5-6):251-257. Epub 2022 Apr 28.
5. Nifong E, **Crona DJ**, Alexander M, Grgic T, Shaw JR, Trepte M, Ptachcinski J. Implementation of a risk-adapted algorithm for reduction of bone mineral density loss following allogeneic hematopoietic cell transplantation. Accepted for publication by *J Hematol Oncol Pharm* in October 2022. Ahead of publication.
6. Quintanilha JCF, Etheridge AS, Graynor BJ, **Crona DJ**, Larson NB, Mitchell BD, Innocenti F. Polygenic risk scores for blood pressure to assess the risk of severe bevacizumab-induced hypertension in cancer patients. *Clin Pharmacol Ther.* 2022 Aug;112(2): 364–371. Epub 2022 May 8.
7. Austin CA, Szeto AH, Sketch MR, Gupta A, Wiltshire T, Busby-Whitehead J, **Crona DJ**, Kistler CE. The Pharmacogenetics of Opiates and Its Impact on Delirium in Mechanically Ventilated Adults: A Pilot Study. *J Pharm Technol.* 2022 Aug;38(4):195-201. Epub 2022 April 13.
8. Kistler CE,\*\* Austin CA, Liu JJ, Cauble M, Wise A, Patel S, Szeto AH, Ward K, Zou F, Wiltshire T, **Crona DJ.\*\*** The feasibility and potential of pharmacogenetics in nursing home residents to reduce adverse drug events. *J. Am. Geriatr. Soc.* 2022 May 13;70(5): 1573-1578. Epub 2022 Feb 14.
9. Zhu J,\*\* Rao G, Armistead PM, Ptachcinski J, Weiner DL, Wiltshire T, **Crona DJ.\*\*** Insights and lessons learned from a prospective clinical pharmacology study in allogeneic hematopoietic stem cell transplant during the COVID-19 pandemic. *Clin Transl Sci.* 2022 Mar;15(3):583-587. Epub 2021 Nov 7.
10. Ratner L, Zhu J, Gower MN, Patel T, Miller JA, Cipriani A, Stouffer GA, **Crona DJ**, Lee CR. Pharmacogenomic prescribing opportunities in percutaneous coronary intervention and bone marrow transplant patients. *Pharmacogenomics.* 2022 Feb;23(3):183-194. Epub 2022 Jan 27.
11. Quintanilha JCF, Racioppi A, Wang J, Etheridge AS, Denning S, Peña CE, Skol AD, **Crona DJ**, Lin D, Innocenti F. PIK3R5 genetic predictors of hypertension induced by VEGF-pathway inhibitors. *Pharmacogenomics J.* 2022 Feb;22(1):82-88. Epub 2021 Nov 13.
12. Zhu J,\* Wu S,\* Beechinor R, Kemper R, Bukkems L, Mathot R, Crossen M, Gonzalez D, Chen S-L, Key NS, **Crona DJ**. External evaluation of a factor VIII severe hemophilia A population pharmacokinetic model. *Haemophilia.* 2021 Nov;27(6):974-983. Epub 2021 Aug 17.
13. Kalogirou AS,\*\* East MP, Laitinen T, Torrice CD, Maffuid KA, Drewry DH, Koutentis PA, Johnson GL, **Crona DJ**, Asquith CRM.\*\* Synthesis and evaluation of novel 1,2,6-thiadiazinone kinase inhibitors as potent inhibitors of solid tumors. *Molecules.* 2021 Sep 29;26(19):5911.
14. Szeto AH,\* Bucci T,\* Deal A, Zhu A, Ahmad M, Cass AS, Sketch MR, Zeidner JF, Foster MC, Muluneh B,\*\* **Crona DJ.\*\*** Response to tyrosine kinase inhibitors in real world patients with chronic myeloid leukemia. *Ann Pharmacother.* 2021 Sep 18. doi: 10.1177/10600280211044160. Online ahead of print.
15. Kim SI, Szeto AH, Morgan KP, Brower B, Dunn MW, Khandani AK, Godley PA, Rose T, Basch E, Milowsky MI, Whang YE,\*\* **Crona DJ.\*\*** A real-world evaluation of radium-223 in combination with abiraterone or enzalutamide for the treatment of metastatic castration-resistant prostate cancer. *PLoS One.* 2021 Jun 21;16(6):e0253021. (Correction: *PLoS One.* 2021 Dec 31;16(12):e0262326.)
16. Maffuid KA,\* Koyioni M,\* Torrice CD, Murphy WA, Mewada HK, Koutentis PA, **Crona DJ,\*\*** Asquith CRM.\*\* Design and evaluation of 1,2,3-dithiazoles and fused 1,2,4-dithiazines as anti-cancer agents. *Bioorg Med Chem Lett.* 2021 Jul 1;43:128078. Epub 2021 May 2.
17. Zhu J, Campagne O, Flynn G, Torrice CD, Patel T, Miller JM, Ptachcinski J, Mager D, Weiner DL, **Crona DJ**. Evaluation of the performance of a prior tacrolimus population pharmacokinetic kidney transplant model among adult allogeneic hematopoietic stem cell transplant patients. *Clin Transl Sci.* 2021;14:908–918. Epub 2021 Jan 27.
18. Zhu J, Pasternak AL, **Crona DJ**. The future of research into genetics and the precision dosing of tacrolimus:

what do we need to know? *Pharmacogenomics*. 2020 Oct;21(15):1061-1064.

19. Zhu J, Beechinor RJ, Thompson T, Schorzman A, Zamboni W, **Crona DJ**, Weiner D, Tarantino LM. Pharmacokinetic and pharmacodynamic analyses of cocaine and its metabolites in behaviorally divergent inbred mouse strains. *Genes Brain Behav*. 2021 Feb;20(2):e12666. Epub 2020 May 29.
20. 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. *Pharmacogenomics*. 2020 May;21(7):431-441. Epub 2020 Apr 28.
21. Zhu J,\* Patel T,\* Miller J, Torrice CD, Sketch MR, Aggarwal M, Alexander M, Armistead P, 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.
22. 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.
23. Asquith CRM, Fleck N, Torrice CD, **Crona DJ**, Grundner C, Zuercher WJ. Anti-tubercular activity of novel 4-anilinoquinolines and 4-anilinoquinazolines. *Bioorg Med Chem Lett*. 2019;29(18):2695-2699.
24. 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.
25. 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.
26. 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.
27. 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.
28. Moll S, **Crona DJ**, 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.
29. 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.
30. **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; 79(1):231.
31. 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.
32. 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.
33. Gordon JA, Buonerba C, Pond G, **Crona D**, Gillesen 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 Placido 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.
34. 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.
35. **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. Review.

36. **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.
37. **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.
38. 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.
39. **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. Review.
40. 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.
41. 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.
42. **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.
43. **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 Decr 2014.
44. 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.
45. **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.
46. **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.
47. **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.
48. 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<sup>2Δx4+</sup> Transgene in mice results in pulmonary thrombosis and hypertension. *Respiratory Research*. 2011 June;12(1):84.
49. **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.
50. West J, Harral J, Lane K, Deng Y, Ickes B, **Crona D**, Albu S, Stewart D, Fagan K. Mice expressing BMPR2<sup>R899X</sup> transgene in smooth muscle develop pulmonary vascular lesions. *Am J Resp Cell Mol Biol*. 2008;295(5):L744-55. Epub Aug 2008.
51. 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.

#### **SUBMITTED PEER REVIEWED PUBLICATIONS (IN REVIEW OR REVISION)**

\* denotes authors contributed equally to work

\*\* denotes senior authors or co-corresponding authors contributed equally to work

1. Kemper RM, Meng M, Hardy PB, Lu D, Mewada H, Torrice CD, Maffuid KA, James LI, Kim WY, Frye SV, Gupta GP, Pearce KH, **Crona DJ**. Combined inhibition of BET proteins and PARP promotes impaired DNA damage repair response and cell cycle dysregulation in preclinical models of bladder cancer. Submitted in March 2023 to *Mol Cancer Ther*. Under review.



2. Zhu J, Deal A, Patel T, Miller JA, Torrice CD, Suzuki O, Gonzalez R, Latham B, Ptachcinski JR, Shaw JR, Riches M, Wiltshire T, Weiner DL, Armistead PM, Weimer ET, **Crona DJ**. Impact of germline genetic variations in *POR\*28*, *PPARA*, and *NR112* on tacrolimus pharmacokinetics and clinical outcomes in adult recipients of allogeneic hematopoietic stem cell transplant. Revisions submitted to *Int J Mol Sci* in March 2023. Under review.
3. Dunlap TC, Weiner DL, Kemper RM, Kardouh M, DeVane SC, Symonds A, Shaw JR, Armistead PM, Ptachcinski JR, **Crona DJ**. Model-guided dosing of busulfan in patients receiving allogeneic hematopoietic cell transplant. Submitted in November 2022 to *Journal of Clinical Pharmacology*. Provisionally accepted in December 2022. Revisions under review.
4. Dunlap T,\* Zhu J,\* Kardouh MS, Yu X, Lu D, Jin J, Hathaway NA, Weiner DL, **Crona DJ**. Preliminary *in vivo* pharmacokinetic characterization of CEM87, a novel chromatin modifying bifunctional compound. Submitted in March 2023 to *Molecular Biotechnology*. Under review.
5. Zhu J, Armistead PM, Ptachcinski J, Rao G, Weiner DL, Wiltshire T, **Crona DJ**. The ongoing quest for precision: considerations for optimizing tacrolimus starting dose in adult recipients of allogeneic hematopoietic stem cell transplant (Review article). Submitted to *Clin Transl Sci* in February 2023. Under review.
6. Patel S, Kemper R, Saha MK, Jain K, **Crona DJ**, Derebail VK. Apixaban use for prevention and treatment of venous thromboembolism patients with nephrotic syndrome: a systematic, retrospective study. Revisions submitted in December 2022 to *Kidney International Reports*. Under review.
7. Chen A,\* Chheng E,\* Deal A, Heiling, H, **Crona DJ**, DeVane SR, Grgic T, Nguyen V, Patel S, Riches M, Shaw JR, Stocker J, Trepte M, Whitesell A, Youmans D, Ptachcinski JR. Addition of olanzapine to standard chemotherapy-induced nausea and vomiting prophylaxis in hematopoietic stem cell transplant. Submitted in Pharmacotherapy in March 2023. Under review. Preprint available at: <https://assets.researchsquare.com/files/rs-2102800/v1/0b90e670-36ce-44af-8250-89a3b738de55.pdf>,
8. Kemper RM,\*Tiemann A,\* Deal A. Sketch MR, Nelson K, Reeves BN, Milowsky MI, Cipriani AB, **Crona DJ**. Treatment- emergent macrocytosis as a predictive biomarker of tyrosine kinase inhibitor efficacy. Provisionally accepted to *Clinical Genitourinary Cancers* in December 2022. In revision.

## **BOOK CHAPTERS**

1. **Crona DJ**. Chapter 157: Kidney Cancer: A Time for Decision Level II. In: Schwinghammer TL et al, eds. *Pharmacotherapy Casebook: A Patient-Focused Approach*. 12th ed. New York: McGraw-Hill, 2022 (Accepted; ahead of publication).
2. **Crona DJ** and Cipriani AB. Chapter 154: Prostate Cancer. In: DiPiro JT, et al, eds. *Pharmacotherapy: A Pathophysiologic Approach*. 12<sup>th</sup> ed. New York: McGraw-Hill, 2022. (Accepted; ahead of publication).
3. Cipriani AB and **Crona DJ**. Prostate Cancer. In: Chisholm-Burns, MA, et al, eds. *Pharmacotherapy Principles & Practice*, 6<sup>th</sup> ed. New York: McGraw-Hill, 2022. Pages 1471-1485.
4. **Crona DJ** and Cipriani AB. Chapter e155: Renal cell carcinoma. In: DiPiro JT, et al, eds. *Pharmacotherapy: A Pathophysiologic Approach*. 11<sup>th</sup> ed. New York: McGraw-Hill, 2020.
5. **Crona DJ** and Auten JJ. Chapter 157: Kidney Cancer: A Time for Decision Level II. In: Schwinghammer TL et al, eds. *Pharmacotherapy Casebook: A Patient-Focused Approach*. 11th ed. New York: McGraw-Hill, 2020. Pages 402-404.
6. **Crona DJ** and Proctor AD. Prostate Cancer. In: Chisholm-Burns, MA, et al, eds. *Pharmacotherapy Principles & Practice*, 5<sup>th</sup> ed. New York: McGraw-Hill, 2018. Pages 1391-1404.
7. Walko CM and **Crona DJ**. Chapter e138: Renal cell carcinoma. In: DiPiro JT, et al, eds. *Pharmacotherapy: A Pathophysiologic Approach*. 10<sup>th</sup> ed. New York: McGraw-Hill, 2016. Online chapter.
8. **Crona DJ** and Auten J. Chapter 157: Kidney Cancer: Molecular Therapies Level II.. In: Schwinghammer TL, Koehler JM, eds. *Pharmacotherapy Casebook: A Patient-Focused Approach*. 10<sup>th</sup> ed. New York: McGraw-Hill, 2017. Pages 402-403.
9. Walko CM, **Crona DJ**. Chronic myelogenous leukemia. In: Schwinghammer TL, Koehler JM, eds. *Pharmacotherapy Casebook: A Patient-Focused Approach*. 9<sup>th</sup> ed. New York: McGraw-Hill, 2014. Pages 403-405.

## **EDITOR**

1. 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>.

## **NON-PEER-REVIEWED PUBLICATIONS**

1. 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>.
2. 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>.

## **ABSTRACTS, POSTERS AND PODIUM PRESENTATIONS**

(presenting author underlined)

1. Gdowski A, Gessner KH, Kounlavong E, Kim L, Kemper RM, **Crona DJ**, Wong K, Kim WY. *Enhanced detection and characterization of targetable EGFR and ERBB2 exon20 insertion mutations in urothelial carcinoma*. Abstract submitted to the 2023 ASCO Annual Meeting in Chicago, IL, June 2-6, 2023.
2. Kemper RM, Meng M, Damrauer JS, Kim WY, **Crona DJ**. *OTX-015 inhibits proliferation and migration in ARID1A-mutated bladder cancer*. Abstract accepted for a poster presentation at the AACR 2023 Annual Meeting.
3. Gonzalez Tineo S, Kemper RM, Tripathi SK, Buttery PH, Kim WY, James LI, **Crona DJ**. *Evaluating the potency of a first-in-class covalent antagonist of the H3K9me3 reader protein MPP8 in bladder cancer*. Abstract accepted for a poster presentation at the AACR 2023 Annual Meeting.
4. Dang V, Dunlap T, Kardouh M, Zhu J, Ptachcinski JR, **Crona DJ**. *A Pharmacometric Multistate Model for Longitudinal Clinical Outcomes in Allogeneic Hematopoietic Cell Transplant Patients Receiving Tacrolimus*. Abstract presented as a poster at the HOPA 2023 Annual Meeting.
5. Ma F, Ouyang P, Ramdass C, Miller J, Zhu J, Shaw JR, Ptachcinski JR, **Crona DJ**. *The Influence of Post-transplant Cyclophosphamide on Tacrolimus PK and Clinical Outcomes in Allogeneic Hematopoietic Stem Cell Transplant*. Abstract presented as a poster at the HOPA 2023 Annual Meeting.
6. Lines M, Kemper R, Wallace J, Bognaski J, Echols C, Garner L, **Crona DJ**, Phillips K. *Use of Allopurinol to Manage Skewed 6-Mercaptopurine Metabolism in Pediatric Maintenance Acute Lymphoblastic Leukemia Treatment*. Abstract presented as a poster at the HOPA 2023 Annual Meeting.
7. Liu C, Dunlap T, Zhu J, Ptachcinski JR, **Crona DJ**. *Estimating individual risk for acute graft versus host disease in allogeneic hematopoietic cell transplant recipients: a Bayesian approach*. Abstract presented as a poster at the ASHP Midyear Clinical Meeting in December 2022.
8. Bae S, Dunlap T, Kemper RM, Ptachcinski JR, **Crona DJ**. *Evaluation of a potential busulfan-posaconazole drug-drug interaction using Bayesian modeling*. Poster presented at the 2022 ACCP Global Conference on Clinical Pharmacy in October 2022. Abstract, number 61185.
9. Kemper RM, Meng M, **Crona DJ**. *Combined inhibition of BET proteins and PARP promotes impaired DNA damage repair response and cell cycle dysregulation in preclinical models of bladder cancer*. Poster presented at the 2022 AACR Conference on Cancer Epigenomics in Washington DC in October 2022.
10. Dunlap T, Weiner DL, Kemper R, DeVane SR, Ptachcinski JR, Armistead PM, **Crona DJ**. *Model-guided dosing of busulfan in patients receiving allogeneic hematopoietic cell transplant*. Poster presented at the 2022 ACCP Spring Meeting.
11. Kemper R, Mewada H, Damrauer J, Hardy PB, Frye SV, Pearce KH, Raab J, Kim WY, **Crona DJ**. *ARID1A-mutated bladder cancer cells are sensitized to BET protein inhibition with OTX-015*. Abstract presented at the 2022 AACR Annual Meeting in New Orleans, LA in April 2022.
12. DeVane SR, Zhu J, Kemper R, Dunlap T, Nguyen V, Grgic T, Shaw JR, Riches M, Trepte M, Armistead PM, Ptachcinski J, Weiner DL, Crona DJ. *Interim analysis of a prospective tacrolimus clinical pharmacology study in allogeneic hematopoietic stem cell transplant*. Abstract presented at the 2022 HOPA Annual Meeting in Boston, MA in March 2022.
13. Nance S, Ptachcinski J, **Crona DJ**. *A planned interim analysis of filgrastim vs. tbo-filgrastim effects on engraftment syndrome in autologous hematopoietic cell transplant*. Abstract presented at the 2022 HOPA Annual Meeting in Boston, MA in March 2022.
14. Dunlap T, Weiner DL, Kemper R, DeVane SR, Ptachcinski JR, Armistead PM, **Crona DJ**. *Model-guided*

*dosing of busulfan in patients receiving allogeneic hematopoietic cell transplant.* Presented at the 2022 UNC Pharmaceutical Sciences Research & Graduate Education Retreat in Chapel Hill, NC in March 2022.

15. Ratner L, Zhu J, Gower MN, Cipriani AB, **Crona DJ**, Lee CR. *Projected clinical actionability of preemptive multigene pharmacogenomic testing in bone marrow transplant and percutaneous coronary intervention patients.* Presented at the 2021 ACCP Annual Meeting in October 2021 (virtual).
16. Chen A, Nguyen V, Deal A, Armistead P, **Crona DJ**, Ptachcinski J. *A Phase III, Randomized, Placebo Controlled Evaluation of Olanzapine when Added to Standard Nausea & Vomiting Prophylaxis in Recipients of Hematopoietic Cell Transplant.* Presented at the 2021 ACCP Spring Meeting (virtual).
17. Quintanilha JCF, Geyer S, Wang J, Etheridge AS, Denning S, Racioppi A, Hammond K, **Crona DJ**, Peña CE, Jacobson S, Ghassan KA-A, Innocenti F. *Genetic predictors of sorafenib-induced diarrhea and hand-foot syndrome.* Abstract presented at the ASCO 2021 Annual Meeting in June 2021 (virtual).
18. Zhu J, Campagne O, Flynn G, Torrice CD, Patel T, Miller JM, Ptachcinski J, Mager D, Weiner DL, **Crona DJ**. *Application of a tacrolimus population pharmacokinetic model to adult allogeneic hematopoietic stem cell transplant patients.* Abstract presented as a podium presentation at the Transplantation and Cellular Therapy Meetings of ASTCT and CIBMTR in February 2021 (virtual).
19. Werner T, Kemper R, Szeto AH, Cipriani AB, **Crona DJ**. *Impact of Type 2 Diabetes Mellitus on Renal Cell Carcinoma Prognosis.* Abstract presented at the American College of Clinical Pharmacy's Annual Meeting held virtually in October 2020 (virtual).
20. Kim S, Szeto AH, Whang YE, **Crona DJ**. *A real-world evaluation of radium-223 in combination with abiraterone or enzalutamide for the treatment of metastatic castration-resistant prostate cancer.* Abstract presented at the American College of Clinical Pharmacy's Annual Meeting held virtually in October 2020.
21. Derebail V, Zhu, Martin KA, Grant RP, Patel SM, Maffuid KA, Froment AB, Torrice CD, Key NS, **Crona DJ**. *Clinical pharmacology of apixaban in nephrotic syndrome.* Abstract PO2375 presented at the American Society of Nephrology's ASN Kidney Week 2020 meeting in Denver, CO in October 2020 (virtual).
22. Zhu J, Wu S, Beechinor R, Kemper R, Bukkems L, Mathot R, Cnossen M, Gonzalez D, Chen S, Key N, **Crona DJ**. *External evaluation of a perioperative FVIII population pharmacokinetic model for hemophilia A patients: final results.* Abstract presented as a podium presentation at the American College of Clinical Pharmacology Annual Meeting in September 2020 (virtual).
23. Zhu J, Wu S, Beechinor R, Kemper R, Bukkems L, Mathot R, Cnossen M, Gonzalez D, Chen S, Key N, **Crona DJ**. *External evaluation of a perioperative FVIII population pharmacokinetic model for hemophilia A patients: preliminary results.* Abstract presented at the 10th Symposium on Hemostasis in April 2020 in Chapel Hill, NC (virtual).
24. 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]. In Proceedings of the Annual Meeting of the American Association for Cancer Research 2020; 2020 Apr 27-28 and Jun 22-24. Philadelphia (PA): AACR; *Cancer Res.* 2020;80(16 Suppl): Abstract 1743.
25. Cauble M, Wise A, Szeto AH, Patel S, **Crona DJ**, Wiltshire T, Austin CA, Ward K, Beaty J, Kistler CE. *Nursing home stakeholder perspectives on the use of pharmacogenetics in medical care.* Submitted to the American Geriatrics Society Annual Conference in Long Beach, CA, May 2020.
26. 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.
27. Quintanilha JCF, Racioppi A, Wang J, Denning S, Etheridge AS, Peña CE, **Crona DJ**, Lin D, Innocenti F. *PIK3R5 genetic predictors of hypertension induced by VEGF-pathway inhibitors.* Abstract accepted for poster presentation (118P) at ESMO 2019 Congress in Barcelona, Spain. *Annals of Oncology.* 2019;30(5):v36.
28. **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 (selected for publication only: e16582).
29. 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) - 257th ACS National Meeting, Orlando, March 31st-April 4th, 2019.*

30. 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*. Poster presentation at the 2019 HOPA Annual Conference. Fort Worth, TX. April 3-6, 2019.
31. 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*. Poster presentation at the 2019 HOPA Annual Conference. Fort Worth, TX. April 3-6, 2019.
32. 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*. Poster presentation at the 2019 HOPA Annual Conference. Fort Worth, TX. April 3-6, 2019.
33. Cavallari L, 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).
34. **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*. Poster presentation (abstract 305) at ASCO Genitourinary Cancers Symposium in San Francisco, CA, Feb 2019.
35. Rose TL, Hayward M, Salazar A, Eulitt P, McGinty K, 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*. Accepted for poster presentation at ASCO Genitourinary Cancers Symposium in San Francisco, CA, Feb 2019.
36. 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.
37. 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>.
38. 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.
39. 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*. Poster presented at the American Society of Clinical Oncology Annual Meeting in Chicago IL, June 2018.
40. Chiarella A, Butler K, Wang A, Lu D, Torrice C, **Crona DJ**, Jin J, Hathaway N. *New chemically driven strategies for allele specific regulation*. Poster presented at 2018 Igniting Innovation Symposium in Chapel Hill NC, April 2018.
41. **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*. Abstract and poster presentation at AACR 2018 Annual Meeting in Chicago, IL in April 2018. Abstract 1625.
42. White N, Guzman B, Gilliland M, Milowsky, MI, **Crona DJ**, Kashuba ADM, Rosen EP. *Detection of Renal Cell Carcinoma Multikinase Inhibitors in Hair by Mass Spectroscopy Imaging to Measure Patient Adherence*. 10th Mass Spectrometry: Applications to the Clinical Lab (MSACL) Conference, Palm Springs, CA, January, 2018.
43. 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)*. Poster presented at 2017 PharmSci Conference, Chapel Hill, NC, May 2017.
44. 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)*. 13<sup>th</sup> HOPA Annual Conference, Anaheim CA, March 2017. Poster # CT74.
45. 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.

46. **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.
47. **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.* 26th EORTC-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics, Barcelona, Spain, November 2014. Meeting abstract #66.
48. **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.
49. **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.* Abstract accepted for at 10<sup>th</sup> Annual HOPA Annual Conference, New Orleans, LA, March 2014.
50. 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.* ASHP Midyear Clinical Meeting, Orlando FL, December 2013. Meeting abstract # 9-087.
51. **Crona D**, Skol A, Ahsan H, Peña C, Innocenti F. *Germline Genetic Markers of Overall Survival in Renal Cell Carcinoma Patients Treated with Sorafenib.* 24th EORTC-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics, Dublin Ireland, November 2012. Meeting abstract # 494.
52. **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.* 24th EORTC-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics, Dublin Ireland, November 2012. Meeting abstract # 484.
53. **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.* South East SAS Users Group (SESUG) 2012 Conference, Cary NC, October 2012. Abstract # PO-11.
54. **Crona D**, **MacLaren R**. Ghrelin and motilin expression in critically ill patients tolerant and intolerant to gastric enteral nutrition. *Critical Care Medicine.* 2010; 38: abstract number 261.
55. **Crona D**, **MacLaren R**. *Ghrelin and motilin expression in critically ill patients tolerant and intolerant to gastric enteral nutrition.* Presented poster at the University of Colorado Health Sciences Center Research Symposium, April 2010.
56. 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.* Poster presented at the Fifth European Respiratory Society Lung Science Conference, Taormina Italy, March 2007.
57. **Crona D**, Carr M, West, J, Stith B. *A Method to Separate Detergent-Insoluble Lipid Membrane Rafts from Xenopus laevis Oocytes.* Presented poster at the UCD Health Sciences Center Research Day, May 2006.

## **SELECT INVITED PRESENTATIONS**

(since UNC ESOP faculty appointment in October 2015)

<b>The Ongoing Quest for Perfection...Or At Least Precision: Tacrolimus Dosing In Bone Marrow Transplant Patients</b> <i>Clinical Pharmacology Grand Rounds</i> <i>Johns Hopkins Medical University, Baltimore, MD</i>	<b>April 2023</b>
<b>The Ongoing Quest for Perfection...Or At Least Precision: Tacrolimus Dosing In Bone Marrow Transplant Patients</b> <i>Divisional Seminar, Department of Pharmacy Practice and Science</i> <i>University of Kentucky College of Pharmacy, Lexington, KY</i>	<b>March 2023</b>
<b>Precision oncology therapeutics: for the <u>love</u> of the patient</b> <i>Division of Pharmacotherapy Seminar</i> <i>University of Texas College of Pharmacy, San Antonio TX</i>	<b>Feb 2023</b>
<b>The Ongoing Quest for Perfection...Or At Least Precision: Tacrolimus Dosing In Bone Marrow Transplant Patients</b> <i>Clinical Pharmacy Translational Sciences Seminar</i>	<b>April 2022</b>

*Department of Clinical Pharmacy, University of Michigan College of Pharmacy, Ann Arbor, MI*

<b>Pharmacogenomics and Decision Support in the EHR (Focus: Tacrolimus in allo-HCT)</b>	<b>Oct 2021</b>
<i>UNC Program for Precision Medicine in Health Care Mini-Symposium</i>	
Delivered as virtual content due to COVID-19	
<b>Oral versus Injectable Androgen Deprivation Therapy for Initial Treatment of Advanced Prostate Cancer</b>	<b>June 2021</b>
<i>Oncology Learning Network "Great Debates &amp; Updates" (Oncology Pharmacy)</i>	
Delivered as virtual content	
<b>The Ongoing Quest for Perfection...Or At Least Precision: Tacrolimus Dosing in Bone Marrow Transplant Patients</b>	<b>Dec 2020</b>
<i>Presentation delivered at the Mercer College of Pharmacy Seminar, Atlanta, GA</i>	
Delivered as virtual content due to COVID-19	
<b>Combined Inhibition of PARP and BET Proteins in Preclinical Models of Urothelial Bladder Cancer</b>	<b>Nov 2020</b>
<i>Presentation delivered to the Carolina Chromatin Consortium, Chapel Hill, NC</i>	
Delivered as virtual content due to COVID-19	

### **CONTINUING EDUCATION**

(since UNC ESOP faculty appointment in October 2015)

<b>Pharmacogenetics 101: A Primer for Pharmacists</b>	<b>Nov 2017</b>
Pharmacogenetics primer and panel discussion	
<i>North Carolina Association of Pharmacists 2017 Annual Meeting, Winston-Salem, NC</i>	
<b>ACPE number:</b> 0046-9999-17-210-L01-P	
<b>How to Interpret Patient Genotyping Data</b>	<b>May 2017</b>
Pain Cases and panel discussion	
<i>UNC PharmSci 2017 Conference in Chapel Hill, NC</i>	
<b>ACPE number:</b> 0046-9999-17-044-L01-P	
<b>Precision Medicine Call to Action; Deciphering the Genetic Code in Clinical Practice</b>	<b>April 2016</b>
<i>Durham/Orange County Pharmacists Association Meeting, 2016</i>	
<b>ACPE number:</b> 0046-9999-15-272-L01-P	

## **F) Teaching Activities**

### **DIDACTIC**

**UNC Eshelman School of Pharmacy**

**Graduate, PhD in Pharmaceutical Sciences**

**Course Director**

DPET 822: Advanced Clinical Pharmacy **2019–Present**

**Instructor**

DPET 833: Experimental Design Considerations in Clinical Research **2020–Present**

"Selecting an appropriate and well-defined study population" lecture, 2020–2022

"Oncology and targeted-therapy clinical trial designs" lecture, 2021–2022

DPET 831: Quantitative Methods in Clinical Research **2013**

"Clinical Data Validation Techniques" lecture

DPET 831, Quantitative Methods in Clinical Research **2012**

Advanced Teaching Assistant and Recitation Instructor

**Professional, Doctor of Pharmacy**

**Division Director (DPET)**

**2022–Present**

PHCY 624: Research and Scholarship Program 1

PHCY 725: Research and Scholarship Program 2



## PHCY 726: Research and Scholarship Program 3

### Instructor

PHCY 611: Advanced Clinical Pharmacology “Clinical Pharmacology of Biologics” lecture, 2016–2022 “Clinical Pharmacology in Hematology/Oncology” lecture, 2016–2018	2016–Present
DPET 873: Therapeutics through Genomics “Cancer drug therapy: tumor and host” lecture, 2022	2022–Present
DPMP 512: Pharmaceuticals and Drug Delivery Systems “Monoclonal Antibodies” lecture (with Shawn Hingtgen, PhD)	2019
PHCY 822: Hematology/Oncology Elective “Prostate Cancer” lecture, 2018-2019 “Cancer-Related Pain” lecture, 2018	2018–2019
DPET 812, Advanced Hematology/Oncology Elective “Genomic Profiling in Oncology” lecture “Renal Cell Carcinoma” lecture	2012–2017
PHCY 447, Hematology/Oncology “Prostate Cancer” lecture	2012–2017
PHCY 450, Problems in Pharmacotherapy “Oncology Case”, Small Group Instructor and Case Author	2012–2014
PHCY 402-404 Small Group Instructor: Dermatology/Endocrinology, Cardiology/Nephrology, Pulmonary/Gastroenterology, Neurology/Psychiatry, Hematology/Oncology, and ID cases	2010–2014

### **UNC School of Medicine**

#### **Professional, Doctor of Medicine**

### Instructor

MEDI 140: Molecules to Cells “Basic Pharmacology” lecture and small group instructor	2012–2014
MEDI 238: Respiratory System “Pulmonary Pharmacology” lecture and small group instructor	2013
MEDI 142: Integrative Function and Its Cellular Basis “Autonomic System Pharmacology” lecture and small group instructor	2012–2013

### **MENTORING**

#### **Post-Doctoral**

##### *Post-Doctoral Research Fellows*

#### Major Advisor

<b>Surya Tripathi, PhD</b>	2022–Present
<b>Travis Nelson, PhD</b>	2021–Present

(Co-Major Advisor: Nate Hathaway, PhD, from CBMC)

<b>Arul Muralidharan, PhD</b>	2019–2021
(Co-Major Advisor: Dhiren Thakker, PhD, from DPET)	

<b>Jenna Foyt, PharmD</b>	2016–2018
---------------------------	-----------

##### *UNC and Duke T32 in Clinical Pharmacology Post-Doctoral Fellows*

#### Advisory Committee

<b>Tyler Dunlap, PharmD</b>	2022–Present
<b>Ryan Beechinor, PharmD, BCPS, BCOP</b>	2016–2018

##### *UNC Clinical Research/Drug Development/Medical Affairs/PKPD Fellows*

#### Major Research Advisor

<b>Christopher Ramdass, PharmD (GSK, Medical Affairs)</b>	2022–Present
---	--------------



<b>Feiyun Ma, PharmD</b> (PPD, Drug Development) (Co-Advisor: Amber Cipriani, PharmD, BCOP from DPET)	<b>2022–Present</b>
<b>Miramar Kardouh, PharmD</b> (Cetara, PK/PD) (Co-Advisor: Kim Brouwer, PharmD, PhD from DPET)	<b>2022–Present</b>
<b>Anna DeVane, PharmD</b> (PPD, Drug Development)	<b>2021–Present</b>
<b>Tyler Dunlap, PharmD</b> (IQVIA, PK/PD) (Co-Advisor: Yanguang Cao, PhD from DPET)	<b>2021–2022</b>
<b>Veronica Nguyen, PharmD</b> (GSK Medical Affairs)	<b>2020–2022</b>
<b>Allison Symonds, PharmD, MPH</b> (Cetara, PK/PD) (Co-Advisor: Bob Dupuis, PharmD from DPET)	<b>2021–2022</b>
<b>Sheel Patel, PharmD</b> (PPD, Drug Development)	<b>2019–2021</b>
<b>Andy Szeto, PharmD</b> (United Therapeutics, Drug Development)	<b>2018–2020</b>
<b>Margo Sketch, PharmD, MPH</b> (United Therapeutics, Medical Affairs)	<b>2017–2019</b>
<b>Tejendra Patel, PharmD</b> (GSK, Medical Affairs)	<b>2016–2018</b>

#### *UNC Pharmacy Residents*

<b>Mandee Lines, PharmD</b> (Research Advisor) (Co-Advisor: Kynlon Phillips, PharmD, BCPS, BCOP, CPP)	<b>2022-2023</b>
<b>Jordan Wallace, PharmD</b> (Research Advisor) (Co-Advisor: Kynlon Phillips, PharmD, BCPS, BCOP, CPP)	<b>2021-2022</b>
<b>Taylor Dennison, PharmD</b> (Research Advisor) (Co-Advisor: Aimee Faso, PharmD, BCOP, CPP)	<b>2020–2021</b>
<b>Tyler Bucci, PharmD, MSPS</b> (Major Research Advisor)	<b>2018–2019</b>
<b>Kevin Chen, PharmD, MS</b> (PGY-1 Pharmacy Practice Mentor)	<b>2018–2019</b>
<b>Lauren Drawdy, PharmD</b> MUE entitled “ <i>Evaluation of FDA approved and off-label use of PD1 inhibitors</i> ” (Co-Advisor: Amber Cipriani, PharmD)	<b>2018–2019</b>
<b>Robert Rose, PharmD</b> MUE entitled “ <i>Evaluation of FDA approved and off-label use of PD1 inhibitors</i> ” (Co-Advisor: Amber Cipriani, PharmD)	<b>2018–2019</b>
<b>Sarah Stump, PharmD, BCPS</b> (Research Advisor)	<b>2018</b>
<b>Amanda Sue Cass, PharmD, BCPS</b> (Major Research Advisor)	<b>2018</b>
<b>Johlee Odinet PharmD, BCPS</b> (Research Advisor)	<b>2018</b>
<b>Aaron Devanathan, PharmD</b> (PGY-1 Pharmacy Practice Mentor)	<b>2016–2017</b>
<b>Jordan Miller, PharmD, BCOP, CPP</b> (Major Research Advisor)	<b>2016–2017</b>

#### **Graduate**

##### *Doctor of Philosophy (Ph.D.) in Pharmaceutical Sciences*

##### PhD Major Advisor

<b>Stephany Gonzalez Tineo, BS</b> (DPET)	<b>2022–Present</b>
<b>Jing “Daisy” Zhu, BS, PharmD</b> (DPET) <u>Dissertation Title:</u> “ <i>Development and validation of a precision dosing model to optimize tacrolimus dosing in adult recipients of allogeneic hematopoietic stem cell transplant</i> ”	<b>2017–2021</b>

##### PhD Research Rotation

<b>Abigail Klein, BS</b> (DPET)	<b>Spring 2022</b>
<b>William Murphy, PharmD</b> (DPET)	<b>Fall 2019</b>
<b>Kaitlyn Maffuid, BS</b> (DPET)	<b>Fall 2018</b>

##### PhD Dissertation Committee

<b>Tim Qi, BS</b> (DPET)	<b>2022–Present</b>
<b>Dongbo Lu, MS</b> (CBMC) <u>Dissertation Title:</u> “ <i>Development and optimization of chemical epigenetic modifiers</i> ”	<b>2019–2022</b>

M.S. in Pharmacy (Visiting Scholars, University College of London)

Research Advisor

**Corinna Wong**

2019

Thesis title: "Birabresib (OTX-015) effects on cyclin-dependent kinases 4, 6 and cyclin D1"

**Neha Khera**

2019

Thesis title: "Identification and Biological Evaluation of Cyclin Dependent Kinase Like-4 Inhibitors in HCT-116 Colorectal Cancer Cells"

(Co-Advisor: Alison Axtman, PhD from CBMC)

## Professional

Doctor of Pharmacy (Pharm.D.)

Research Advisor, Research and Scholarship Program (RASP) pathway

**Hannah Bruschi, BS**

2023–Present

*"The role of MPP8 inhibition in preclinical models of AR-driven advanced prostate cancer"*

**Sara Jubas, BS**

2022–Present

*"Association analyses of myeloablative busulfan PK and 30-day chimerism rates among allogeneic hematopoietic stem cell transplant recipients"*

**Pu (Philip) Ouyang, BS**

2022–Present

*"Leveraging advanced clinical pharmacology methods to characterize oral tacrolimus bioavailability in allogeneic hematopoietic cell transplant recipients"*

**Jessica Willey, BS**

2022–Present

*"Evaluation of Macrocytosis as a Biomarker of Tumor Response to Lenvatinib Mono- or Combination Therapy"*

(Co-mentored with Amber Cipriani, PharmD, BCOP from DPET)

**Sabrina Nance, BS**

2021–2023

Honors Thesis Title: "Engraftment Syndrome in Hematopoietic Cell Transplant"

(Co-mentored with Jon Ptachcinski, PharmD, BCOP, CPP from PACE)

**Jacob Robinson, BS, MS**

2020–2023

Honors Thesis Title: "Epithelial to Mesenchymal Transition Mechanisms in Metastatic Prostate Cancer: The Role of MPP8"

**Stephanie Kim, BA**

2019–2021

Honors Thesis Title: "Evaluation of radium-223 in combination with abiraterone or enzalutamide for the treatment of metastatic castration-resistant prostate cancer"

**Taylor White (néé Werner), BS**

2019–2021

Honors Thesis Title: "A retrospective analysis of metformin in patients with kidney cancer"

**Kristin Nelson, BS**

2018–2021

Honors Thesis Title: "Macrocytosis as a predictive biomarker of clinical outcomes in chronic myelogenous leukemia patients treated with oral TKIs"

**Andrew Tiemann, BS**

2018–2020

Honors thesis: "Macrocytosis as a predictive indicator of clinical outcomes in patients treated with oral TKIs"

**Mehak Aggarwal, BS**

2017–2019

Honors thesis: "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"

PharmD Research Advisor (non-RASP pathway)

**Viet Dang, BS**

2022–Present

*"Time-to-event modeling of acute graft versus host disease in allogeneic hematopoietic stem cell transplant recipients receiving tacrolimus"*

**Catherine Liu, BS**

2022–Present

*"Estimating individual risk for acute graft versus host disease in allogeneic hematopoietic cell transplant recipients: a Bayesian approach"*

**Sun Bae, BS**

2021–Present

*"Evaluation of a potential busulfan-posaconazole drug-drug interaction using Bayesian modeling"*

**Haneen Ottallah, BS** 2020–Present

*"Infrared Matrix-Assisted Laser Desorption Electrospray Ionization (IR-MALDESI) Mass Spectrometry Imaging of Hair from Renal Cell Carcinoma Patients to Characterize Tyrosine Kinase Inhibitor Concentrations"*

**Jacki Sawyers (née Day), BS** 2017–2019

*"Direct Oral Anticoagulants as Secondary Prophylaxis in Classical Myeloproliferative Neoplasms"*

**Allison Karabinos, BS** 2014–2016

Honors title: "Germline genetic markers of sorafenib-induced toxicities in renal cell carcinoma patients treated with sorafenib"

(Co-advisor: Federico Innocenti, MD, PhD from DPET)

**Danielle Schlafer, BS** 2012–2014

Honors title: "Genetic determinants of gemcitabine-induced neutropenia"

(Co-advisor: Federico Innocenti, MD, PhD from DPET)

## Undergraduate

University of North Carolina

Research Advisor

**Bhavika Chowdhury** (major: Biology) 2022–Present

**Dominic Tecza** (major: Biology) 2021–2022

**Heemaja Mewada** (majors: Biochemistry and Economics) 2020–2022

**Ryan Kemper** (majors: Chemistry and Biology) 2019–2022

**Gabrielle MacKenzie** (major: Biology) 2019–2020

## Staff

**Ryan Kemper, BA** (Research Specialist) 2022–Present

**Manfred "Shaowu" Meng, PhD** (Research Associate) 2022–Present

**Chad Torrice, BS** (Research Specialist) 2016–2021

**Heemaja Mewada** (Undergraduate Work Study Student) 2019–2020

## G) Research Funding (Grants)

Total Current and Completed Grant Support in Funding: **\$2,976,000 total costs** (\$2,289,000 in direct costs)

### Current:

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

**Funding Agency:** American Cancer Society – Research Scholars Grant (RSG-21-091-01-ET)

**Level of Effort:** 15%

**Funding Agency Point of Contact:** Rachel Commander, email: rachel.commander@cancer.org

**Project Period:** 01/01/2022–12/31/2025

**Level of Funding:** \$660,000 direct costs (\$792,000 total costs)

**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.

**2. Title:** "STTR: Site-specific epigenetic activation of *TP53* to improve cancer therapy"

**Funding Agency:** Epigenos Bioscience, Inc./NIH-NIGMS (1R41GM146326-01A1)

**Level of Effort:** 8%

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

**Project Period:** 9/16/2021-9/15/2023 (NCE)

**Level of Funding:** \$400,000 direct costs (\$240,000 subaward for UNC, \$120,000 each to the Crona and Hathaway labs)

**Role:** UNC Co-PI (UNC subcontract 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.

**3. Title:** “Discovery of a First-In-Class MPP8 Antagonist to Reverse Lineage Plasticity in Bladder Cancer”

**Level of Effort:** 25%

**Funding Agency:** Department of Defense CDMRP FY20 Peer Reviewed Cancer Research Program – Career Development Award (W81XWH2110876)

**Point of Contact:** Amie D. Bunker (PRCRP Scientific Officer), email: amie.d.bunker.civ@mail.mil

**Project Period:** 09/15/2021-09/14/2024

**Level of Funding:** \$400,000 direct costs (\$622,000 total costs)

**Role:** PI

**Goals:** This study proposes a technically innovative strategy to target an epigenomic regulator of EMT in preclinical models of advanced bladder cancer.

**Specific Aims:** 1. Validate MPP8 as a central epigenomic regulator of EMT in bladder cancer. 2. Evaluate and optimize physiochemical properties of the novel MPP8 antagonists. 3. Evaluate MPP8 antagonist effects on EMT reversal in preclinical models of bladder cancer.

**4. Title:** “Discovery of a First-In-Class MPP8 Antagonist to Reverse Lineage Plasticity in Treatment-Resistant Prostate Cancer”

**Level of Effort:** 20%

**Funding Agency:** Department of Defense CDMRP FY20 Prostate Cancer Research Program – Idea Development Award (W81XWH2110748)

**Point of Contact:** Nrusingha Mishra, PhD (PRCP Scientific Officer), email: nrusingha.mishra.civ@mail.mil

**Project Period:** 09/01/2021-08/31/2024

**Level of Funding:** \$600,000 direct costs (\$933,000 total costs)

**Role:** PI

**Goals:** This study proposes a technically innovative strategy to target an epigenomic regulator of EMT in preclinical models of advanced prostate cancer.

**Specific Aims:** 1. Design and synthesize potent MPP8 antagonists. 2. Validate MPP8 as a central epigenomic regulator of EMT in prostate cancer. 3. Evaluate MPP8 antagonist effects on EMT reversal in preclinical models of prostate cancer.

**5. 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:** 2% (no salary; cost sharing)

**Funding Agency:** Merck Oncology Translational Studies Grant

**Project Period:** 10/01/2018-09/31/2026

**Level of Funding:** \$844,615 total costs (\$50,000 subaward to Crona lab)

**Role:** Co-Investigator (PI: Tracy Rose, 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 *NFκB* 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 *NFκB* gene signatures in blood and tumor samples collected before and after treatment with pembrolizumab in combination with entinostat, compared to pembrolizumab alone.

**6. Title:** “A Phase 1b of Apixaban in Nephrotic Syndrome Patients”

**Level of Effort:** 1% (no salary; cost sharing)

**Funding Agency:** American College of Clinical Pharmacy

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

**Project Period:** 09/15/2018-05/31/2023 - NCE

**Level of Funding:** \$30,000

**Role:** PI

**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. Confirm the safety of steady-state apixaban. 2. Quantify inter-individual variation in steady-state apixaban plasma concentrations between nephrotic syndrome patients and control subjects. 3. Estimate steady state apixaban pharmacokinetic parameters in nephrotic syndrome patients and control subjects. 4. Estimate steady-state apixaban pharmacodynamic parameters in nephrotic syndrome patients and control subjects.

### **Pending:**

**1. Title:** "Pharmacogenetics impact on the clinical effects of opiates in mechanically ventilated adults."

**Funding Agency:** National Institutes of Health (K76: Paul B. Beeson Emerging Leaders Career Development Award in Aging)

**Level of Effort Proposed:** 2% (no salary; cost sharing)

**Level of Proposed Funding:** \$225,000 (each year x 5 years) (\$25,000 subaward to Crona lab each year)

**Role:** Mentor (PI: C. Adrian Austin, MD, MSCR)

**Specific Aims:** 1. Evaluate the effect of SNPs on the PK (serum drug concentrations) of fentanyl in mechanically ventilated adults. 2. Evaluate the impact of SNPs on the PD (ICU delirium, duration of mechanical ventilation) of fentanyl in mechanically ventilated adults. 3. Assess the impact of variability in the SNP rs4680 (*COMT*) and other high-impact SNPs on long-term (six-month) cognitive function after critical illness.

**2. Title:** "Characterization and pharmacokinetics of carcinogenic urinary biomarkers amongst e-cigarette smokers."

**Funding Agency:** Bladder Cancer Research Network

**Level of Effort Proposed:** 2% (no salary; cost sharing)

**Level of Proposed Funding:** \$50,000 (each year x 2 years) (\$10,000 subaward to Crona lab each year for to cover partial salary of Crona Lab PK/PD fellow)

**Role:** Mentor for Aims 2-3 (PI: Zachary Feuer, MD)

**Specific Aims:** 1. Evaluate qualitative differences in urinary carcinogens amongst e-cigarette users, combustible tobacco users and never-smokers. 2. Evaluate quantitative differences in urinary carcinogens amongst e-cigarette users, combustible tobacco users and never-smokers. 3. Develop a population pharmacokinetic model to evaluate bladder exposure to urinary carcinogens introduced by the use of combustible tobacco versus e-cigarettes.

**3. Title:** "ALDH1L1 loss as an opportunity for targeted gene therapy in prostate cancer"

**Funding Agency:** National Institutes of Health/National Cancer Institute (R01)

**Level of Effort Proposed:** 5%

**Level of Proposed Funding:** \$500,000 (each year x 5 years) (\$50,000 subaward to Crona lab each year)

**Role:** Co-I (PI: Sergey Krupenko, PhD)

**Specific Aims:** 1. Evaluate to what extent *ALDH1L1* silencing is a marker of early tumorigenesis and aggressive phenotype prostate cancer. 2. Explore proliferation-advantageous metabolic alterations in *ALDH1L1*-deficient prostate tumors using mass spectrometry-based untargeted metabolomics. 3. Investigate targeted delivery of *ALDH1L1* as the basis for gene therapy in solid tumors.

### **Completed:**

**1. Title:** "Development of a population pharmacokinetic model to optimize tacrolimus dosing in adult recipients of allogeneic hematopoietic stem cell transplant" (NCT04645667)

**Funding Agency:** American Foundation for Pharmaceutical Education

**Level of Effort:** 1% (no salary; cost sharing)

**Funding Agency Point of Contact:** Krista Fuentes, email: fuentes@afpepharm.org

**Project Period:** 09/01/2021-08/31/2022

**Level of Funding:** \$10,000

**Role:** Faculty Advisor (UNC PI: Daisy Zhu, PharmD)

**Goals:** The primary goal of this award is to identify clinical and genetic factors that influence tacrolimus pharmacokinetics/pharmacodynamics so that we can dose bone marrow transplant patients more precisely and effectively.

**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 oral tacrolimus starting dose and aGVHD incidence; 3. Establish a tacrolimus target exposure and develop initial tacrolimus dosing regimens for different sub-populations of allogeneic HCT patients.

**2. Title:** “STTR: Chemically controlling chromatin to treat Friedreich's Ataxia”

**Funding Agency:** Epigenos Bioscience, Inc./NIH (1R41TR003245-01)

**Level of Effort:** 8%

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

**Project Period:** 04/01/2020-09/30/2022

**Level of Funding:** \$140,000 direct costs (\$100,000 subaward for UNC to Crona and Hathaway labs)

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

**Goals and Aims:** The primary goal of this Phase 1 STTR Award is to evaluate a dCas9-FKBP-CEM gene expression modulation system in preclinical models of Friedreich's Ataxia. 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.

**3. Title:** “Epithelial mesenchymal transition mechanisms in metastatic prostate cancer: the role of MPP8”

**Funding Agency:** American Foundation for Pharmaceutical Education – Gateway to Research Award

**Level of Effort:** 1% (no salary; cost sharing)

**Funding Agency Point of Contact:** Krista Fuentes, email: fuentes@afpepharm.org

**Project Period:** 06/01/2021-05/31/2022

**Level of Funding:** \$5,000

**Role:** Faculty Advisor (UNC PI: Jacob Robinson, MS)

**Goals:** The overall goal of this research is to determine if abrogation of MPP8 signaling, either through genomic knockout or chemical antagonism, will restore CDH1/E-Cadherin expression or attenuate EMT in preclinical models of enzalutamide-resistant metastatic castration-resistant prostate cancer.

**Aims:** 1. Characterize the role of MPP8 as an epigenomic regulator of *CDH1*/E-cadherin expression; 2. Evaluate the effects of covalent chemical antagonism by UNC7713 on MPP8/MPP8, CDH1/E-cadherin, CDH2/N-cadherin expression.

**4. Title:** “Chemically catalyzed epigenetic gene regulation in prostate cancer”

**Level of Effort:** 10% (no salary; cost sharing)

**Funding Agency:** UNC Eshelman Institute for Innovation - Tier 2 Translational Award

**Funding Agency Point of Contact:** Alexandra Oak, email: alexandraoak@unc.edu

**Project Period:** 06/01/2019-5/31/2022

**Level of Funding:** \$250,000 direct costs

**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 modulating 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 preclinical 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.

**5. Title:** “Preliminary evaluation of TKI exposure-response relationships in real world patients (RWPs) with chronic myelogenous leukemia (CML)” (NCT03885830)

**Level of Effort:** 3%



**Funding Agency:** Hematology/Oncology Pharmacy Association

**Project Period:** 3/01/19-8/31/21

**Level of Funding:** \$50,000

**Role:** PI

**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.

**6. Title:** "Precision Dosing of TKIs for Real World Patients with CML" (NCT03885830)

**Level of Effort:** 5% (no salary; cost sharing)

**Funding Agency:** UNC Eshelman Institute for Innovation

**Project Period:** 06/01/2018-05/31/2021

**Level of Funding:** \$50,000

**Role:** PI

**Goals:** To collect pharmacokinetic and pharmacodynamic data from real-world patients with chronic phase CML who were 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.

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

**Level of Effort:** 1% (no salary; cost sharing)

**Funding Agency:** NC TraCS Institute (550KR221910)

**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.

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

**Level of Effort:**

1% (no salary; cost sharing)

**Funding Agency:** NC TraCS Institute (2KR1131906)

**Project Period:** 05/01/2019-04/30/2020

**Level of Funding:** \$2,000

**Role:** PI

**Goals:** This study proposed 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.

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

**Level of Effort:** 1% (no salary; cost sharing)

**Funding Agency:** IBM Junior Faculty Development Award

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

**Level of Funding:** \$10,000

**Role:** PI

**Goals:** This UNC Junior Faculty Development Award proposed research that provided preliminary for a future



K08/R01 submission to the National Cancer Institute. The focus of the project is to evaluate the rational combination of the PARP inhibitor olaparib and the bromodomain inhibitor OTX-015 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.

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

**Level of Effort:** 2% (no salary; cost sharing)

**Funding Agency:** NC TraCS Institute (550KR191801)

**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 medical intensive care unit (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.

**11. Title:** "Center for Allele Specific Epigenetic Regulation (CAS<sup>R</sup>)"

**Level of Effort:** 10% (no salary; cost sharing)

**Funding Agency:** UNC Eshelman Institute for Innovation

**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 was to 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 AR signaling axis.

**12. Title:** "Clinical Implementation of Pharmacogenomics: The Actionable Genome"

**Level of Effort:** 2% (no salary; cost sharing)

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

**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 was 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.

**13. Title:** "Influence of the Nephrotic Syndrome on the Safety, Pharmacokinetics and Pharmacodynamics of Apixaban" (NCT02599532)

**Level of Effort:** 5% (no salary; cost sharing)

**Funding Agency:** NC TraCS Institute (550KR161709)

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

**Level of Funding:** \$50,000

**Role:** PI

**Goals:** The major goal of this Phase 1a study was 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. Establish safety of apixaban in nephrotic syndrome patients. 2. Quantify inter-individual variation in apixaban plasma concentrations between NS patients and matched controls. 3. Estimate apixaban PK parameters in nephrotic syndrome patients and matched controls. 4. Estimate apixaban PD parameters in nephrotic syndrome patients and matched controls.

**14. Title:** "Validation of genetic markers for cytotoxic response to sorafenib in MEF cells"

**Level of Effort:** N/A

**Funding Agency:** NC TraCS Institute (2KR851603)

**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.

## H) Professional Service and Affiliations

### Professional Service

#### American Cancer Society

Jan 2023

Scientific Reviewer (Ad Hoc)

Experimental Therapeutics section

Reviewer for Clinical Scholar Research Grants, Clinical Scientist Development

Grants, and Discovery Boost Grants

#### National Institutes of Health

Oct 2021

Scientific Reviewer (Ad Hoc)

Center for Scientific Review - Drug Discovery and Molecular

Pharmacology Study Section (Early Career Reviewer)

#### University of North Carolina

#### University of North Carolina Eshelman School of Pharmacy (ESOP)

##### Standing Committees

RASP Oversight Committee (DPET Director)

2022–Present

PIPC v2 Research Working Group Member

2020–Present

Committee to Optimize Graduate Student Selection (COGSS)

2018–2020

ACPE Accreditation subcommittee (Standards 20 and 22)

2018–2020

Graduate Education Committee, UNC Eshelman School of Pharmacy

2017–2020

Curricular Transformation Immersion in Scientific Inquiry and Scholarship subcommittee

2013–2014

##### Miscellaneous

Interviewer, UNC PharmD Admissions (Multiple Mini Interviews)

2020–Present

Student Health Action Coalition (SHAC) pharmacist preceptor at clinic (Carrboro)

2011–Present

SHAC Outreach pharmacist preceptor at Durham Rescue Mission clinic

2011–Present

Case Reviewer, ASHP Clinical Skills Competition

2018–2019

Southern Women's Health Fair pharmacist preceptor (APhA Women's Health initiative)

2012–2014

APhA-ASP Generation Rx initiative, pharmacist preceptor

2012–2013

Interfaith Council Homeless Clinic, pharmacist preceptor

2010–2012

### Division of Pharmacotherapy and Experimental Therapeutics

<u>Administrative</u>	
Division Director of Graduate Studies	2019–2020
Division Director of Graduate Admissions	2017–2019
<u>Miscellaneous</u>	
Interviewer, DPET Ph.D. program applicants (Recruitment Weekend)	2016–Present
Interviewer, DPET fellowship program applicants	2016–Present
<b><i>University of North Carolina Lineberger Comprehensive Cancer Center</i></b>	
<u>Standing Committees</u>	
Member, Molecular Tumor Board	2021–Present
Member, Data Safety Monitoring Committee	2017–Present
<b><i>UNC Office of Research Development</i></b>	
<u>Internal Review Committee</u>	
National Cancer Institute F99/K00 applications	2018, 2019
<b><i>University of North Carolina Graduate School</i></b>	
<u>Standing Committees</u>	
UNC Graduate Student Professional Development Advisory Council	2013–2015
UNC Graduate and Professional Student Federation (GPSF) Professional Development Chair	2013–2014
<u>Ad Hoc Committees</u>	
Interviewer, UNC MD-PhD Program Admissions	2022–Present
UNC-Duke-NCSU Career Symposium Steering Committee	2013
UNC Global Entrepreneurship Week Steering Committee	2013
<b><i>Professional Affiliations</i></b>	
<b><i>Alliance for Clinical Trials in Oncology</i></b>	2016–Present
Member	
<u>Standing Committees</u>	
Pharmacogenomics and Population Pharmacology Cadre, 2017–Present	
Genitourinary Malignancies Cadre, 2016–Present	
<b><i>Implementing Genomics in Science (IGNITE)</i></b>	2016–Present
Affiliate Member	
<u>Ad Hoc Committee</u>	
CYP2D6 Research and Implementation Working Group, 2017-2018	
<b><i>Clinical Pharmacogenetics Implementation Consortium (CPIC)</i></b>	2015–Present
Appointed Member	
<u>Ad Hoc Committee</u>	
Tacrolimus Pharmacogenetic Guidelines Updates Writing Group, 2022–Present	
<b><i>North Carolina Oncology Pharmacists Association (NCOP)</i></b>	2012–Present
<b><i>American Society for Clinical Oncology (ASCO)</i></b>	2011–Present
Allied Doctoral Scientist Member, 2016-Present	
Student Member, 2011-2015	
<b><i>American Association for Cancer Research (AACR)</i></b>	2011–Present
Full Member, 2016-Present	
Associate Member (Graduate Student), 2010-2016	
<b><i>Phi Lambda Sigma Leadership Honor Society</i></b>	2008–Present
Member (Alpha Xi Chapter)	
<b><i>Rho Chi Academic Honor Society</i></b>	2008–Present
Member (Alpha Theta Chapter)	
<b><i>American College of Clinical Pharmacy</i></b>	2007-Present

Full Member, 2016-Present

Ad Hoc Committee

Reviewer, ACCP Clinical Research Challenge, 2023

Student Member, 2007-2016

**Hematology Oncology Pharmacists Association (HOPA)**

**2016–2022**

Ad Hoc Committee

HOPA Research Fund Grant Application Reviewer, 2018

**Pharmacogenomics Research Network (PGRN)**

**2016–2020**

Appointed Member

**American Society for Clinical Pharmacology and Therapeutics (ASCPT)**

Member

**2016–2019**

Student Member

**2011–2015**

**American Society of Health-System Pharmacists (ASHP)**

Member

**2010–2016**

Standing Committees

Section of Clinical Specialists and Scientists: Emerging Sciences

Precision Medicine/Pharmacogenetics Advisory Group, 2011–2012, 2013–2015

New Practitioners Forum Science and Research Advisory Group, 2011–2012

Commission on Affiliate Relations (New Practitioner Appointee), 2010–2011

Student Member

**2006–2010**

Standing Committees

Chair, ASHP Pharmacy Student Forum National Executive Committee, 2009–2010

Chair, ASHP Pharmacy Student Forum Student Society, 2009–2010

Chair, Leadership Development Advisory Group, 2009–2010

Vice-Chair, ASHP Pharmacy Student Forum National Executive Committee, 2008–2009

Chair, ASHP Pharmacy Student Forum Policy and Legislative Affairs

Advisory Group, 2008–2009

**Manuscript Referee**

**2011–Present**

Journal of Parenteral and Enteral Nutrition

Annals of Pharmacotherapy

Annals of Oncology

Physiologic Genomics

*Pharmacogenomics Section,*

*Editorial Board Member, 2015 – 2018*

Journal of Veterinary Medical Sciences

Journal of Oncology Pharmacy Practice

British Journal of Pharmacology

Genetics in Medicine

Pharmaceutics

Genes

Genetic Testing and Molecular Biomarkers

Clinical Pharmacology in Drug Development

Cancer Chemotherapy and Pharmacology

Clinical Translational Science

Journal of Pharmacy Practice

Clinical Pharmacology and Therapeutics

Molecular Cancer Therapeutics

Scientific Reports

The Pharmacogenomics Journal

JCO Precision Oncology

Clinical Translational Science

Journal of Personalized Medicine

The Oncologist

International Journal of Molecular Sciences

Frontiers in Oncology

JCO Oncology Practice

Pharmacogenomics

---

**References Available upon Request**

**Last updated:** April 1, 2023