

## CURRICULUM VITAE

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**Education**

B.S.	Dalian University of Technology College of Chemical Engineering Area: chemistry, chemical engineering, and English Advisor: Gaohong He	1991 – 1996
Ph.D.	Arizona State University Department of Chemistry and Biochemistry Area: organic chemistry Advisor: Edward B Skibo	1996 – 2001
Postdoctoral	Harvard University Department of Chemistry and Chemical Biology Area: Chemical Biology Advisor: Andrew G. Myers	2001 – 2003

**Positions/Employment**

Associated Chair, Department of Medicinal Chemistry, University of Florida	2018 – present
Acting Chair, Department of Medicinal Chemistry, University of Florida	09/2022-3/2023
Professor, Department of Medicinal Chemistry, University of Florida	2016 – present
Acting Chair, Department of Medicinal Chemistry, University of Florida	10/22 – 03/23
Frank A. Duckworth Eminent Scholar Chair, University of Florida	2016 – 2021
Professor, Department of Medicinal Chemistry, University of Minnesota	2014 – 2016
Associate professor, Department of Medicinal Chemistry, University of Minnesota	2009 – 2014
Assistant professor, Department of Medicinal Chemistry, University of Minnesota	2003 – 2009
Postdoctoral Associate, Dept of Chemistry and Chemical Biology, Harvard University	2001 – 2003
Graduate Research Assistant, Department of Chemistry, Arizona State University	1998 – 2001
Graduate Teaching Assistant, Department of Chemistry, Arizona State University	1996 – 1998

**Research Interest**

Given the limited success in the clinical management of lung cancer, it is imperative to understand the molecular mechanisms of human lung carcinogenesis. Such knowledge will reveal early-diagnosis and preventive opportunities, which will cultivate patient-friendly strategies to reducing lung cancer incidences, improving lung cancer management, and addressing associated lung cancer disparities. My research interests in human lung carcinogenesis can be broadly classified into three intertwined directions: 1) to characterize different lung cancer etiological risk factors and quantitatively explore their contributions to human lung carcinogenesis; 2) to elucidate the genetic and molecular mechanisms of different risk factors to human lung carcinogenesis and develop mechanism-based non-invasive and clinically translatable biomarkers; and 3) to explore the translational potential of our risk predictive and preventive discoveries via knowledge-based informative clinical evaluations. We have incorporated and integrated a range of research tools from multiple disciplines in our research program to interrogate these directions, including organic chemistry, chemical biology, pharmacology, molecular and cellular biology, bioanalytical chemistry, *in vitro* and *in vivo* models, omics-based bioinformatics and machine learning,

and recently mechanism-driven biomarker-based clinical trials. Our ultimate goal is to be able to enrich or ideally identify individuals with high risk of lung cancer on the basis of our genetic and molecular understanding of human lung carcinogenesis, implement personalized precision preventive strategies, and eventually eliminate lung cancer disparities.

### **Diversity Statement related to mentoring and outreach activities**

I testify the importance of diversity, equity, and inclusion (DEI) in the sciences. I am also committed to promote DEI and eliminate the barriers faced by minorities in engaging in science. I have had the privilege of working alongside a diverse group of smart, creative and hardworking scientists whose identities span a spectrum of cultures, ethnicities, genders, backgrounds, health conditions, and socioeconomic statuses over the course of my undergraduate, graduate, post-doctoral studies and independent career. I have always enjoyed exchanging ideas with my colleagues, and my interactions with them over the years have shaped me and left me with two impressions: first, scientific curiosity, talent, and ideas come from everyone irrespective of their background; and second, the scientific community benefits tremendously from the different perspectives, hypotheses, and ideas that emerge from a diverse group of scientists. Consequently, it is my belief that diversity among scientists is fundamentally healthy and essential for the advancement of science and human wellbeing. This belief carries with it a responsibility to be an active ally and work towards training, hiring, retaining, and promoting scientists who can bring new perspectives to the field because of their backgrounds and identities. In my own lab, I have been actively recruiting, welcoming, funding, training and promoting individuals who come from underrepresented backgrounds, including women, minorities, trainees from economically disadvantaged backgrounds, among others, and fostering an environment of inclusion, where my lab members feel valued, empowered, and encouraged to contribute ideas. I have also been proactive and intentional about understanding each of my trainees' backgrounds and goals and provide them with the mentorship and guidance that they need, to the best of my abilities, to help them achieve their goals. Some of these practices, such as composing a lab mission statement together with my lab members, preparing individual career development plans with my trainees, and designating time during our regular group meetings to discuss DEI topics, are ones which I have incorporated into my own research group. Over the course of my career, I am privileged to have been the primary mentor for 76 trainees, 42 of them being female, 12 of them being Black, 10 of them being Hispanic/Latino, and over 30% of them with economical disadvantages. Such diversity and inclusion were achieved through proactive recruitments and retentions, such as annual recruiting trips specific to minority institutions (such as FAMU), proactively participating in minorities-enriched research outreach opportunities (such as SURF program at UF), and promoting minority research via securing funding (such as Minority Supplement from NIH for minority mentees). In summary, I believe that the future holds great discoveries in store and eagerly look forward to building a program with diverse scientists where we can usher this belief into reality.

### **Membership in Professional Organizations**

UF Chemical Biology Training Grant Trainer	2020 – present
UF Health Cancer Center	2016 – present
UF CNPD3	2016 – present
Society of Toxicology	2013 – present
Minnesota Chemoprevention Consortium (MC <sup>2</sup> )	2011 – 2016
NIH Chemistry-Biology Interface Trainer	2007 – 2016
American Association for Cancer Research	2004 – present
Masonic Cancer Center	2003 – 2016
MIKI medicinal chemistry program	2003 – 2016
American Association of the Colleges of Pharmacy	2003 – present
American Chemical Society	1998 – present

### **Honors and Awards**

Lung Cancer Research Foundation Disparity Award	2020 – 2022
Frank A. Duckworth Eminent Scholar Chair, University of Florida	2016 – 2021
Pharmacy Professional Teaching Award, University of Minnesota	2014 – 2015
Pharmacy Professional Teaching Award, University of Minnesota	2006 – 2007
AACP Young Investigator Award	2005 – 2006
Graduate Fellowship, Arizona State University	1996 – 1997
Mathematics Championship of Dalian University of Technology	1993
National Chemistry Championship of China, Liaoning Region	1990
National Mathematics Championship of China, Liaoning Region	1989

### **Companies co-founded**

Kuality Herbceutics	Co-founder and Manager	2014 – present
Zepto Life Technology	Senior scientific advisor	2012 – 2015

### **Grants and Contracts**

#### **Active**

Role: MPI (contact)  
 Agency: NCCIH – R33AT012328  
 Title: The potential of AB-free kava in enabling tobacco cessation – its holistic effects in managing stress and insomnia associated with abstinence  
 Period: 2023 – 2026  
 Direct cost: \$1,050,000

Role: PI  
 Agency: Florida State Department of Health – James and Esther King Biomedical Research Program  
 Title: Reducing tobacco-associated lung cancer risk and disparities: a randomized clinical trial of AB-free kava  
 Period: 2021 – 2026  
 Direct cost: \$969,114

Role: PI  
 Agency: Florida State Department of Health – Bankhead and Coley Cancer Research Program  
 Title: AB-free kava in lung cancer chemoprevention  
 Period: 2023 – 2025  
 Direct cost: \$255,913

Role: MPI (contact)  
 Agency: NIH – NCCIH/R61/R33AT009988  
 Title: A phased clinical trial of a dietary supplement kava: biomarker changes and anxiolytic effects  
 Period: 2019 – 2026  
 Direct cost: \$1,550,000

Role: subcontract PI  
 Agency: NIH R01ES029496  
 Title: MGMT down-regulation in the carcinogenicity of hexavalent chromium  
 Period: 2020 – 2025  
 Direct cost: \$112,500  
 Role: co-I

Role: PI

Agency: NIH – NCI/R03CA273467

Title: Quantifying NNK metabolites to facilitate Kava lung cancer prevention clinical translation

Period: 2022 – 2024

Direct cost: \$100,000

Role: PI

Agency: CTSI

Title: Kava-based lung cancer precision prevention – UGT genetic variance and NNAL detoxification

Period: 2022 – 2023

Direct cost: \$50,000

### **Pending**

### **Completed**

Role: PI

Agency: Lung Cancer Research Foundation

Title: Contributions of tobacco exposure, NNK, and stress to lung cancer risk disparities between AA and CA male smokers

Period: 2020 – 2022

Direct cost: \$150,000

Role: PI

Agency: NIH – NCI/R01CA193278

Title: Dihydromethysticin (DHM) for lung cancer chemoprevention

Period: 2015 – 2022 (no cost extension)

Direct cost: \$1,143,750

Role: interim MPI

Agency: NIH – NCI/U54CA233444

Title: Florida-California Cancer Research, Education and Engagement (CaRE2) Health Equity Center

Period: 2021 – 2022

Direct cost: \$922,015/year

Full Project: PI

Title: Potential of Kava in Reducing Tobacco Use, Lung Cancer Risk, and Associated Disparities

Period: 2021 – 2023

Direct cost: \$275,000

Status: declined by NCI because our project did not align with NCI's mission priority for CaRE2, which focuses on developing molecular and genetic animal models for cancer disparity.

Role: Principal investigator

Agency: NIH – NCI/R01CA193278 ODS supplement

Title: Dihydromethysticin (DHM) for lung cancer chemoprevention

Period: 2018 – 2020

Direct cost: \$55,687

Role: co-I (PI: Licht)

Agency: Mangurian Foundation

Title: Support for the Study of therapy Resistance

Period: 2017 – 2019  
Direct cost: \$190,000

Role: MPI

Agency: UF Cancer Center

Title: Exploring kava to reduce tobacco use and carcinogenesis risk among head and neck cancer survivor smokers

Period: 2018 – 2020

Direct cost: \$70,000 (declined because of IND challenges)

Role: MPI

Agency: UF SPORE Seed Grant/HERI

Title: Reducing lung cancer risk and advancing health equity by promoting tobacco cessation and enhancing tobacco carcinogen detoxification with dietary supplement kava

Period: 2018 – 2019

Direct cost: \$12,500 total

Role: Principal investigator

Agency: NIH – NCI/R01CA163864

Title: Mechanisms of anticancer agents selective against drug resistant leukemia

Period: 2012 – 2018

Direct cost: \$1, 207,500

Role: PI

Agency: College of Pharmacy UF

Title: Discovering a mechanistically novel anxiolytic agent from kava via in vivo studies

Period: 2017 – 2018

Direct cost: \$30,000

Role: Subcontract Principal Investigator

Agency: NIH – NCCAM/R01AT007395 (PI: Junxuan Lu)

Title: Mechanisms of prostate cancer prevention by Korean Angelica

Period: 2012 – 2015

Direct cost: \$200,000

Role: Principal investigator

Agency: NIH – NCI/R01CA142649

Title: Developing a post-carcinogen lung cancer chemopreventive agent

Period: 2010 – 2015

Direct cost: \$720,000

Role: Principal investigator

Agency: NIH – NCI/R03CA156301

Title: An NF-kB inhibitor as a post-carcinogen lung cancer chemopreventive agent

Period: 2011 – 2013

Direct cost: \$100,000

Role: Principal investigator

Agency: Leukemia Research Fund

Title: Anticancer agents selective against drug resistant AML

Period: 2011 – 2013

Direct cost: \$60,000

Role: Principal investigator

Agency: NIH – NCI/R01CA114294

Title: Bcl-2 selective inhibitors: development and application to cancer treatment

Period: 2006 – 2010

Direct cost: \$560,000

Role: Principal investigator

Agency: Leukemia Research Fund

Title: ER-specific Bcl-2 antagonist for leukemia malignancy

Period: 2008 – 2010

Direct cost: \$60,000

Role: Principal investigator

Agency: NIH – NCI/R03CA125844

Title: Identification of chemopreventive agents against lung tumorigenesis

Period: 2007 – 2008

Direct cost: \$100,000

Role: Principal investigator

Agency: Pancreatic Cancer SPORE Seed Grant, NIH

Title: Identification of chemotherapeutic agents against pancreatic cancer from kava

Period: 2007 – 2008

Direct cost: \$12,500

Role: Principal investigator

Agency: American Association of Colleges of Pharmacy

Title: Studies on Mechanisms of Apoptotic Induction by Inhibitors of Bcl-2 Proteins

Period: 2005 – 2006

Direct cost: \$10,000

Role: co-P.I.

Agency: University of Minnesota

Duration: 2008–2009

Direct cost: \$15,000

Title: Flexstation II 96-well Benchtop Scanning Fluorometer & Integrated Fluid Transfer Workstation

Role: P.I.

Agency: University of Minnesota

Duration: 2004–2005

Direct cost: \$20,961

Title: Developing member-specific Bcl-2 small-molecule modulators.

Role: P.I.

Agency: University of Minnesota

Duration: 2004–2005

Direct cost: \$14,750

Title: GENios Pro Multidetector Microplate Reader

Role: co-P.I.

PI: Joel Slaton

Agency: Academic Health Center University of Minnesota

Type: Translational Grant

Title: Development of a giant magnetoresistive nanosensor for detecting prostate cancer

Duration: 2009-2011

Direct cost my share: \$50,000

Role: P.I.

Agency: Academic Health Center University of Minnesota

Type: Seed Grant

Title: Nutrition-based treatment for Alzheimer's disease

Duration: 2010-2011

Direct cost: \$25,000

Role: P.I.

Agency: Academic Health Center University of Minnesota

Type: Faculty Research Development Grant

Title: Mechanisms of anticancer agents selective against drug resistant leukemia

Duration: 01/01/2012–12/31/2013

Direct cost: \$200,000

Role: P.I.

Agency: Masonic Cancer Center/Seed Grant University of Minnesota

Title: Investigation of kava effects on the metabolism of the tobacco-specific carcinogen 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK) in humans

Duration: 2014–2015

Direct cost: \$25,000

Role: P.I.

Agency: Masonic Cancer Center/MC<sup>2</sup> award Minnesota

Title: A highly potent chemopreventive agent blocking tobacco carcinogen 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK)-induced lung tumorigenesis and mechanisms

Duration: 2014–2015

Direct cost: \$50,000

Role: Co-P.I.

Agency: Masonic Cancer Center Brainstorm University of Minnesota

Title: Developing a indole-3-carbinol analog as a lung cancer chemopreventive agent

Duration: 2011-2012

Direct cost my share: \$12,500

Role: co-P.I.

P.I.: Sang-Hyun Oh

Agency: Institute for Engineering in Medicine University of Minnesota

Type: Seed grant for Medical Device

Title: Nanostructured surface Plasmon resonance (SPR) multiplex detection of cancer biomarkers multiplex detection

Duration: 2010-2011

Direct cost my share: \$17,500

Role: Co-P.I.

P.I.: Levi Downs

Agency: Institute for Engineering in Medicine University of Minnesota

Type: Seed grant for Medical Device

Title: Nanosensor for HPV-induced cervical cancer detection

Duration: 2010-2011

Direct cost my share: \$10,000

Role: P.I.

Agency: Healthy Food Healthy Life Institute University of Minnesota

Title: Kava as a chemopreventive agent against colorectal tumorigenesis

Duration: 2009-2010

Direct cost: \$50,000

Role: P.I.

Agency: Powell Women's Health Center, University of Minnesota

Title: GMR sensor- and high magnetic moment nanoparticle-based detection of HPV infection and cervical pre-cancer biomarkers

Duration: 2009-2010

Direct cost: \$25,000

Role: Co-PI

PI: Junxuan Lu

Agency: Masonic Cancer Center University of Minnesota

Type: Breast Cancer Translational Grant

Title: Pyranocoumarin compounds for breast cancer prevention and treatment

Duration: 2008-2010

Direct cost my share: \$17,500

Role: Co-PI

P.I.: Jian-ping Wang

Agency: The Center for Nanostructured Application, University of Minnesota

Type: Nanostructured Application Grant

Title: Magnetic coloring and screening by nanosystems: integrating nanosensors, nanoparticles and microfluidic devices

Duration: 2007-2009

Direct cost my share: \$116,000

Role: P.I.

Agency: Transdisciplinary Tobacco Use Research Center, University of Minnesota

Title: Developing chemopreventive agents against tobacco-induced lung tumorigenesis from Kava extract

Duration: 2006-2007

Direct cost: \$25,000

Role: P.I.

Agency: University of Minnesota, Cancer Center, Randy Shaver Fund

Title: Peptide/Bcl-2 antagonist therapy for lymphoid malignancy

Duration: 2004-2005

Direct cost: \$25,000



Role: P.I.

Agency: Chemical Biology Initiative RFP University of Minnesota

Title: Method for developing protein-specific modulators

Duration: 2004–2005

Direct cost: \$50,000

Agency: College of Pharmacy University of Minnesota

Title: Effect of DHM on PhIP-induced DNA adducts in the colon and prostate tissues in C57BL/7J mic

Duration: 2014-2015

Direct cost: \$15,000

Role: P.I.

Agency: College of Pharmacy and Department of Medicinal Chemistry University of Minnesota

Title: GAP grant for revised reviewed proposal

Duration: 2012-2013

Direct cost: \$40,000

Role: P.I.

Agency: College of Pharmacy University of Minnesota

Title: A novel DYRK2 inhibitor for anxiety treatment

Duration: 2012-2013

Direct cost: \$25,000

Role: P.I.

Agency: College of Pharmacy University of Minnesota

Title: Novel NF- $\kappa$ B inhibitors for lung cancer treatment

Duration: 2009-2010

Direct cost: \$30,000

## **PUBLICATIONS FROM INDEPENDENT RESEARCH**

\* Denotes corresponding author

- 1 Doshi, J. M.; Tian, D.; Xing, C.\* Structure-activity relationship studies of ethyl 2-amino-6-bromo-4-(1-cyano-2-ethoxy-2-oxoethyl)-4H-chromene-3-carboxylate (HA 14-1), an antagonist for anti-apoptotic Bcl-2 proteins to overcome drug resistance in cancer. *J. Med. Chem.* **2006**, 49, 7731-7739. PMID: 17181155 [PubMed - indexed for MEDLINE].
- 2 Xing, C.\*; Wang, L.; Tang, X.; Sham, Y. Y. Development of selective inhibitors for anti-apoptotic Bcl-2 proteins from BHI-1. *Bioorg. Med. Chem.* **2007**, 15, 2167-2176. PMCID: PMC2001163.
- 3 Doshi, J. M.; Tian, D.; Xing, C.\* Ethyl-2-amino-6-bromo-4-(1-cyano-2-ethoxy-2-oxoethyl)-4H-chromene-3-carboxylate (HA 14-1), a prototype small-molecule antagonist against anti-apoptotic Bcl-2 proteins, decomposes to generate reactive oxygen species (ROS) that induce apoptosis. *Mol. Pharmaceut.* **2007**, 4, 919-928. PMID: 17874842 [PubMed - indexed for MEDLINE].
- 4 Tian, D.; Das, S.; Doshi, J. M.; Peng, J.; Lin, J.; Xing, C.\* sHA 14-1, a stable and ROS-free antagonist against anti-apoptotic Bcl-2 proteins, bypasses drug resistances and synergizes cancer therapies in human leukemia cell. *Cancer Lett.* **2008**, 259, 198-208. PMCID: PMC2693013.
- 5 Wang, L.; Kong, F.; Kokoshi, C. L.; Andrews, D. W.; Xing, C.\* Development of dimeric modulators for anti-apoptotic Bcl-2 proteins. *Bioorg. Med. Chem. Lett.* **2008**, 18, 236-240. PMCID: PMC2266893.

- 6 Wang, L.; Sloper, D. T.; Addo, S. N.; Tian, D.; Slaton, J. W.; Xing, C.\* WL-276, an antagonist against Bcl-2 proteins, overcomes drug resistance and suppresses prostate tumor growth. *Cancer Res.* **2008**, 68, 4377-4383. PMCID: PMC2410026.
- 7 Doshi, J. M.; Xing, C.\* Antagonists against anti-apoptotic Bcl-2 family proteins for cancer treatment. *Mini. Rev. Org. Chem.* **2008**, 5, 171-178. CAN 150:70421.
- 8 Johnson, T. E.; Kassie, F.; O'Sullivan, M. G.; Negia, M.; Hanson, T. E.; Upadhyaya, P.; Ruvolo, P. P.; Hecht, S. S.; Xing, C.\* Chemopreventive Effect of Kava on 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone Plus Benzo[a]pyrene-Induced Lung Tumorigenesis in A/J Mice. *Cancer Prevention Research* **2008**, 1, 430-438. PMID: 19138990 [PubMed - indexed for MEDLINE].
- 9 Xing, C.\*; Johnson, T. E.; Limburg, P. J. Diets, Phytochemicals, and Chemoprevention of Tumorigenesis. *Journal of Dietary Supplements* **2008**, 5, 95-105.
- 10 Gupte, A.; Boshoff, H. I.; Wilson, D. L.; Neres, J.; Labello, N. P.; Somu, R.; Xing, C.; Barry, C. E. III.; Aldrich, C. C. Inhibition of siderophore biosynthesis by 2-triazole substituted analogues of 5'-O-[N-(salicyl)sulfamoyl]adenosine: antibacterial nucleosides effective against *Mycobacterium tuberculosis*. *J. Med. Chem.* **2008**, 51 (23): 7495-7507. PMCID: PMC2750848.
- 11 Srinivasan, B.; Li, Y.; Jing, Y.; Xu, Y.; Xing, C.\*; Wang, J. P.\* A detection system based on giant magnetoresistive sensors and high-moment magnetic nanoparticles demonstrates zeptomole sensitivity: potential for personalized medicine. *Angew. Chem. Int. Ed.* **2009**, 48 (15):2764-2767. PMID: 19288507 [PubMed - indexed for MEDLINE].
- 12 Gálvez-Peralta, M.; Hackbarth, J. S.; Flatten, K. S.; Kaufmann, S. H.; Hiasa, H.; Xing, C.; Ferguson, D. M. On the role of topoisomerase I in mediating the cytotoxicity of 9-aminoacridine-based anticancer agents. *Bioorg. Med. Chem. Lett.* **2009**, 19 (15): 4459-4462. PMCID: PMC2845530.
- 13 Hermanson, D.; Addo, S. N.; Bajer, A.; Marchant, J.; Al-Mousa, F.; Michelangeli, F.; LeBien, T. W.; Xing, C.\* Dual mechanisms of sHA 14-1 on mitochondria and endoplasmic reticulum in inducing apoptosis. *Mol. Pharmacol.* **2009** 76 (3): 667-678. PMCID: PMC2730395.
- 14 Shaik, A. A.; Hermanson, D. L.; Xing, C.\* Identification of methysticin as a potent and non-toxic NF- $\kappa$ B inhibitor from kava, potentially responsible for kava's chemopreventive activity. *Bioorg. Med. Chem. Lett.* **2009** 19 (19) 5732-5736. PMCID: PMC2756981.
- 15 Das, S. G.; Doshi, J. M.; Tian, D.; Addo, S. N.; Srinivasan, B.; Hermanson, D.; Xing, C.\* Structure activity relationships and molecular mechanisms of sHA 14-1 and its analogs. *J. Med. Chem.* **2009**, 52(19) 5937-5949. PMID: 19743858 [PubMed - indexed for MEDLINE].
- 16 Srinivasan, B.; Johnson, T. E.; Lad, R.; Xing, C.\* Structure-activity relationship studies of chalcone leading to 3-hydroxy-4,3',4',5'-tetramethoxychalcone and its analogs as potent NF- $\kappa$ B inhibitors and its anticancer activities. *J. Med. Chem.* **2009** 52(22) 7228-7235. PMID: 19883086 [PubMed - indexed for MEDLINE].
- 17 Xiao, G.; Fang, H.; Xing, C.; Xu, W. Structure, function and inhibition of Bcl-2 family proteins: a new target for anti-tumor agents. *Mini. Rev. Med. Chem.* **2009**, 9(14), 1596-1604. PMID: 20236080 [PubMed - indexed for MEDLINE].
- 18 Zhang, Q.; Srinivasan, B.; Li, Y.; Jing, Y.; Xing, C.; Chang, J.; Wang, J. P. A new and facile method for measurement of apparent density of monodisperse polymer beads. *Talanta* **2010**, 80, 1681-1685. PMID: 20152396 [PubMed - indexed for MEDLINE].
- 19 Synthesis and Cancer Cell Cytotoxicity of Substituted Xanthenes. Giri, R.; Goodell, J. R.; Xing, C.; Benoit, A.; Kaur, H.; Hiasa, H.; Ferguson, D. M. *Bioorg. Med. Chem. Lett.* **2010**, 18(4), 1456-1463. PMID: 20129790 [PubMed - indexed for MEDLINE].

- 20 Li, Y.; Srinivasan, B.; Jing, Y.; Yao, Y.; Hugger, M. A.; Wang, J. P.;\* Xing, C.\* Competition-based nanomagnetic quantification of biomarkers in unprocessed sera for early disease detection. *J. Amer. Chem. Soc.* **2010**, 132(12), 4388-4392. PMID: 20192199 [PubMed - indexed for MEDLINE].
- 21 Chai, Y.; Lee, H. J.; Shaik, A. A.; NKhata, K.; Xing, C.; Zhang, J.; Jeong, S. J.; Kim, S. H.; Lü, J. Penta-O-galloyl-beta-D-glucose induces G1 arrest and DNA replicative S arrest independently of P21Cip1, P27Kip1 and P53 in human breast cancer cells and is orally active against triple negative xenograft growth. *Breast Cancer Research*, **2010**, 12 (R67):1-11. PMID: 20809980 [PubMed - as supplied by publisher].
- 22 Li, L.; Shaik, A. A.; Zhang, J.; Nkhata, K.; Wang, L.; Zhang, Y.; Xing, C.; Kim, S. H.; Lu, J. Preparation of Penta-O-galloyl-<beta>-D-glucose from tannic acid and plasma pharmacokinetic Analyses by Liquid-Liquid Extraction and Reverse-Phase HPLC. *J. Pharmaceut. Biomed.* **2011**, 54: 545-550. PMCID: PMC2981694 [Available on 2012/2/1].
- 23 Srinivasan, B.; Johnson, T. E.; Xing, C.\* Chalcone-based inhibitors against hypoxia-inducible factor 1 – Structure activity relationship studies. *Bioorg. Med. Chem. Lett.*, **2011**, 211: 555-558. PMCID: PMC3010284 [Available on 2012/1/1].
- 24 Johnson, T. E.; Hermanson, L. D.; Wang, L.; Kassie, F.; Upadhyaya, P.; O’Sullivan, M. G.; Hecht, S. S.; Lu, J.; Xing, C.\* Lung tumorigenesis suppressing effects of a commercial kava extract and its selected compounds in A/J mice. *Amer. J. Chin. Med.*, **2011**, 39(4), 727-742. PMID:21721153 [PubMed - indexed for MEDLINE]
- 25 Srinivasan, B.; Li, Y.; Jing, Y.; Xing, C.\*; Slaton, J.\*; Wang, J. P.\* A Three-Layer Competition Based GMR Assay for Direction Quantification of Endoglin from Human Urine. *Anal. Chem.*, **2011**, 83(8), 2996-3002. PMID: 21417448 [PubMed - indexed for MEDLINE]
- 26 Das, S. G.; Srinivasan, B.; Hermanson, D.; Bleeker, N.; Doshi, J. M.; Tang, R.; Beck, W. T.; Xing, C.\* Structure Activity Relationship and Molecular Mechanisms of Ethyl 2-Amino-6-(3,5-Dimethoxyphenyl)-4-(2-Ethoxy-2-Oxoethyl)-4H-Chromene-3-Carboxylate (CXL017) and Its Analogue. *J. Med. Chem.* **2011**, 54(16): 5937-5948. PMID: 21780800 [PubMed - indexed for MEDLINE]
- 27 Zhang, J.; Nkhata, K.; Shaik, A. A.; Wang, L.; Li, L.; Zhang, Y.; Higgins, L.; Kim, K. H.; Liao, J. D.; Xing, C.; Kim, S. H.; Lu, J. Mouse prostate proteome changes induced by oral pentagalloylglucose treatment suggest targets for cancer chemoprevention. *Curr. Cancer Drug Targets*, **2011**, 11(7): 787-798. PMID: 21762084.
- 28 Zhang, Y.; Shaik, A. A.; Xing, B.; Chai, Y.; Li, L.; Zhang, J.; Zhang, W.; Kim, S.-H.; Jiang, C.; Lu, J. A synthetic decursin analog with increased in vivo stability suppresses androgen receptor signaling in vitro and in vivo. *Investigational Cancer Agents*. **2012**, 30(5), 1820-1829. PMID: 21870073.
- 29 Li, L.; Zhang, J.; Shaik, A. A.; Zhang, Y.; Wang, L.; Xing, C.; Kim, S. H.; Lu, J. Quantitative determination of decursin, decusinol angelate, and decursinol in mouse plasma and tumor tissue using liquid-liquid extraction and HPLC. *Planta Med.* **2012**, 78(3), 252-259. PMID: 22116603.
- 30 Shaik, A. A.; Tan, J.; Lu, J.; Xing, C.\* Economically viable efficient synthesis of (±)-Methysticin - A component in kava potential responsible for its cancer chemopreventive activity. *ARKIVOC* **2012**, viii: 137-145.
- 31 Zhang, J.; Li, L.; Jiang, C.; Xing, C.; Kim, S.-H.; Lu, J. Anti-cancer and Other Bioactivities of Korean *Angelica gigas* Nakai (AGN) and Its Major Pyranocoumarin Compounds. *Anti-Cancer Agents in Medicinal Chemistry* **2012**, 12(10): 1239-1254. PMID: 22583405 [PubMed - as supplied by publisher]

- 32 Triolet, J.; Shaik, A. A.; Gallaher, D. D.; O'Sullivan, M. G.; Xing, C.\* Reduction in Colon Cancer Risk by Consumption of Kava or Kava Fractions in Carcinogen-treated Rats. *Nutr. Cancer* **2012**, 64(6): 838-846. PMID: 22693990 [PubMed - in process]
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#### **PUBLICATIONS FROM GRADUATE AND POSTDOCTORAL RESEARCH**

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- 123 Xing, C.; LaPorte, J. R.; Barbay, J. K.; Myers, A. G.\* Identification of GAPDH as a protein target of the saframycin antiproliferative agents. *Proc. Natl. Acad. Sci. U.S.A.* **2004**, 101, 5862-5866. PMID: PMC395888.

#### **Invited Presentations at Professional Meetings, Conferences, etc.**

1. **Xing, C.** and Skibo, E. B. Sigmatropic reactions of the aziridinyl semiquinone species: Why aziridinyl benzoquinones are metabolically more stable than aziridinyl indoloquinones. American Chemical Society National Meeting, 220<sup>th</sup>, Washington DC, **2000**.
2. **Xing, C.** Identification of GAPDH as a Protein Target of the Saframycin Class of Natural Antiproliferative Agents, Hormel Research Institute, Austin, MN, **2004**.
3. **Xing, C.** Efforts toward developing Bcl-2 member-selective modulators, University of Minnesota, Department of Chemistry, Chemical Biology Program, Minneapolis, MN, **2004**.
4. **Xing, C.** SARs of HA 14-1: binding interaction with Bcl-2 proteins, cytotoxicity, synergistic effect, and stability, University of Minnesota Cancer Center Chemoprevention Program, Minneapolis, MN, **2005**.
5. **Xing, C.** Development of selective antagonist for anti-apoptotic Bcl-2 proteins. Engebretson Symposium on Drug Discovery and Development in Cancer Experimental Therapeutics, Minneapolis, MN, **2005**.

6. **Xing, C.** and Johnson, T. Kava as a chemopreventive agent, Complimentary and Integrative Medicine Seminar, Mayo Clinic, Rochester, MN, **2006**.
7. **Xing, C.** and Wang, L. Bcl-2 antagonists for prostate cancer treatment. Prostate Cancer Research Seminar, University of Minnesota, MN **2006**.
8. Wang, L., Tang, X., and **Xing, C.** Efforts toward developing Bcl-2 member-selective modulators through solid-phase approach, International Symposium on Chemical Biology and Combinatorial Chemistry, Jinan, China, **2006**.
9. **Xing, C.**; Tian, D.; Addo, S. N.; Doshi, J. M. Why can HA 14-1, an antagonist against Bcl-2, synergize a variety of standard chemotherapies? AACR-ACS Joint Conference Chemistry in Cancer Research: A Vital Partnership, San Diego, CA, **2007**.
10. Johnson, T. E., **Xing, C.** Kava – is it a source of chemopreventive/chemotherapeutic agents against pancreatic cancer? PanCAN symposium, Pancreatic SPORE Program, University of Minnesota, MN **2007**.
11. **Xing, C.**, Doshi, J., Tian, D., Addo, S., and Das, S. sHA 14-1 selectively targets drug-resistant cancer cells in human leukemia cells through the induction of ER  $\text{Ca}^{2+}$  release, Hormel Research Institute, Austin, MN **2007**.
12. **Xing, C.**, Johnson, T. E., Kassie, F., and Hecht, S. S. Can kava be a chemopreventive agent? Engebretson Symposium on Drug Discovery and Development in Cancer Experimental Therapeutics, Minneapolis, MN, **2007**.
13. **Xing, C.** Studies of small-molecule antagonists against anti-apoptotic Bcl-2 proteins, synthesis, mechanism of action, and anticancer activity. St. Cloud State University, MN, **2007**.
14. **Xing, C.** Studies of HA 14-1, can we selectively target ER-specific Bcl-2 proteins? Center for Drug Design, University of Minnesota, MN, **2007**.
15. **Xing, C.** Identification of chemopreventive agents against lung tumorigenesis. Minnesota Chemoprevention Consortium, Waseca, MN, **2008**.
16. **Xing, C.** Development of Bcl-2 antagonists toward drug-resistant cancers. Department of Biochemistry & Molecular Biology, The University of Oklahoma, Oklahoma City, OK, **2008**.
17. **Xing, C.** Bcl-2 proteins, calcium regulation, and apoptosis – a view from sHA 14-1, a small-molecule antagonist. Department of Chemistry, National University of Singapore, Singapore, **2008**.
18. **Xing, C.** Developing chemopreventive agents from natural sources – studies of kava. Department of Chemistry, Nanyang Technological University, Singapore, **2008**.
19. **Xing, C.** Studies of kava and chalcone-based flavokawains as potential chemopreventive agents, Department of Medicinal Chemistry, Shandong University, Jinan, China, **2008**.
20. **Xing, C.** Studies of sHA 14-1, a stable and ROS-free Bcl-2 antagonist, for its regulation of calcium and apoptosis. Department of Chemistry, Vanderbilt University, Nashville, TN, **2008**.
21. **Xing, C.** Kava as a chemopreventive agent against lung cancer. International Lung Cancer Conference, Liverpool, England, **2008**.
22. **Xing, C.** Johnson, T. E. Developing kava and flavokawains as chemopreventive agents, Ferulate'08 – an international conference on hydroxycinnamates and related plant phenolics, St. Paul, MN **2008**.
23. **Xing, C.** Studies of kava and chalcone-based flavokawains as potential chemopreventive agents, Department of Medicinal Chemistry, University of North Carolina, Chapel Hill, NC **2008**.

24. **Xing, C.** Dual mechanism of sHA 14-1 in eliminating cancer cells. Department of Chemistry and Biochemistry, University of Minnesota Duluth, Duluth, MN **2008**.
25. **Wang, J.,** Xing, C. Biomarkers identification and detection based on GMR sensor and sub 13 nm magnetic nanoparticles, 31<sup>st</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Minneapolis, MN **2009**, #2266.
26. **Srinivasan, B.;** Li, Y.; Jing, Y.; Xu, Y.; Wang, J. P.,\* Xing, C.\* A GMR sensor- and magnetic nanoparticle-based detecting system of zeptomol sensitivity: An integrated platform potentially leading to personalized medicine. ACS 238<sup>th</sup> National Meeting, Washington DC, **2009**, MEDI-124.
27. **Xing, C.** Interdisciplinary research in disease early detection, prevention, and treatment - cancer as a model system. Powell Woman Institute – BIRWCH seminar. University of Minnesota, Minneapolis, MN Feb. 10, **2010**.
28. **Xing, C.** Preventing tobacco carcinogen-induced lung tumorigenesis in A/J Mice by kava, its safety, potential mechanisms of action, and active constituents. Masonic Cancer Center Cancer Prevention & Control Seminar. University of Minnesota, MN Oct. **2010**.
29. **Xing, C.** An anticancer candidate selective against drug resistant leukemia. Masonic Cancer Center. Leukemia Research Seminar. University of Minnesota, MN Nov. **2010**.
30. **Xing, C.** An anticancer candidate selective against drug resistant leukemia and its mechanism of action. Masonic Cancer Center Research Symposium. University of Minnesota, MN May. **2011**.
31. **Xing, C.** Selectively targeting drug resistant cancer cells. Shandong University, Dept. of Medicinal Chemistry, Jinan, July, **2011**.
32. **Das, S.;** Xing, C. Synthesis of anticancer agents that selectively target drug resistant cancer, ACS national meeting – Spring 2011, March, **2011**.
33. **Xing, C.** CXL candidates targeting unique pathways to prevent/overcome drug resistance in cancer therapy. Dalian Medical University, Dalian, August, **2012**.
34. **Xing, C.** The therapeutic potential of kava, its active constituents and mechanism of action. Lovelace Respiratory Research Institute, Albuquerque NM Sept. 21<sup>st</sup> **2012**.
35. **Xing, C.** An Anticancer Drug Candidate against Drug Resistance in Leukemia and its Mechanisms of Action. Western Canadian Medicinal Chemistry Workshop, Saskatoon, SK S7N 5C9, Sept.29<sup>th</sup> **2012**.
36. **Xing, C.** Anticancer agents selectively targeting drug resistant malignancies and mechanisms of action, Lovelace Research Institute, New Mexico, NM **2013**.
37. **Xing, C.** Anticancer agents selectively targeting drug resistant malignancies and mechanisms of action, ACS national meeting – Spring 2013, New Orleans, LA **2013**.
38. **Xing, C.** Kava - its resurgence, quality control, anxiolytic activity, and hepatotoxic risk, a natural medicine with future promise and challenges, 12<sup>th</sup> Annual Oxford International Conference on the Science of Botanicals. April 2014, Oxford, MI **2013**.
39. **Xing, C.** Interdisciplinary research in cancer treatment, prevention, and early detection. University of California San Diego Department of Medicinal Chemistry, July 1, **2013**.
40. **Zhang, J.** Xing, C., and Lu, J. Subchronic Toxicological Evaluation of Ethanol Extract of Korean Medicinal Herb Angelica Gigas Nakai and its Pyranocoumarin Tissue Distribution in Mice. The 2013 AAPS Annual Meeting, Nov. 2013, San Antonio, TX **2013**.

41. **Xing, C.** Medicinal chemistry effort in cancer treatment, prevention, and early detection. University of Minnesota Masonic Cancer Center, Minneapolis, MN, Feb. 4, **2014**.
42. **Xing, C.** U of M research finds kava plant may prevent cigarette smoke-induced lung cancer. University of Minnesota Research Animal Resources, Minneapolis, MN, Feb. 7, **2014**.
43. **Xing, C.** Interdisciplinary research to address challenges on kava – its beneficial effects and potential adverse effects. International Conference on Applied Chemistry, March 5-7, 2014, Fiji **2014**.
44. **Xing, C.** Medicinal chemistry effort in cancer treatment, prevention, and early detection. International Conference on Applied Chemistry, March 10, 2014, Division of Natural Sciences and Mathematics, Chaminade University of Honolulu **2014**.
45. **Xing, C.** Kava as a lung cancer chemopreventive agent and its hepatotoxic risk. Hawaii kava/ava Association seminar, March 11<sup>th</sup>, Hilo Hawaii **2014**.
46. **Xing, C.** I Medicinal chemistry effort in cancer treatment, prevention, and early detection. International Conference on Applied Chemistry, March 11, College of Pharmacy University of Hawaii **2014**.
47. **Xing, C.** Systematic analyses of kava's hepatotoxic risk – what do we know and what we do not know. The 2014 Society of Toxicology National Meeting, March 23-27, 2014, Phoenix, AZ **2014**.
48. **Xing, C.** What do we know about kava as a dietary supplement – its potential benefit and risks. 13<sup>th</sup> Annual Oxford International Conference on the Science of Botanicals. April 16-18, Oxford, MI **2014**.
49. **Xing, C.** An anticancer candidate targeting drug resistance in leukemia and its mechanism of actions, June 4<sup>th</sup>, The Second Military University, Shanghai, China **2014**.
50. **Xing, C.** Chalcone-based compounds - their potential as probes and drug lead templates, June 5<sup>th</sup>, Northeastern Institute of Technology, Shanghai, China **2014**.
51. **Xing, C.** Medicinal chemistry effort in cancer treatment, prevention, and early detection. June 15<sup>th</sup>, Dalian University of Technology, Panjin, China **2014**.
52. **Xing, C.** Dihyromethysticin (DHM) potently blocks tobacco carcinogen 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK)-induced lung tumorigenesis and differentially reduces DNA damage in A/J mice. Structural biology and biochemistry program seminar. University of Colorado Anschutz Medical Campus, Nov. 12<sup>th</sup>, Denver, CO **2014**.
53. **Xing, C.** Progress of kava lung cancer chemoprevention, MC2 meeting, April 15<sup>th</sup>, Rochester, MN **2015**.
54. **Xing, C.** An Anticancer Candidate Selectively Targeting Multidrug-resistant Leukemia and Mechanistic Investigation. University of Arkansas for Medical Sciences, June 15<sup>th</sup>, Little Rock, AR **2015**.
55. **Xing, C.** Kava's cancer preventive potential and hepatotoxic risk – what do we know and what shall we do? July 27, Hawaii Kava Symposium, Honolulu, HA **2015**.
56. **Xing, C.** Interdisciplinary research in cancer treatment, prevention and early detection. Jan. 11, Department of Pharmaceutical Science, Washington State University, Spokane, WA **2016**.
57. **Xing, C.** Medicinal chemistry in cancer treatment, prevention and early detection. Jan. 14, Department of Medicinal Chemistry, University of Florida, Gainesville, FL **2016**.
58. **Xing, C.** Cancer prevention – opportunities and challenges and a case study. University of Minnesota Medical School, Minneapolis, MN **2016**.

59. **Xing, C.** Cancer prevention – opportunities and challenges and a case study. Chinese 2<sup>nd</sup> Military University, Shanghai, China, **2016**.
60. **Xing, C.** Medicinal chemistry in cancer treatment, prevention, and early detection. Dalian University of Technology, Dalian, China, **2016**.
61. **Xing, C.** Medicinal chemistry in cancer treatment, prevention and early detection. Sept. 3, The 7th Symposium of Science, Engineering & Biomedicine, Jacksonville, FL, **2016**.
62. **Xing, C.** Kava – what do we know and what shall we do? Department of Epidemiology, University of Florida, Gainesville, FL, **2016**.
63. **Xing, C.** Medicinal chemistry in cancer treatment, prevention, early detection and related biology, Department of Chemistry, University of Florida, Gainesville, FL, **2017**.
64. **Xing, C.** Developing novel agents to treat drug resistant malignancies 016 FACCA Research Retreat, Orlando, FL, **2017**.
65. **Xing, C.** Kava and cancer prevention. Chemistry Club, University of Florida, Gainesville, FL, **2017**.
66. **Xing, C.** Dihydromethysticin (DHM) and flavokawains, separating kava's lung cancer chemopreventive activity and hepatotoxic risk and the *in vivo* SAR of DHM. College of Pharmacy, Ningxia Medical University, Ninxia, P.R. China, **2017**.
67. **Xing, C.** A journey from the literature, to the bench, to the clinic and...UF Drug Discovery CNPD3 symposium, Gainesville, FL, **2017**.
68. **Xing, C.** A dietary supplement kava to reduce tobacco use, reduce carcinogenesis risk, and improve the quality of life among head and neck cancer survivor smokers. Tobacco control group tobacco pilot presentation, Gainesville, FL, **2018**.
69. **Xing, C.** Targeting MDR malignancies and exploring cancer prevention, UF Cancer Center, Gainesville, FL **2018**.
70. **Xing, C.** Rejuvenating an old folk medicine – kava. The 8th Symposium of Science, Engineering & Biomedicine & The 4th Symposium of Humanities and Social Science, Stillwater, FL **2018**.
71. **Xing, C.** A journey from the literature to the bench and to the clinic – kava. Departmental Seminar for Physiological Sciences, University of Florida, Gainesville, FL. **02/26/2019**.
72. **Xing, C.** The potential of kava, an old folk medicine, in mitigating tobacco use, associated lung carcinogenesis risk and ? The 21st Annual International Meakins-Christie Laboratories Workshop. McGill University, Montreal, Canada. **03/25/2019**.
73. **Xing, C.** The contributions of tobacco use, E-cigarette, and stress to lung cancer – a kava story, UF Cancer Center, Gainesville, FL **11/15/2019**.
74. **Xing, C.** Supplying data for investigator held IND Kava Trial. Dietary Supplements Clinical Research Roundtable, NCCIH, Zoom, **08/03/2020**.
75. **Xing, C.** Cancer prevention in Elderly and Particularities for Mechanisms of Action. Age-Dependent Changes in Cancer Biology, Cosponsored by NCI, NIA and NIEHS, Zoom, **10/26/2020**.
76. **Xing, C.** Kava in tobacco research: opportunities and challenges. CPS retreat sponsored by Cancer Center, Zoom, **12/14/2020**.
77. **Xing, C.** Reducing tobacco-associated lung cancer risk: A randomized clinical trial of AB-free kava, UF Cancer Center Tobacco Working Group, UF, Zoom, **03/31/2021**.

78. **Hu, Q.;** Xing, C. Kava, dihydromethysticin and NNK-induced lung cancer: from lab animals to humans. COP 34th Research Showcase, **2021**, April. 12 - 13, Gainesville, FL.
79. **Xing, C.** My Kava Journey – from the Literature to the Bench, to my Own Life, to the Bed, and Backforth, Center for OCD, Anxiety, & Related Disorders (COARD), **2021**, Oct. 29, Gainesville, FL.
80. **Xing, C.** The potential of kava in lung cancer prevention, Department of Pharmacology, Penn State University, **2022**, Jan. 20, Hersey, PI.
81. **Xing, C.** Special Panel UF Health Cancer Center Tobacco Control Working Group, **2022**, Jan. 25, Gainesville, FL.
82. **Xing, C.** Lung cancer risk prediction and prevention – challenges and opportunities, Lung Cancer Mini-Retreat, **2022**, April 8, Gainesville, FL.
83. **Xing, C.** Factors contributing to disparities associated with lung cancer and potential mitigating strategies. National Cancer Institute Laboratories of Human Carcinogenesis, **2023**, March 20, Virtual.
84. Mamallapalli, J.; Freeman, B.; **Xing, C.** Antagonism of the  $\beta$ 2-adrenergic receptor as a potential anti-stress mechanism of kava and its kavalactones characterized via a cell-based cAMP assay, ACS Spring 2023 Crossroads of Chemistry, 2023, March 27-30, Indianapolis, IN (SCI-MIX poster session and accepted oral presentation).
85. **Xing, C.** Opportunities and challenges of kava in lung cancer prevention. 7<sup>th</sup> International Conference on Drug discovery and lead optimization. 2023, Nov. 1-3, San Francisco, CA.

#### Posters or Exhibitions

1. Doshi, J. M.; **Xing, C.** Developing small molecules to overcome drug resistance induced by Bcl-XL. University of Minnesota NIH Training Grant Symposium, Minneapolis, MN, **2005**.
2. Wang, L.; Tang, X.; **Xing, C.** Effort toward developing Bcl-2 member-selective modulators through solid-phase based approach. University of Minnesota NIH Training Grant Symposium, Minneapolis, MN, **2005**.
3. Doshi, J. M.; **Xing, C.** Developing small molecules to overcome drug resistance induced by Bcl-XL. Engebretson Symposium on Drug Discovery and Development in Cancer Experimental Therapeutics, Minneapolis, MN, **2005**.
4. Wang, L.; Tang, X.; **Xing, C.** Effort toward developing Bcl-2 member-selective modulators through solid-phase based approach. Engebretson Symposium on Drug Discovery and Development in Cancer Experimental Therapeutics, Minneapolis, MN, **2005**.
5. **Xing, C.;** Tian, D.; Doshi, J. Apoptotic pathway induced by HA 14-1, a small-molecule antagonist for Bcl-2 protein, 232<sup>nd</sup> ACS National Meeting, San Francisco, CA, **2006**, MEDI-095.
6. Tian, D.; Doshi, J. M.; Addo, S. N.; **Xing, C.** HA 14-1 induced apoptosis in Jurkat cells – the potential mechanism for its synergism to a variety of chemotherapies, International Symposium on Chemical Biology and Combinatorial Chemistry, Jinan, China, **2006**, #41.
7. **Xing, C.;** Doshi, J. M. Identification of a novel small molecule antagonist of anti-apoptotic Bcl-2 proteins: Bcl-2 protein binding, *in vitro* cytotoxicity, and synergism, 233<sup>rd</sup> ACS National Meeting, Chicago, IL, **2007**, MEDI-094.
8. **Xing, C.;** Doshi, J. M. Studies on the stability of HA 14-1, a small molecule antagonist for anti-apoptotic Bcl-2 protein. 233<sup>rd</sup> ACS National Meeting, Chicago, IL, **2007**, MEDI-449.

9. Tian, D.; Addo, S. N.; Doshi, J. M.; **Xing, C.** Apoptotic pathways induced by HA 14-1, an antagonist of Bcl-2 protein, in Jurkat cells. AACR-ACS Joint Conference Chemistry in Cancer Research: A Vital Partnership, San Diego, CA, **2007**.
10. Doshi, J. M.; **Xing, C.** Studies on the stability of HA 14-1 – a small molecule antagonist for anti-apoptotic Bcl-2 protein, AACR Annual Meeting, Los Angeles, CA, **2007**, #3976.
11. Beishir, S.; **Xing, C.**; Kuriyama, R. Are anti-apoptotic Bcl-2 family proteins involved in cell division? The American Society For Cell Biology 47<sup>th</sup> Annual Meeting, Washington, DC, **2007**.
12. Johnson, J. E.; Kassie, F.; Upadhyaya, P.; Hecht, S. S.; **Xing, C.** Chemopreventive effect of kava on 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone plus Benzo(a)pyrene-induced lung tumorigenesis in A/J mouse. 6<sup>th</sup> Annual AACR International Conference Frontiers in Cancer Prevention Research, Philadelphia, PA, **2007**, B141.
13. **Xing, C.**; Johnson, J. E.; Kassie, F.; Upadhyaya, P.; Hecht, S. S. Chemoprevention of kava and its potential active components against lung tumorigenesis in A/J mouse induced by 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone and Benzo(a)pyrene. Cancer Prevention 2008 – 5<sup>th</sup> International Conference, St. Gallen, Switzerland, **2008**, #39.
14. **Xing, C.**; Wang, L.; Sloper, D.; Addo, S. N.; Tian, D.; Slaton, J. WL-276, an antagonist against anti-apoptotic Bcl-2 proteins, overcome drug resistance and suppresses prostate tumor growth. AACR national meeting 2008, San Diego, CA, **2008**, #3200.
15. **Xing, C.**; Addo, N. S.; Doshi, J. M. sHA 14-1 selectively targets drug-resistant human leukemia cancer cells through the induction of ER Ca<sup>2+</sup> release, independent of mitochondria-mediated apoptotic pathway. AACR national meeting 2008, San Diego, CA, **2008**, #4751.
16. Li, Y.; Srinivasan, B.; Jing, Y.; Yao, X.; Xu, Y.; Zhang, Q.; **Xing, C.**; Wang, J. P. Magnetic biosensor for screening small molecular ligands against protein target. Scientific and Clinical Applications of Magnetic Carriers – 7<sup>th</sup> International Conference, Vancouver, Canada, **2008**, #224.
17. Johnson, T. E.; Hugger, M.; **Xing, C.** Synthesis and evaluation of chalcones, privileged chemopreventive structures. ACS 236<sup>th</sup> National Meeting, Philadelphia, PA, **2008**, MEDI-123.
18. Johnson, T. E.; Kassie, F.; Upadhyaya, P.; Hecht, S.; **Xing, C.** Flavokawains A and B: chemopreventive constituents of kava against lung tumorigenesis. ACS 236<sup>th</sup> National Meeting, Philadelphia, PA, **2008**, MEDI-124.
19. Li, Y.; Jing, Y.; Yao, X.; Srinivasan, B.; Xing, C.; Wang, J. Biomarkers identification and detection based on GMR sensor and sub 13 nm magnetic nanoparticles. The 31<sup>st</sup> Annual International IEEE EMBS Conference of the IEEE Engineering in Medicine and Biology Society, Minneapolis, MN, **2009**, #2266.
20. Xing, C. Kava as a lung cancer chemopreventive agent. 8<sup>th</sup> annual AACR International Conference – Frontiers in Cancer Prevention Research 2009, Houston TX, **2009**, #294.
21. Zhang, J.; Shaik, A.; Nhkata, K.; Wang, L.; Kim, K. H.; Liao, J. D.; Xing, C.; Kim, S. H.; Lü, J. Proteome changes in mouse prostate induced by oral administration of penta-O-galloyl-beta-D-glucose suggest targets for cancer chemoprevention. AACR national meeting 2010, Washington, DC, **2010**.
22. Li, L.; Zhang, J.; Shaik, A.; Nhkata, K.; Xing, C.; Lu, J. Pharmacokinetics studies of anti-cancer gallotannin penta-O-galloyl-beta-D-glucose (PGG) in mice. AACR national meeting 2010, Washington, DC, **2010**.
23. Chai, Y.; Lee, H. J.; Shaik, A.; Nhkata, K.; Xing, C.; Kim, S. H.; Lu, J. Penta-O-galloyl-beta-D-glucose induces DNA replicative S arrest and G<sub>1</sub> arrest independent of p21Cip1, p27Kip1 and p53



- in human breast cancer cells and is orally active against breast cancer xenograft. AACR national meeting 2010, Washington, DC, **2010**.
24. Xing, C.; Gallaher, D.; O'Sullivan M. G. Does Kava Reduce Colon Cancer Risk? Healthy Food Healthy Life Symposium – 2010, Saint Paul, MN, **2010**.
  25. Das, S.; Hermanson, D.; Xing, C. Selectively targeting drug resistant cancer cells. Gordon Conference, **2011**.
  26. Das, S.; Hermanson, D.; Xing, C. CXL017 re-sensitizes multidrug resistant leukemia cells to chemotherapy via modulating Bcl-2 family proteins and SERCA proteins, AACR Annual Meeting, **2012**, Chicago, IL, #767.
  27. He, W.; Wang, Q.; Srinivasan, B.; Xu, X.; Chen, W.; Padilla, M.; Gou, X.; Xing, C.; Lin, Y. Autophagy-associated necroptosis contributes to cancer cell cytotoxicity induced by the chalcone compound SBC2. AACR Annual Meeting, **2012**, Chicago, IL, #2277.
  28. Li, L.; Zhang, J.; Xing, C.; Jiang, C.; Kim, S-H.; Zhang, R.; Lu, J. in vitro metabolism studies of herbal compound decursin and decursinol angelate in rodent and human liver microsomes. ASMS **2012**, #1375.
  29. Wattenberg, E. V.; Warmka, J. K.; Srinivasan, B.; Xing, C. A kava chalcone analogue inhibits A549 lung cancer cell proliferation through a pathway modulated by mitogen activated protein kinases. The 51<sup>st</sup> SOT Annual Meeting, **2012**, #2850.
  30. Xing, C., Hermanson, D.; Aridoss, G.; Das, S. Mechanisms of multidrug resistance in AMLs and selective targeting via small molecules. AACR Molecularly Targeted Therapies – Mechanisms of Drug Resistance Meeting, **2012**, San Diego, B39.
  31. Aridoss, G.; Zhou, B.; Hermanson, D. L.; Bleeker, N. P.; Xing, C. Ethyl 2-Amino-6-(3,5-Dimethoxyphenyl)-4-(2-Ethoxy-2-Oxoethyl)-4*H*-Chromene-3-Carboxylate (CXL017) Structure-Activity Relationship and its Potential to Target Multi-drug Resistance in Cancer Treatment, **2012**, St. Paul, 5<sup>th</sup> CBI symposium.
  32. Bleeker, N. P.; Miller, T.; Hermanson, D. L.; Das, S. G.; Thomas, D. D.; Xing, C. Small molecule inhibitors of the sarco/endoplasmic reticulum Ca<sup>2+</sup>-ATPase as novel leads in the treatment of drug resistant leukemia, **2012**, St. Paul, 5<sup>th</sup> CBI symposium.
  33. Xing, C., Hermanson, D.; Aridoss, G.; Das, S. Mechanisms of multidrug resistance in AMLs and selective targeting via small molecules. 2<sup>nd</sup> Masonic Cancer Center Symposium, 2012, Minneapolis.
  34. Linda B. von Weymarn, Pablo Leitzman, Xingxin Yu, Chengguo Xing, Sharon E. Murphy. Kavalactones, inhibitors of NNK tumorigenesis and coumarin metabolism in A/J mice. The 18th International Conference on Cytochrome P450 Biochemistry, Biophysics and Structure June 18-22, **2013**, Seattle, Washington USA.
  35. Zhang, W.; Xing, C.; Arndt, P. Kava-derived compounds suppress the acute inflammatory response in human neutrophils. B39. **2013**, Pennsylvania, USA
  36. Zhang, J.; Li, L.; Hale, T. W.; Chee, W.; Xing, C.; Jiang, C.; Lu, J. Single oral dose pharmacokinetics of cancer chemopreventive pyranocoumarins from *Angelica gigas* Nakai in men and women. The 105<sup>th</sup> AACR national meeting, **2014**, April 5 – 9. San Diego, CA.
  37. Tang, S. N.; Datta, P.; Leitzman, P.; Xing, C.; Srivastava, S.; Jiang, C.; Lu, J. Suppressing effect of a kava fraction on two lineages of prostate carcinogenesis in the transgenic adenocarcinoma of mouse prostate model. The 105<sup>th</sup> AACR national meeting, **2014**, April 5 – 9. San Diego, CA.

38. Wu, W.; Puppala, M.; Tang, S.; Zhang, J.; Xing, C.; Jiang, C.; Lu, J. Equi-molarity vs. pharmacokinetics-guided dosing in anti-cancer efficacy assessment of precursor-product pairs: Example with pyranocoumarins from Korean Angelica. The 106<sup>th</sup> AACR national meeting, **2015**, April 18 – 22. Philadelphia, PA
39. Xing, C.; Wang, Y.; Narayanapillai, S.; Naomi, F. Potential of Kava in Reducing Lung Cancer Risk, Tobacco Use, and Associated Disparities. The 110th AACR national meeting, **2019**, March 29 – April 3. Atlantic
40. Botello J.F.; Xing, C. Stress hormones abrogate cGAS-STING-mediated immunogenicity. COP 33<sup>rd</sup> Research Showcase, **2020**, Feb. 12, Gainesville, FL.
41. Xu, M.; Mamallapalli, J.; Jones, N.; Xing, C. TNE levels of lung cancer patients versus healthy individuals and its change with smoking relapse. COP 33<sup>rd</sup> Research Showcase, **2020**, Feb. 12, Gainesville, FL.
42. Bian, T.; Wang, Y. Botello, J.F.; Xing, C. A major in vivo tobacco-specific carcinogen metabolite promotes lung cancer progression by deactivating LKB1 in an isomer-dependent manner. COP 33<sup>rd</sup> Research Showcase, **2020**, Feb. 12, Gainesville, FL.
43. Wang, Y.; Bian, T.; Xing, C. Nicotine and cotinine promote lung cancer cell drug resistance to cisplatin by inhibiting apoptosis and reducing DNA damage. COP 33<sup>rd</sup> Research Showcase, **2020**, Feb. 12, Gainesville, FL.
44. Hu, Q.; Corral, P.; Xing, C. Chemoprevention of DHM administered via oral gavage against NNK-induced lung tumorigenesis. COP 33<sup>rd</sup> Research Showcase, **2020**, Feb. 12, Gainesville, FL.
45. Corral, P.; Botello, J.; Xing, C. Design, Synthesis, and Characterization of Quinazoline-Based CYP1A2 Inhibitors as Potential Cancer Chemopreventive Agents. COP 33<sup>rd</sup> Research Showcase, **2020**, Feb. 12, Gainesville, FL.
46. Xing, C. The potential of dietary supplementation of kava as an integrative medicine for lung cancer prevention. Trans NCI-NIH Conference on International Perspectives on Integrative Medicine for Cancer Prevention and Cancer Patient Management, **2020**, Oct. 27, NCI via zoom.
47. Wang, Y.; Xing, C. Nicotine exposure induces resistance to chemotherapy in small cell lung cancer. COP 34<sup>th</sup> Research Showcase, **2021**, April. 12 - 13, Gainesville, FL.
48. Mamallapalli, J.; Xing, C. Kava inhibits norepinephrine-induced cAMP production in lung cancer cells. COP 34<sup>th</sup> Research Showcase, **2021**, April. 12 - 13, Gainesville, FL.
49. Bian, T.; Xing, C. NNAL promotes lung cancer progression in an isomer-dependent manner. COP 34<sup>th</sup> Research Showcase, **2021**, April. 12 - 13, Gainesville, FL.
50. Mamallapalli, J.; Xing, C. Kava inhibits norepinephrine-induced cAMP production in lung cancer cells. 4<sup>th</sup> UF Drug Discovery Symposium, **2021**, April. 22 - 23, Gainesville, FL.
51. Qi Hu, Haocheng Ding, Naomi Fujioka, Ramzi Salloum, Zhiguang Huo and Chengguo Xing One-week Dietary Supplementation with Kava enhanced NNK detoxification via transcriptional activation of UGTs. COP 35<sup>th</sup> Research Showcase, **2022**, Feb. 7 - 8, Gainesville, FL.
52. B. Freeman, C. Xing The utilization of the Double Reformatsky Addition for Kavalactone Synthesis COP 35<sup>th</sup> Research Showcase, **2022**, Feb. 7 - 8, Gainesville, FL.
53. Tengfei Bian, Haocheng Ding, Yuzhi Wang, Qi Hu, Jin Koh, Sixue Chen, Naomi Fujioka, F. Zahra Aly, Zhiguang Huo, Junxuan Lu, and Chengguo Xing Suppressing the protein kinase A pathway as a DNA-damage independent mechanistic lead for dihydromethysticin (DHM) in preventing NNK-induced lung carcinogenesis COP 35<sup>th</sup> Research Showcase, **2022**, Feb. 7 - 8, Gainesville, FL.

54. J. Mamallapalli; J. Botello; Y. Wang; T. Bian; Y. Wang; C. Xing Kava's potential dual role in stress reduction and lung cancer management COP 35th Research Showcase, **2022**, Feb. 7 - 8, Gainesville, FL.
55. Gobin, C.; Inkabi, S.; Lattimore, C.C.; Menefee, J.N.; Bian, T.; Fields, C.; Xie, M.; Xing, C.; Fredenburg, K.M. Low miR-9 impacts tumorigenesis and chemoresistance in Black compared with White laryngeal squamous cell carcinoma, 15<sup>th</sup> AACR Conference on The Science of Cancer Health Disparities, **2022**, Sept. 16-19, Philadelphia, PA.
56. Bian, T.; Jin, L.; Xing, C. Chronic NNAL exposure, mimicking tobacco use in humans, deactivates LKB1 and promotes tumor progression in non-small cell lung cancer, AACR Annual Meeting 2023, **2023**, April 14 – 19, Orlando, FL.
57. Ramirez-Alcantara, V.; Chen, X.; Schuler, M.A.; Otali, D.; Grizzle, W.; Berry, K.; Ward, A.; Nurmemmedov, E.; Zhou, G.; Xing, C.; Gorman, G.; Coward, L.; Maxuitenko, Y.; Keeton, A.B. and Piazza, G. A. ADT-030, a novel dual-acting RAS and  $\beta$ -catenin pathway inhibitor with robust antitumor activity. AACR Annual Meeting 2023, **2023**, April 14 – 19, Orlando, FL.
58. Bian, T.; Jin, L.; Xing, C. Chronic NNAL exposure, mimicking tobacco use in humans, deactivates LKB1 and promotes tumor progression in non-small cell lung cancer, College of Pharmacy Research Showcase, **2023**, February 6, University of Florida, Gainesville, FL.
59. Freeman, B.; Hu, Q.; Xing, C. NNK- and NNAL-specific adducts across a dose response of NNK in mice and its potential clinical indications. UF College of Pharmacy Research Showcase, **2023**, February 6, Gainesville, FL.
60. Mamallapalli, J.; Botello, J.; Wang, Y.; Xing, C. Kava's potential anti-stress mechanism: antagonism of the  $\beta$ 2-adrenergic receptor, College of Pharmacy Research Showcase, **2023**, February 6, University of Florida, Gainesville, FL.
61. Mamallapalli, J.; Freeman, B.; Xing, C. Antagonism of the  $\beta$ 2-adrenergic receptor as a potential anti-stress mechanism of kava and its kavalactones characterized via a cell-based cAMP assay, ACS Spring 2023 Crossroads of Chemistry, **2023**, March 27-30, Indianapolis, IN (SCI-MIX poster session and accepted oral presentation).
62. Bian, T.; Jin, L.; Xing, C. Chronic NNAL exposure, mimicking tobacco use in humans, deactivates LKB1 and promotes tumor progression in non-small cell lung cancer, The Wertheim UF Scripps Institute Chemical Biology & 5th UF Drug Discovery Symposium, **2023**, April 20-21, Jupiter, FL.
63. Mamallapalli, J.; Freeman, B.; Xing, C. Antagonism of the  $\beta$ 2-adrenergic receptor as a potential anti-stress mechanism of kava and its kavalactones characterized via a cell-based cAMP assay, The Wertheim UF Scripps Institute Chemical Biology & 5th UF Drug Discovery Symposium, **2023**, April 20-21, Jupiter, FL.
64. Freeman, B.; Corral, P.; Xing, C. Kavalactone total synthesis using the double Reformatsky addition. UF Chemistry-Biology Interface Predoctoral Training Program Mini-Symposium. **2022**, September 24, Gainesville, FL
65. Freeman, B.; Hu, Q.; Xing, C. NNK- and NNAL-specific adducts across a dose response of NNK in mice and its potential clinical indications. The Wertheim UF SCRIPPS Institute Chemical Biology & 5th UF Drug Discovery Symposium. **2023**, April 20-21, Jupiter, FL.
66. Scala, A.; Mamalapalli, J.; Xing, C. Analysis of Six Major Kavalactones in Generalized Anxiety Disorder (GAD) Clinical Trial Kava Capsules via High-Performance Liquid Chromatography (HPLC-UV). UF undergraduate research symposium, **2023**, Nov. 3, Gainesville, FL.

## **Patents**

1. Myers, A.; Plowright, A. T.; Kung, D. W.; Lanman, B.; Barbay, J. and **Xing, C.** Preparation of saframycin analogs for pharmaceutical use in the treatment of cancer. PCT Int. Appl. **2002**, WO 2002040477.
2. Skibo, E. B. and **Xing, C.** Recognition and cleavage at the DNA major groove. U.S. Pat. Appl. Publ. **2003**, US 2003119022.
3. Skibo, E. B. and **Xing, C.** Aziridinyl Quinone Antitumor Agents Based on Indoles and Cyclopent[b]indoles: Structure-Activity Relationships for Cytotoxicity and Antitumor Activity. U.S. Pat. Appl. Publ. **2003**, US 2003139609.
4. Skibo, E. B. and **Xing, C.** Preparation of N-unsubstituted cytotoxic (aziridinyl)indolediones and (aziridinyl)cyclopent(b)indolediones for the treatment of cancer. U.S. Pat. Appl. Publ. **2004**, US 20040006054.
5. Myers, A.; LaPorte, J.; **Xing, C.** Assay for identifying biological targets of polynucleotide-binding compounds. U.S. Appl. Publ. **2004**, US 2004248100.
6. **Xing, C.**; Doshi, J. M. Therapeutic compounds, U. S. Patent, **2009**, US2008057892.
7. **Xing, C.** Therapeutic compounds, U. S. Patent, **2009**, US2008084409
8. **Xing, C.** and Wang, J. Nanosensor, U.S. Patent, **2009**.
9. **Xing, C.** et al. KAVA EXTRACTS, ISOLATED KAVALACTONES, AND USES IN TREATING TOBACCO AND NICOTINE ADDICTION. PCT/US2018/047879. **2019**.
10. **Xing, C.** Kava derived therapeutic compounds and methods of use thereof, Chinese 201480072832.2, **2020**
11. **Xing, C.** Kava derived therapeutic compounds and methods of use thereof, US 10,624,943 B2, **2020**
12. **Xing, C.** THERAPEUTIC COMPOUNDS AND METHODS OF USE THEREOF, US 10584108, **2020**
13. **Xing, C.** Kava derived therapeutic compounds and methods of use thereof, US 10,918,687 B2, **2021**.

## **Courses, seminars, and instructional units taught**

1. BIOTRANSFORMATION CONSIDERATIONS IN DRUG DESIGN (PHA6468, course director), 2022, 6 lecture hours
2. Drug Design II (PHA6936, course director), 2018 – 2022, 6 lecture hours.
3. Drug Design I (PHA6447), 2017 - present, 4 lecture hours.
4. Fundamentals of Cancer Biology (GMS6065), 2023, 2 lectures
5. Introduction to Graduate Skills (PHA6894), 2017 – present, 2 lecture hours.
6. Introduction to drug discovery (PHA6935), 2017 – present, 1 lecture hours.
7. Department Seminar (PHA6447), 2017, 30 lecture hours.
8. Patient Care 7 (PHA5080), 2018 - present, 4 lecture hours
9. Patient Care 4 (PHA5784), 2017 – present, 6 lecture hours.

10. Principles of Medicinal Chemistry and Pharmacology I (PHA5439), 2022 – present, 4 lecture hours
11. Medicinal Agent I (Phar 6154, Principles of Drug Action), 2004-2009, 12 lecture hours per year.
12. *Medicinal Agent III (Phar 6156, Anticancer Agents)*, 2005-2016, 16 lecture hours per year.
13. Principles of Medicinal Chemistry (MedC 5700, DNA and related therapies and physicochemical properties of drugs), 2005, 2007, and 2009, 11 - 15 lecture hours every year.
14. Vistas in Medicinal Chemistry Research, (MedC 5495), 2003-2016, 1 lecture hour per year.
15. Principles of Medicinal Chemistry (MedC 8002, DNA and related therapeutics), 2011, 2103, and 2014, 12 lectures each year.
16. Principles of Medicinal Chemistry (MedC 8001, SAR of nucleosides), 2014, 2 lecture hours each year.
17. Summer Journal Club, 2005 – 2007, organizing the journal club, 10 hours per year.
18. Design of Chemotherapeutic Agents (MedC 8500), Fall, 2011 and 2013, 18 lecture hours per year.
19. Natural Medicine (kava pharmacokinetics and pharmacodynamics), 2014 - present, 1 – 2 lecture hour per year.

#### **Curriculum Development**

1. Drug Design II (PHA6936), 2018, developing the graduate course, 42 lecture hours per semester.
2. BIOTRANSFORMATION CONSIDERATIONS IN DRUG DESIGN (PHA6468, course director), 2022, developing the graduate course, 28 lecture hours
3. Summer Journal Club, 2005 – 2007, organizing the journal club, 10 hours per year.
4. Design of Chemotherapeutic Agents (MedC 8500), Fall, 2011, and 2013, 28 lecture hours per year.

#### **Faculty Development Activities regarding teaching**

Workshop with the Center for Teaching and Learning for the Early Career Teaching Programs, 2007

#### **ADVISING AND MENTORING**

##### **High School Student Activities**

Ryan Johnston (SSTP)

June 2017 – July 2017

##### **Undergraduate Student Activities**

Undergraduate research projects (UROPS, directed research, lab participation, etc.)

Fansen Kong	Feb. 2004 – June, 2006
Midhasso Hama Foge	Jan. 2007 – July, 2007
Debelá Gameda	May 2007 – Dec. 2007
Mariam Warsame	Sept. 2007 – Dec. 2007
Maryam Mohammed	Sept. 2007 – Dec. 2007
Asmeret Tesfahun	Sept. 2007 – May 2008
Marie A. Hugger	July 2007 – July 2009
Jonathan Tan Jian Yong	Jan. 2010 – Dec. 2010
Bei Li	Jan. 2010 – Aug. 2010
Hyojin Lee	Sept. 2010 – May. 2011
Evan Hendrickson	Jan. 2011 – May 2011

Matthew Guan	May 2011 – Sept. 2011
Hayat Hassen	July 2011 – Sept 2012
Pablo Leitzmen	Jan. 2011 – July 2012
Julie Lao	May 2014 – Sept. 2014
Mary O’Sullivan	May 2014 – Sept. 2015
Da Yeon Lee	July 2014 – 2016
Haini Zhang	August 2014 – August 2015
Philip Leung	Jan 2015 – 2016
Gregory Mannino	August 2015 – 2016
Vickie Nguyen	March 2017 – May 2018
Nikhita Yadlapalli	March 2017 – May 2018
Krishna Bhakta	March 2017 – May 2018
Charles Soukup	May 2017 – May 2018
Justin Farley	May 2017 – Dec. 2017
Janel Aslan	May 2017 – July 2018
Jordy Botello	May 2017 – June 2020
Neffie	June 2019 – Sept 2019
Mathew	June 2019 – Sept 2019
Youn Lee	June 2019 – June 2020
Annamarrie Huy	June 2019 – June 2020
Pedro Coral	May 2017 – June 2021
Taina Moore	May 2022 – August 2022
Valeria Gomez	May 2022 – August 2022
Kayleigh Ballas	May 2022 – present
Alexander Scala	Sept. 2022 – present

#### Graduate Student Activities

##### Master’s Theses Directed

Sadiya N. Addo	Fall 2005 – Spring 2008 (Graduated)
Thesis title: Mechanistic studies of small-molecule antagonists of anti-apoptotic Bcl-2 proteins.	
Thomas E. Johnson	Fall 2005 – Fall 2008 (Graduated)
Thesis title: Design, synthesis, and biological evaluation of potential chemopreventive agents against lung tumorigenesis.	
Nicholas Bleeker	Fall 2010 – Spring 2013 (Graduated)
Thesis topic: Advancing a novel chemotype for the treatment of multidrug-resistant cancer.	
Denise Casemore	Fall 2013 – present
Thesis topic: SERCA and CXL candidates in multi-drug resistance	

##### Master’s Student Advisees

Shui Li	2012 – 2013
Dan Wang	2011 – 2013
John Fortner	2018 – 2021

##### Doctoral Dissertations Directed

Jignesh M. Doshi	Fall 2003 – Spring 2008 (Graduated)
Thesis title: Rational design, syntheses, and biological evaluation of antagonists against anti-apoptotic Bcl-2 proteins.	

Sonia Das Fall 2006 – Fall 2011 (Graduated)  
Thesis title: Development of effective anti-cancer agents targeting drug-resistant malignancies

David Hermanson Fall 2007 – Fall 2012 (Graduated)  
Thesis topic: Mechanisms of CXL017: targeting drug resistant cancer.

Bo Zhou Fall 2010 – Spring 2016 (Graduated)  
Thesis topic: Kava, its efficacy against various diseases, its safety, active constituents, and mechanism of action

Qi Hu Fall 2017 – present  
Thesis topic: Dihydromethysticin and its chemopreventive structure-activity relationships

Jessica Mamallapalli Fall 2019 – present  
Thesis topic: Precision lung cancer prevention through biomarker development

Breanne Freeman Fall 2020 – present  
Thesis topic: Structure-activity relationships of kavalactones and their biological activities

Allyson Lynch Fall 2022 – present  
Thesis topic: detailed mechanism of kava detoxification of tobacco carcinogens

Yifan Wang Fall 2023 – present

**Doctoral Students Advised (Academic advising for all or part of graduate student's program)**

Li Liu	2004 – 2009
Brian White	2005 – 2010
Jin Zhou	2006 – 2011
Sanna Bardaweel	2007 – 2011
Rahul Lad	2007 – 2011
Kwon Ho Hong	2007 – 2013
Cece Martin (plant biological sciences)	2010 – 2015
Li-Kai Liu	2011 – 2016
Nick Struntz	2011 – 2016
Adam Zarth	2013 – 2016
Aniekan M. Okon	2013 – 2016
Chang Liu	2013 – 2016
Kimberly M. Maize	2013 – 2016
Emily Boldry	2014 – 2016
Trent West	2014 – 2016
Jake Peterson	2014 – 2016

**Doctoral Committees Served on**

Dorian Nelson	2005 – 2006
Mathew Grandois	2005 – 2006
Daniel Wheritt	2005 – 2006
Enver Cagri Izgu	2007 – 2008
Giang Hoang	2008 – 2012
Feng Shao	2009 – 2010
Zhongda Pan	2011 – 2012
Andrew Michel	2012 – 2013

Prashant K Singh	2017 – 2019
Ahmad Al-Bashaireh	2017 – 2019
Yingfu Lin	2017 – 2019
Bishwaprava Das	2019 – 2022
Marci Smeltz	2016 – 2018
Catherine	2018 – 2019
Robyn Pescatore	2017 – 2020
Dake Liu	2017 – present
Kelton Schleyer	2019 – present
Zachary Robinowitz	2021 – present
Zhishen Wang	2021 – present
Jonathan Somers	2022 – present
Hens Laurent	2022 – present

### Professional Student Activities

Professional students supervised

#### ***Pharm. D Research***

Becky Gnan	Dec. 2005 – June, 2006
Mariam Somji	Feb. 2007 – Aug. 2007
Marie Hugger	April 2008 – June 2009
Joshua McBride	April 2017 – June 2017
Jimenez Hernandez	Oct. 2021 – June, 2022

#### ***Pharm. D Paper***

Michelle Borchart	Spring 2005 – Fall 2005
Jessica R. Kaeser	Spring 2006 – Fall 2006
Becky Gnan	Spring 2006 – Fall 2006
Minh Ha	Spring 2006 – Fall 2006
Angela Schlagel	Spring 2007 – Fall 2007
Heather Stubbe	Spring 2007 – Fall 2007
Mariam Somji	Spring 2007 – Fall 2007
Robert Kinyua	Spring 2008 – Fall 2008
Robert Kin	Spring 2009 – Fall 2009
Katie Kline	Spring 2009 – Fall 2009
Sean Kenny	Spring 2010 – Fall 2011
Marie A. Hugger	Spring 2010 – Fall 2011
Kathy Olson	Spring 2010 – Fall 2011
Natasha Thoner	Spring 2010 – Fall 2011
Shelleaha Nippoldt	Spring 2011 – Fall 2011
Karen McEiver	Spring 2012 – Fall 2012
Megan Nimke	Spring 2012 – Fall 2012
Quang-Thinh P. Cao	Fall 2012 – Spring 2013
Maureen Reilly	Fall 2012 – Spring 2013
Christina Yi	Fall 2012 – Spring 2013
Aimee Rosin	Fall 2012 – Spring 2013

### Post-doctoral fellows supervised

XiaoHu Tang	August 2003 – Feb. 2005
Research topic: developing methods to identify protein-specific modulator	
Liangyou Wang	Dec. 2004 – May, 2007



- Research topic: developing methods to identify protein-specific modulator and synthesizing lead compounds  
 Defeng Tian March 2005 – Sept. 2007  
 Research topic: elucidating the mechanism of action of small-molecule Bcl-2 antagonists  
 Balasubramanian Srinivasan August 2007 – April 2011  
 Research topic: developing GMR sensor- and nanoparticle-based detection system for early cancer detection.  
 Ahmad Ali Shaik Sept. 2008 – Dec. 2011  
 Research topic: synthesizing stabilized decurcinol analogs for anticancer evaluation.  
 Jinling Zhang Jan. 2011 – Dec. 2011  
 Research topic: evaluating the in vivo efficacy of various candidates.  
 Aridoss Gopalakrishnan August 2011 – July 2012  
 Research topic: synthesizing small molecule candidates against drug resistant leukemia.  
 Yunfang Li May 2012 – July 2012  
 Research topic: elucidating the mechanisms responsible for CXL's selective anticancer potential against drug resistant malignancies.  
 Xingxin Yu August 2012 – Present  
 Research topic: developing DYRK2 inhibitors and chemical probes for biological investigation and disease treatment/prevention.  
 Xin Huang July 2012 – Dec. 2012  
 Research topic: characterizing the mechanism of action of various kava chemicals in vitro and evaluating the efficacy of CXL compounds against drug resistance/stem cells in AML.  
 Manohar Puppala Feb. 2012 – Feb. 2014  
 Research topic: synthesizing CXL compounds, natural products, and peptides.  
 Shang-Husan Lin Oct. 2015 – July 2017  
 Research topic: characterizing the interaction of kavalactones with the AHR pathway.  
 Haifeng Sun Oct. 2015 – March 2017  
 Research topic: rational design and synthesis of CXL compounds based on the x-ray structure and pharmacokinetic analysis of CXL055.  
 Kavitha Chandajirikippal Oct. 2016 – Oct. 2017  
 Research topic: mechanistic investigation of CXL compounds for their selective cytotoxicity towards drug resistant cancers.  
 Yi Wang Oct. 2016 – August 2018  
 Research topic: investigating the impact of kava on human benefit via LC-MS/MS based analysis  
 Sreekanth Narayanapillai Jan. 2013 – Dec. 2018  
 Research topic: investigating the in vivo efficacy and mechanisms of various natural and synthetic organic molecules  
 Tengfei Bian April. 2017 – present  
 Research topic: investigate calcium regulation by SERCA and other proteins in GUV and in intact cells.  
 Santanu Hati July 2017 – August 2018  
 Research topic: structure-activity relationships of kavalactones on NNK-induced lung tumorigenesis  
 Yuzhi Wang July 2019 – June 2021  
 Research topic: stress, tobacco smoke and lung cancer development and kava perturbation  
 Min Xu July 2019 – Dec. 2020  
 Research topic: biomarker development for stress, tobacco, and other indications

**Visiting scholars supervised**

- Chunlin Zhuang Dec. 2012 – Nov. 2013

Tengfei Bian  
Yuesheng Dong  
Xinghua Zhao  
Yougeng Wu

Oct. 2013 – Sept. 2014  
Sept. 2013 – August, 2014  
March 2015 – Feb. 2016  
March 2018 – May 2019

#### Other Mentoring Activities

##### *Rotation advisor*

Li Liu	09/05/2003 - 11/09/2003
Brian White	11/10/2003 - 01/15/2003
Jignesh Doshi	11/10/2003 – 01/15/2003
Liaodan Liu	11/10/2004 - 01/15/2004
Leon Goeden	11/10/2005 - 01/15/2005
Rahul Lad	11/06/2006 – 01/15/2006
Sreedhar Tummalapalli	11/06/2006 – 01/15/2006
Satish Patil	11/06/2006 – 01/15/2006
Kathryn Pietsch	06/10/2007 – 09/03/2007
Hailey Gahlon	11/05/2007 – 01/18/2008
Anja Lesaga	11/05/2007 – 01/18/2008
Shui Li	06/08/2009 – 08/14/2009
Nick Struntz	11/09/2009 – 01/15/2010
Kari Schuett	11/09/2009 – 01/15/2010
Bo Zhou	11/09/2010 – 01/15/2011
Nick Bleeker	11/09/2010 – 01/15/2011
Skye Doering	09/06/2011 – 10/18/2011
Arnie Groehler	10/19/2011 – 12/04/2011
Aniekan Okan	12/05/2011 – 01/20/2012
Harrison T West	09/10/2012 – 10/25/2012
Cody Lensing	10/29/2012 – 12/10/2012
Jacob Petersburg	10/29/2012 – 12/10/2012
Liang Guo	11/05/2012 – 03/05/2013
Denise Casemore	09/21/2013 – 10/21/2013
Alex Strom	09/15/2014 – 10/17/2014
Cliff Csizmar	10/20/2014 – 12/05/2014
Jiewei Jiang	10/20/2014 – 12/05/2014
John Schultz	09/15/2015 – 10/17/2015
Dake Liu	08/2017 – 01/2019
Garret Rubin	08/2018 – 10/2018

#### Editorial board for peer-reviewed journals

- Metabolites
- Biology
- Madridge Journal of Pharmaceutical Research
- Future Medicinal Chemistry
- Molecules
- Journal of Modern Medicinal Chemistry

#### Journal Reviewer Experience

- |                     |                |
|---------------------|----------------|
| • Chem. Res. Toxic. | 2003 – present |
| • J. Med. Chem.     | 2003 – present |
| • Biochemistry      | 2007 – present |

• PLoS One	2011 – present
• Bioorg. Med. Chem.	2003 – present
• Peptides	2003
• Bioorg. Med. Chem. Lett.	2004 – present
• Cancer Lett.	2006 – present
• Mol. Pharm.	2007 – present
• Eur. J. Med. Chem.	2009 – present
• Journal of Cell Science	2011 – present
• FEBS Letters	2011 – present
• Beilstein Journal of Organic Chemistry	2012 – present
• European Journal of Gastroenterology and hepatology	2013 – present
• Molecular Cancer Therapeutics	2013 – present
• Nutrition Research	2013 – present
• Oncogene	2016 – present
• ACS Med. Chem. Lett.	2016 – present

#### **Review panels for funding agencies, foundations, and internal opportunities**

• The National University of Singapore Research Grant	2006 – 2008
• The James and Esther King Biomedical Research Program	2006 – 2008
• Biomedical Research Council, Singapore A STAR Grant	2007 – 2008
• Natural Sciences and Engineering Research Council of Canada	2007 – 2008
• NCI RAID Program	2008 – 2009
• CDMRP (Congressionally Directed Medical Research Program)	2008 – 2010
• NIH/Cancer Biomarker Study Section	2010 – 2011
• NIH/Fogarty Review	2012
• NIH/CDP ad hoc	2015
• CDMRP (Congressionally Directed Medical Research Program)	2017
• CDMRP (Congressionally Directed Medical Research Program)	2018
• LIRR study Section	2019
• NCI/PREVENT	2019 – present
• ZAT1 AJT/U54	2020
• CPSS (Cancer Prevention Study Section)	2021
• CE (Cancer Etiology)	2022
• AHC Faculty Research Development Grant	2006 – 2007
• AHC Faculty Research Seed Grant	2008 – 2009
• HFHL Research Grant	2009 – 2010
• AHC India-U	2010 – 2010
• AHC Small Grant Program	2012 – 2013
• Masonic Cancer Center Pilot Grant	2012 – 2013
• Minnesota Chemoprevention Consortium Pilot Grant	2012 – 2013
• CBITG Grant	2013 – 2014
• HFHL Research Grant	2014 – 2015
• PROSPER	2016 – 2020
• UF Opportunity Fund	2019

#### **Organization of conferences, workshops, panels, symposia**

- ACS National Meeting (2006, San Francisco, CA) Medicinal Chemistry Division “Activators of

- apoptosis” – Co-chair with Paul Hergenrother
- AACR National Meeting (2007, Los Angeles, CA) Drug Discovery and Design “Targeted Design and Delivery” – Co-chair with Diane Boschelli
- ACS National Meeting (2013, New Orleans, LA) Medicinal Chemistry Division “Mechanisms of drug resistance in cancer and novel therapies” – Chair

## Service To The University/College/Department

### *University of Florida*

#### University-wide service

- Chemical Biology Interdisciplinary Steering Committee. University 2020 – present

#### Collegiate Service and Intercollegiate Service

- International Committee 2018 – 2019
- Faculty Governance Committee 2016 – present
- Pharm D Admission Committee 2019 – present
- ICBR Proteomics Scientific Advisory Group 2020 – present

#### Department/Unit Service

- Faculty Search Committee (co-Chair), Dept. of Med. Chem. 2016 – 2017
- Faculty Search Committee (Chair), Dept. of Med. Chem. 2017 – 2018
- Faculty Search Committee (Chair, for McCurdy group) 2017 – 2019
- Dept tech Search Committee (co-Chair) 2019 – 2019
- Center Scientist Search Committee 2019 – 2019
- Faculty Search Committee (Chair, for McCurdy group) 2019 – 2020
- Faculty Search Committee (for Zheng group) 2020 – 2021
- Faculty Search Committee (Chair), Dept of Med. Chem. 2021 – 2022

### *University of Minnesota*

#### University-wide service

- Chemical Biology Interdisciplinary Steering Committee. University 2007 – 2011
- Chemical Biology Interdisciplinary Admission Committee University 2007 – 2016
- Chembio Recruitment Steering Committee, University 2006 – 2007
- Masonic Cancer Center Research Symposium Committee 2011 – 2012
- Masonic Cancer Center Research Symposium Abstract Review 2012
- Masonic Cancer Center Pathology Internal Advisory Board (Chair) 2012 – 2016
- Medical Scientist Training Program (MD/PhD) 2013 – 2015
- Healthy Food and Healthy Life Institute Advisory Board 2015 – 2016

#### Collegiate Service and Intercollegiate Service

- Faculty Search Committee, Dept. of Pharmaceutics 2006 – 2007
- Admission Committee for College of Pharmacy 2006 – 2009
- College of Pharmacy Diversity Task Force Committee 2009 – 2013
- Mission Self Study Committee, College of Pharmacy 2008 – 2009
- EPC committee (chair elect) 2010 – 2011
- EPC committee (chair) 2011 – 2012
- EPC committee 2010 – 2013
- Rowell Fellowship Review Committee 2012

- |   |             |
|---|-------------|
| • PPS Oncology Faculty Search Committee, Duluth | 2014 – 2016 |
| • College Accreditation Committee               | 2014 – 2016 |

Department/Unit Service

- |   |             |
|---|-------------|
| • Dept. Med. Chem. Committee for revising the cumulative exam     | 2006        |
| • Faculty Search Committee, Dept. of Med. Chem.                   | 2006 – 2007 |
| • Graduate Student Recruitment Committee, Dept. of Med. Chem.     | 2006        |
| • Graduate Admissions Committee, Dept. of Med. Chem.              | 2006 – 2011 |
| • Comprehensive exam committee, Dept. of Med. Chem. (chair: 2011) | 2008 – 2011 |
| • Faculty Search Committee, Dept of Med. Chem.                    | 2008 – 2010 |
| • Review committee for probationary faculties                     | 2009 – 2013 |
| • Med. Chem. Student Award Committee (chair)                      | 2012        |
| • Graduate Admission Committee, Dept. of Med. Chem.               | 2012 – 2013 |
| • Graduate Recruiting Committee, Dept. of Med. Chem.              | 2013 – 2015 |
| • Review committee for probationary faculties                     | 2015        |