CURRICULUM VITAE

IDENTIFYING INFORMATION

Academic Rank

Professor, Department of Medicinal Chemistry
Graduate Faculty Appointment in Graduate Program in Medicinal Chemistry
UF Cancer Center Member

Education

Degree	Institution	Date Degree Granted
B.S.	Dalian University of Technology Area: chemistry and chemical engineering	1991 – 1996
Ph.D.	Arizona State University Area: organic chemistry/Department of Chemistry and Biochemistry Advisor: Edward B Skibo	1996 – 2001

Positions/Employment

University of Florida, Gainesville — 2016 – present
Frank A. Duckworth Eminent Scholar Chair and Professor

University of Minnesota, Twin Cities Campus — 2003 – 2016
Professor — 2014 – 2016
Associate Professor — 2009 – 2014
Assistant Professor — 2003 – 2009

Postdoctoral appointments
Harvard University, Department of Chemistry and Chemical Biology (Mentor: Andrew G. Myers) — 2001 – 2003

Graduate appointments
Graduate Research Assistant — 1998 – 2001
Graduate Teaching Assistant — 1996 – 1998

Current Membership in Professional Organizations

Society of Toxicology — 2013 – present
American Association for Cancer Research — 2004 – present
American Association of the Colleges of Pharmacy — 2003 – present
Masonic Cancer Center — 2003 – present
American Chemical Society — 1998 – present

HONORS AND AWARDS FOR RESEARCH/CREATIVE WORK, TEACHING, PUBLIC ENGAGEMENT, AND SERVICE

University of Minnesota

Pharmacy Professional Teaching Award	2014 – 2015
Pharmacy Professional Teaching Award	2006 – 2007
AACP Young Investigator Award	2005 – 2006

External Sources

Graduate Fellowship	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

RESEARCH, SCHOLARSHIP, AND CREATIVE WORK

Grants and Contracts

External Sources

Active

Role: Principal investigator
Agency: NIH – NCI/R01CA193278
Title: Dihydromethysticin (DHM) for lung cancer chemoprevention
Period: 2015 – 2020
Direct cost: $228,750/year

Role: Principal investigator
Agency: NIH – NCI/R01CA163864
Title: Mechanisms of anticancer agents selective against drug resistant leukemia
Period: 2012 – 2017
Direct cost: $207,500/year

Pending

Role: PI
Agency: Florida State
Title: Enhancing tobacco carcinogen excretion and decreasing tobacco use with a dietary supplement kava
Period: 2018 – 2023
Direct cost: $265,000/year

Role: PI
Agency: NIH/NCCIH
Title: A phased clinical trial of a dietary supplement kava: biomarker changes and anxiolytic effects
Period: 2018 – 2023
Direct cost: $1,150,000 five years

Role: PI
Agency: NIH – R03
Title: The impact of kava to reduce lung cancer risk via a metabolomics analysis

Period: 2017 – 2019
Direct cost: $50,000/year

Role: PI
Agency: NIH – R41
Title: SERCA inhibitors for therapy of multi-drug resistant cancers
Period: 2016 – 2017
Direct cost: $128,000/year

Role: PI
Agency: NIH – R41
Title: Reviving an old folk medicine, kava, for effective and safe management of anxiety
Period: 2016 – 2017
Direct cost: $260,485/year

Role: Consultant
Agency: NIH – R42
Title: Dihydromethysticin, targeting two root causes, to prevent colon cancer development in Apc^{min+} mice
Period: 2016 – 2017
Direct cost: $297,332/year

Completed

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: $40,000/year

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

University of Florida			
College of Pharmacy	PROSPER	2017 – 2018	$10,000
Focused NCI SPORE	Seed Grant	2017 – 2018	$12,500

Received at the University of Minnesota – Student Grants

Thomas Johnson	
3M Fellowship, 3M Company	2005 – 2006
AFPE Fellowship, American Foundation of Pharmaceutical Education	2006 – 2007
Chemical Biology Initiative trainee, NIH	2006 – 2007
David Hermanson	
AFPE Fellowship, American Foundation of Pharmaceutical Education	2010 – 2011
University Ph.D. Dissertation Fellowship	2011 – 2012
Sonia Das	
University Ph.D. Dissertation Fellowship	2010 – 2011

University Sources (include the titles, dates, and amount of the awards)

Grant-in-Aid

Active

Completed

Role: co-P.I. (PI: Portoghese)
Duration: 2008–2009
Direct cost: $15,000
Title: Flexstation II 96-well Benchtop Scanning Fluorometer & Integrated Fluid Transfer Workstation

Role: P.I.
Duration: 2004–2005
Direct cost: $20,961
Title: Developing member-specific Bcl-2 small-molecule modulators.

Role: P.I.
Duration: 2004–2005
Direct cost: $14,750
Title: GENios Pro Multidetection Microplate Reader

Other awards from the Office of the Vice President for Research or the Graduate School

Active

Completed

Role: co-P.I.
PI: Joel Slaton
Agency: Academic Health Center
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
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
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

Awards from other University Sources (Office of International Programs, CURA, Office of Public Engagement, etc.)

Active

Completed
Role: P.I.
Agency: Masonic Cancer Center/Seed Grant
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^2 award
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.
P.I.: Fekadu Kassie
Agency: Masonic Cancer Center Brainstorm
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
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
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
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
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-induce 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
Title: Method for developing protein-specific modulators
Duration: 2004–2005
Direct cost: $50,000

Awards from colleges

Completed

Role: P.I.
Agency: College of Pharmacy
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
Title: GAP grant for revised reviewed proposal
Duration: 2012-2013
Direct cost: $40,000

Role: P.I.
Agency: College of Pharmacy
Title: A novel DYRK2 inhibitor for anxiety treatment
Duration: 2012-2013
Direct cost: $25,000

Role: P.I.
Agency: College of Pharmacy
Title: Novel NF-κB inhibitors for lung cancer treatment
Duration: 2009-2010
Direct cost: $30,000

Publications

Refereed Journal Articles (use any standard format that the candidate's field uses)

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)-4*H*-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 *Mycobaceterium 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-κB 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'-tetramethyoxychalcone and its analogs as potent NF-κB 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.; Nhkata, 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]

33 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. *J. Med. Chem.* **2012**, 55(11): 5566-5581. PMID: 22582991 [PubMed - indexed for MEDLINE].

34 Warmka, J. K.; Solberg, E. L.; Zeliadt, N. A.; Srinivasan, B.; Charlson, A. T.; Xing, C.; Wattenberg, E. V. Inhibition of mitogen activated protein kinases increases the sensitivity of A549 lung cancer cells to the cytotoxicity induced by a kava chalcone analog. *Biochem. Biophy. Res. Comm.* **2012**, 424(3): 488-492. PMID: 22771807 [PubMed - in process].

35 Zhang, Y.; Srinivasan, B.; Xing, C.; Lu, J.* A new chalcone derivative (*E*)-3-(4-methoxyphenyl)-2-methyl-1-(3,4,5-trimethoxyphenyl)prop-2-en-1-one suppresses prostate cancer growth involving P53-mediated cell cycle arrests and apoptosis. *Anticancer Res.* **2012**, 32(9): 3689-3698. PMID: 22993307 [PubMed - in process].

36 Das, S. G.[#]; Hermanson, D. L.[#]; Bleeker, N.; Lowman, X.; Li, Y.; Kelekar, A.; Xing, C.* Ethyl 2-amino-6-(3,5-dimethoxyphenyl)-4-(2-ethoxy-2-oxoethyl)-4*H*-chromene-3-carboxylate (CXL017) a novel scaffold that re-sensitizes multidrug resistant leukemia cells to chemotherapy. *ACS Chem. Biol.* **2013**, 8(2): 327-335. PMID: 23102022 [PubMed - as supplied by publisher].

37 Li, L.; Zhang, J.; Xing, C.; Kim, S. H.; Lu, J.* Single oral dose pharmacokinetics of decursion, decursinol angelate, and decursinol in rats. *Planta Med.* **2013**, 79(3-4): 275-280.

38 Hermanson, D. L.; Li, Y.; Das, S. G.; Xing, C.* Over-expression of Mcl-1 via ERK1/2 mediated stabilization confers cross-resistance while topo IIβ down-regulation introduces mitoxantrone-specific resistance in acute myeloid leukemia. *Mol. Pharmcol.* **2013**, 84(2): 236-243.

39 Li, L.; Zhang, J.; Xing, C.; Kim, S. H.; Jiang, C.; Lu, J.* In Vitro Metabolism of Pyranocoumarin Isomers Decursin and Decursinol Angelate by Liver Microsomes from Man and Rodents. *Planta Med.* **2013**, 79(16): 1536-1544. The candidate was responsible for conception of the methods for compound design and synthesis, interpretation of all results, and writing the manuscript.

40 Bleeker, N. P.; Cornea, R. L.; Thomas, D. D.; Xing, C.* An Inhibitor of the Sarco/Endoplasmic Reticulum Ca^{2+}-ATPase Demonstrates Synergy with Multiple SERCA Inhibitors and Mitigates Multidrug-Resistant Leukemia. *Mol. Pharm.* **2013**, 10(11): 4358-4366.

41 Leitzman, P.; Naayanapillai, S. C.; Balbo, S.; Zhou, B.; Shaik, A.; O'Sullivan, M. G.; Upadhyaya, P.; Hecht, S. S.; Lu, J.; Xing, C.* Kava Completely Blocks 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone-induced Lung Tumorigenesis via Reducing DNA Damage in A/J Mice. *Cancer Prevention Res.* **2014**, 1(7): 86-96.

42 Zhuang, C.; Narayanapillai, S.; Zhang, W.; Sham, Y. Y.;* Xing, C.* Rapid Identification of Small Molecule Inhibitors of Keap1–Nrf2 Interaction through Structure–Based Virtual Screening and Hit–Based Similarity Search. *J. Med. Chem.* **2014**, 57(3), 1121-1126.

43 Zhuang, C.; Miao, Z.; Wu, Y.; Guo, Z.; Li, J.; Yao, J.; Xing, C.; Sheng, C.; Zhang, W. Double-edged swords as cancer therapeutics: novel orally active small molecules simultaneously inhibit p53-MDM2 interaction and the NF-kB pathway. *J. Med. Chem.* **2014**, 57(3), 567-577.

44 He, W.; Wang, Q.; Srinivasan, B.; Xu, J.; Padilla, M. T.; Wang, X.; Gou, X.; Shen, H.; Xing, C.*; Lin, Y.* A JNK-mediated autophagy pathway that triggers c-IAP degradation and necroptosis for anticancer chemotherapy. *Oncogene* **2014**, 33(23): 3004-3013.

45 Ding, J.; Mooers, B.H.; Zhang, Z.; Kale, J.; Falcone, D.; McNichol, J.; Huang, B.; Zhang, X. C.; Xing, C.; Andrews, D. W.; Lin, J. After Embedding in Membranes Bcl-XL Binds Both the BH3 Region and Helix 1 of Bax to Inhibit Apoptotic Mitochondrial Permeabilization. *J. Biol. Chem.* **2014**, 289(17), 11873-11896.

46 Narayanapillai1, S.; Balbo, S.; Leitzman, P.; Grill, A.; Upadhyaya, P.; Shaik, A.; Zhou, B.; O'Sullivan, M. G.; Lu, J.; Peterson, L.; Hecht, S. S.*; Xing, C.* Dihydromethysticin (DHM) from kava blocks tobacco carcinogen 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK)-induced lung tumorigenesis and differentially reduces DNA damage in A/J mice. *Carcinogenesis* **2014**, 35(10), 2365-2372.

47 Narayanapillai1, S.; Leitzman, P.; O'Sullivan, M. G.; Xing, C.* Flavokawains A and B in kava, not dihydromethysticin, potentiate acetaminophen-induced hepatotoxicity in C57BL/6 mice. *Chem. Res. Toxic.* **2014**, 27(10), 1871-1876.

48 Zhang, J.; Wang, L.; Zhang, Y.; Li, L.; Tang, S.; Xing, C.; Kim, C-H.; Jiang, C.; Lü, J. Chemopreventive effect of Angelica gigas Nakai (AGN) root extract on TRAMP carcinogenesis and integrative "omic" profiling of affected neuroendocrine carcinomas. *Molecular Carcinogenesis.* **2014**, in press.

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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, 5th 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^{2+}-ATPase as novel leads in the treatment of drug resistant leukemia, **2012**, St. Paul, 5th CBI symposium.

33. Xing, C., Hermanson, D.; Aridoss, G.; Das, S. Mechanisms of multidrug resistance in AMLs and selective targeting via small molecules. 2nd Masonic Cancer Center Symposium, 2012, Minneapolis.

34. Linda B. von Weymarn, Pablo Leitzman, Xingxin Yu, Chengguo Xing, Sharon E. Murphy. Kavalactones, inhibitors of NNK tumorigenesity 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 105th 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 105th 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 106th AACR national meeting, 2015, April 18 – 22. Philadelphia, PA

Other Key Activities and Accomplishments

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 therapeutics and their use, U.S. provisional patent, **2013**.

TEACHING AND CURRICULUM DEVELOPMENT

University of Minnesota

Courses, seminars, and instructional units taught

1. **Medicinal Agent I** (Phar 6154, Principles of Drug Action), 2004-2009, 12 lecture hours per year, 110 students.
2. ***Medicinal Agent III*** *(Phar 6156, Anticancer Agents)*, 2005-present, 16 lecture hours per year, 110 students.
3. **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, 6 – 10 students.

4. **Vistas in Medicinal Chemistry Research**, (MedC 5495), 2003-current, 1 lecture hour per year, 10 students.
5. **Principles of Medicinal Chemistry** (MedC 8002, DNA and related therapeutics), 2011, 2103, and 2014, 12 lectures each year, 10 students.
6. **Principles of Medicinal Chemistry** (MedC 8001, SAR of nucleosides), 2014, 2 lecture hours each year, 10 students.
7. **Summer Journal Club**, 2005 – 2007, organizing the journal club, 10 hours per year, 60 attendants.
8. **Design of Chemotherapeutic Agents** (MedC 8500), Fall, 2011 and 2013, 18 lecture hours per year.
9. **Natural Medicine** (Phar , kava pharmacokinetics and pharmacodynamics), 2014, 1 lecture hour per year.

Curriculum Development

1. **Summer Journal Club**, 2005 – 2007, organizing the journal club, 10 hours per year, 60 attendants
2. **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
Debela Gemeda	May 2007 – Dec. 2007
Mariam Warsame	Sept. 2007 – Dec. 2007
Maryan 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 – present
Nikhita Yadlapalli	March 2017 – present
Krishna Bhakta	March 2017 – present
Charles Soukup	May 2017 – present
Justin Farley	May 2017 – present
Janel Aslan	May 2017 – present
Jordy Botello	May 2017 – 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

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 – present
Thesis topic: Kava, its efficacy against various diseases, its safety, active constituents, and mechanism of action

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 Wherritt	2005 – 2006
Enver Cagri Izgu	2007 – 2008
Giang Hoang	2008 – 2012
Feng Shao	2009 – 2010
Zhongda Pan	2011 – 2012
Andrew Michel	2012 – 2013

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

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 and visiting scholars 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.

Yi Wang — Oct. 2016 – present
Research topic: investigating the impact of kava on human benefit via LC-MS/MS based analysis

Sreekanth Narayanapillai — Jan. 2013 – Present
Research topic: investigating the in vivo efficacy and mechanisms of various natural and synthetic organic molecules

Kavitha Chandajirikippal — Oct. 2016 – present

Research topic: mechanistic investigation of CXL compounds for their selective cytotoxicity towards drug resistant cancers.

Tengfei Bian April. 2017 – Present

Research topic: investigate calcium regulation by SERCA and other proteins in GUV and in intact cells.

Other Mentoring Activities [including serving as a mentor or member of a mentoring committee for a faculty member, etc.]

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
Andrea Wisniewski	12/13/2012 – 01/23/2013
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

International exchange Ph.D. students

Chunlin Zhuang	12/01/2012 – 11/30/2013
Tengfei Biang	10/01/2013 – 09/30/2014

International visiting professor

Yuesheng Dong	09/01/2013 – 08/31/2014
Xinghua Zhao	03/01/2015 – 02/29/2016

SERVICE AND PUBLIC OUTREACH

Service To The Discipline/Profession/Interdisciplinary Area(s)

Editorial board for peer-reviewed journals

- Madridge Journal of Pharmaceutical Research
- Future Medicinal Chemistry
- Molecules

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

Review panels for external funding agencies, foundations, etc.

• 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

Review panels for internal funding opportunities.

• 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

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 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
- PPPS 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