

Duxin Sun, Ph.D.
J.G. Searle Endowed Professor
(With Tenure)

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Education

- 1998-2002 Ph.D. in Pharmaceutical Sciences
Department of Pharmaceutical Sciences, College of Pharmacy, University of Michigan, Ann Arbor, Michigan
- 1994-1998 Visiting Scholar in Molecular Pharmacology
Department of Pharmacology, University of Pennsylvania (Philadelphia, PA) and Vanderbilt University (Nashville, TN)
- 1989-1992 Master of Pharmacology
School of Pharmacy, Second Military Medical University, Shanghai, China
- 1982-1986 Bachelor of Pharmacy
School of Pharmacy, Second Military Medical University, Shanghai, China

Appointments

- 2017- J.G. Searle Endowed Professor
Department of Pharmaceutical Sciences, College of Pharmacy, The University of Michigan, Ann Arbor, MI 48109
- 2014-2017 William I. Higuchi Collegiate Professor
Department of Pharmaceutical Sciences, College of Pharmacy, The University of Michigan, Ann Arbor, MI 48109
- 2013- Professor
Department of Pharmaceutical Sciences, College of Pharmacy, The University of Michigan, Ann Arbor, MI 48109
Director of Pharmacokinetics Core, College of Pharmacy and Comprehensive Cancer Center, University of Michigan
Member, Interdepartmental Program in Medicinal Chemistry, College of Pharmacy, University of Michigan
Member, Comprehensive Cancer Center, University of Michigan Medical School
Member, Chemical Biology Program, University of Michigan
- 2008-2013 Associate Professor
Department of Pharmaceutical Sciences, College of Pharmacy, The University of Michigan, Ann Arbor, MI 48109
Member, Interdepartmental Program in Medicinal Chemistry, College of Pharmacy
Member, Comprehensive Cancer Center, University of Michigan Medical School
Member, Chemical Biology Program, University of Michigan
- 2003-2008 Assistant Professor
Division of Pharmaceutics, College of Pharmacy, Ohio State University. Columbus, OH 43210

Member, Comprehensive Cancer Center of The Ohio State University
Member, The Ohio State Biochemistry Program (OSBP), Ohio State University
Member, Molecular, Cellular, and Development Biology Program, Ohio State University

- 2002-2003 Research Investigator II
Bristol-Myers Squibb Company, One Squibb Drive, New Brunswick, NJ 08903
- 1994-1998 Senior Research Specialist and Visiting Scholar
Department of Pharmacology, University of Pennsylvania, Philadelphia, PA 19104;
and Vanderbilt University, Nashville, TN 37232 (Same lab in two different universities due to PI's lab move)
- 1990-1994 Lecturer of Pharmacology
School of Pharmacy, Second Military Medical University, 101 Guo He Road,
Shanghai 200433, China
- 1986-1990 Teaching Assistant of Pharmacology
School of Pharmacy, Second Military Medical University, 101 Guo He Road,
Shanghai 200433, China

Current Research Programs

Drug discovery and nanomedicine for cancer therapeutics

1. Breast Cancer Stem Cells and Therapeutics

The goal of this project is to visualize the cancer stem cells hierarchy to answer questions for how heterogeneous breast cancer cells are generated by breast cancer stem cells? How chemotherapy alters heterogeneity by changing breast cancer stem cells? Why chemotherapy can not "cure" cancer? How to identify drugs or targets to eliminate different populations of heterogeneous cancer cells in order to "cure" cancer.

2. Drug Discovery to Treat P53/PTEN Deficient Triple Negative Breast Cancer

Among four types of breast cancers, triple negative breast cancer (TNBC) still lacks treatment options. Triple negative breast cancer (TNBC) exhibits high frequencies of p53 and PTEN genetic aberrations, with 84% and 35%, respectively, which is associated with metastasis, low therapeutic response, and poor prognosis. However, the concurrent p53/PTEN deficiency in TNBC is not actionable due to the lack of molecular targets. The goal of this project is to identify specific therapeutic target for drug discovery to treat P53/PTEN deficient TNBC.

3. Drug Optimization Alters Tissue Targeting, Efficacy and Toxicity

In drug development process, 90% drugs fail from phase I to phase III trials due to lack of efficacy (30-40%), toxicity (30%), poor drug like properties (15-20%), and lack of commercial needs (10%). The goal of this project is to investigate the failure of drug development (lack of efficacy or toxicity) is due to biological potency or tissue targeting. Why modifications in similar structures (with same target) alters tissue targeting, efficacy and toxicity? How to predict or screen tissue targeting to increase success rate of clinical trials in drug discovery? How do drugs distribute in the heterogeneous tumor tissues by MS-Imaging?

4. Nanotechnology for Drug Delivery

More than 90% nanomedicines failed in clinical trials. Some successful nanomedicines may have only compared combination nanomedicine with standard care to standard care alone, without comparison with free drugs (with few exceptions). The goal of this project is to investigate why most of Injectable nanomedicines failed to improve efficacy, but only alter toxicity, and how to design future nanomedicine to enhance the success rate.

5. Nanosatellite (VLN) Mimics Viral-Like Structure to Activate Both T Cell and B Cell Immunity

Most cancer vaccines failed in clinical trials due to the lack of durable long term clinical anticancer efficacy. In contrast, viral-like particle (VLP) vaccines (such as HPV vaccine) are effective to prevent virus infection through activation of B cell immunity in addition to T cell immunity. However, it is very challenging to generate VLP vaccine as anticancer vaccine. The goal of this project is to generate inorganic viral-like nanoparticle to mimic viral like structure as T cell or B cell vaccines.

6. Intubation and Wireless Sampling Device in Gastrointestinal Track For Microbiome Analysis and Drug Product Optimization

Gut microbiome has been shown to regulate immunity, cancer, and metabolic disease. The most gut microbiome is usually analyzed from feces, which is different from microbiome in small intestine. However there is lack of information for GI microbiome in small intestine due to the lack of sampling methods.

In addition, during oral drug product development, in vitro and in vivo drug dissolution needs to be optimized. However, there is lack of data and understanding of dissolution in GI tract for oral drug product development and optimization.

The goal of this project is to develop method by intubation or wireless sampling device to obtain samples from whole GI tract (stomach, duodenum, jejunum, ileum, and colon) for GI microbiome analysis and drug dissolution analysis.

7. Pharmacokinetics Core

Dr. Sun serves as Director of the Pharmacokinetics (PK) Core in the University of Michigan. The Pharmacokinetics (PK) Core has four objectives: (A) To support preclinical pharmacokinetics and metabolism for lead compound selection and dose regimen optimization, which enhances drug discovery & development; (B) To support clinical pharmacokinetics and optimize dose regimen in clinical studies, which supports and increases investigator-initiated clinical trials (phase I and phase II); (C) To increase grants, publications, and patent applications; (D) To train students and postdoctoral fellows with special expertise in DMPK studies.

Current Grants

- 2018-2023 Inhibiting Bcl-2 intestinal regulated intestinal fibrosis
NIH R01 DK-118154-01, PI: Peter Higgins, Co-I: Duxin Sun
- 2018-2023 Targeting NSD1 in leukemia
NIH R01 CA-226759-01-A1, PI: Tomasz Cierpicki, Co-I: Duxin Sun
- 2018-2023 University of Michigan Comprehensive Cancer Center support grant
NIH P30 CA046592-29 PI: Eric Fearon, Co-I: Duxin Sun (PK SR Director)

- 2018-2023 Development of a dual and selective small molecule inhibitor of EGFR and PI3 Kinase to treat BRAF mutant colorectal cancer
NIH R01 CA-220199-01-A1, PI: Judith Leopold, Co-I: Duxin Sun
- 2018-2023 Targeting the menin-MLL complex for new therapeutics
NIH R01 CA-208267-01-A1, PI: Shaomeng Wang, Co-I: Duxin Sun
- 2018-2023 Develop a therapeutic nano-vaccine against head and neck cancer
NIH R01 DE-026728-01-A1, PI: Yu Lei, Co-I: Duxin Sun
- 2016-2019 Tissue distribution and pharmacokinetics of tyrosine kinase inhibitors (TKI)
Celgene Corporation, PI: Duxin Sun
- 2017-2022 Small-molecule MDM2 degraders
NIH R01 CA-219345, PI: Shaomeng Wang, Co-I: Duxin Sun
- 2017-2022 Novel Mcl-1 inhibitors for overcoming therapeutic resistance in colorectal cancer
NIH R01 CA-217141, PI: Zaneta Nikolovska-Coleska, Co-I: Duxin Sun
- 2017-2022 Sputum microbial markers of type 2-low asthma
NIH R01 AI129958, PI: Yvonne Huang, Co-I: Duxin Sun
- 2017-2022 Small-molecule degraders of BET proteins
NIH R01 CA-215758-01, PI: Shaomeng Wang, Co-I: Duxin Sun
- 2017-2022 Development of novel anti-leukemia agents targeting the menin-MLL interaction
NIH R01 CA-160467-06, PI: Jolanta Grembecka, Co-I: Duxin Sun
- 2017-2020 Isozyme-selective ALDH inhibitors for sensitizing ovarian cancer stem-like cells to chemotherapy
NIH R01 CA-214567-01, PI: Scott Larsen, Co-I: Duxin Sun
- 2015-2020 Wireless Pharmaceutical Analysis Device (WPAD) and computational model to determine *in vivo* drug dissolution in GI tract for distinguishing meaningful product differences and ensuring bioequivalence (BE)
FDA HHSF223201510146C, PI: Duxin Sun
- 2016-2021 Targeting the MLL complex in Castration Resistant Prostate Cancer
NIH R01 CA-200660-01-A1, PI: Jolanta Grembecka, Co-I: Duxin Sun
- 2015-2020 ROS-targeted therapy for pancreatic cancer
NIH R01-CA-188252-01-A1, PI: Nouri Neamati, Co-I: Duxin Sun
- 2015-2020 Efficacy of PDI inhibitors in glioblastoma
NIH R01 CA193690-01, PI: Nouri Neamati, Co-I: Duxin Sun
- 2014-2019 SPORE in prostate cancer
NIH 1P50CA186786-01, PI: Arul Chinnaiyan, Co-I: Duxin Sun

Finished Grants

- 2014-2019 Randomized controlled trial to improve oncology nurses' protective equipment use
CDC R01 OH010582-01, PI: Christopher Friese, Co-I Duxin Sun
- 2014-2018 Enhanced Oral Delivery of Low Solubility Drugs Using Cocrystal Design
NIH R01 GM107146-01-A1, PI: Nair Rodriguez-Hornedo, Co-I: Duxin Sun
- 2016-2018 Development of small-molecule degraders of BET proteins for triple-negative breast cancer. The Breast Cancer Research Foundation, PI: Shaomeng Wang, Co-I: Duxin Sun
- 2015-2018 The development of small molecule inhibitors for Gaucher Disease Type 3
NIH UH2-NS-092981-01, UH3-NS-092981-02, PI: James Shayman, Co-I: Duxin Sun
- 2012-2018 University of Michigan Comprehensive Cancer Center support grant.
NIH 2P30CA046592-24, PI: Eric Fearon, Co-I: Duxin Sun (PK Core director)
- 2013-2018 Targeted elimination of cancer stem cells for AML therapy
NIH R01 CA171972-01A1, PI: Yang Liu, Co-I: Duxin Sun
- 2017-2018 Development of small magnetic nanoparticles for cell isolation and DNA detection
IMRA America, Inc., PI: Hongwei Chen, Co-PI: Duxin Sun
- 2014-2018 Inhibition of the Rho/MRTF/SRF pathway as a new treatment for systemic sclerosis
NIH R01 AR066049, PI: Scott D Larsen, Co-I: Duxin Sun
- 2013-2018 Targeting the MLL-WDR5 protein-protein interaction
NIH R01 CA177307-01, PI: Shaomeng Wang, Yali Dou; Co-I: Duxin Sun
- 2014-2018 Discovering Novel Atypical PKC Inhibitors as in vivo Chemical Probes
NIH R01 EY023725, PI: David Antonetti, Co-I: Duxin Sun
- 2016-2017 Pharmacokinetics and tissue distribution of Abraxane
Celgene Corporation, PI: Duxin Sun
- 2015-2017 Drug tumor distribution impacts efficacy of tamoxifen analogs
Celgene Corporation, PI: Duxin Sun
- 2013-2017 Modernization of *in vivo-in vitro* oral bioperformance prediction and assessment
FDA HHSF223201310164C, Co-PI: Gordon Amidon, Co-PI: Duxin Sun
- 2014-2017 Targeting host deubiquitinases for broad spectrum anti-infective therapy
NIH R21/R33 AI102106-03, PI: Mary O'Riordan, Co-I: Duxin Sun
- 2016-2017 Mechanisms of epigenetic regulation of transcription – new targets for cancer therapeutics
University of Michigan MCubed fund, PIs: Duxin Sun, Shaomeng Wang, Thomas Kerppola
- 2016-2016 Altered elimination and metabolism of Abraxane in comparison with taxol in FcRn
knockout and wild-type mice
Celgene Corporation, PI: Duxin Sun

- 2012-2018 Mechanisms of motor neuron toxicity in Kennedy disease
NIH R01 NS055746-06A1, PI: Andrew Lieberman, Co-I: Duxin Sun
- 2015-2017 Menin-MLL Inhibitor Program
Kura Oncology, PI: Jolanta Grembecka, Co-I: Duxin Sun
- 2011-2017 Development of novel anti-leukemia agents targeting the menin-MLL interaction
NIH R01 CA160467-01. PI: Jolanta Grembecka, Co-I: Duxin Sun
- 2016-2016 Development of polymer-coated magnetic nanoparticles for in vitro diagnostics
IMRA America, Inc., PI: Hongwei Chen, Co-PI: Duxin Sun
- 2014-2016 Define and optimize tumor targeting properties to predict preclinical and clinical efficacy of anti-cancer agents
Celgene Corporation, PI: Duxin Sun
- 2013-2016 Investigation of Release Profiles of Bupropion and Pharmacogenomics of Metabolism Enzymes for Bioequivalence of Generic Bupropion Products in Healthy Volunteers
FDA HHSF223201310144C, PI: Duxin Sun
- 2013-2016 Novel Probes for Studying Treatment of CNS-based Lysosomal Storage Diseases
NIH R01 HD076004-01, PI: Scott D Larsen, Co-I: Duxin Sun
- 2012-2016 Potent and Highly Selective D3 Ligands for the Treatment of Cocaine Abuse.
NIH R01 DA032943. PI: Shaomeng Wang. Co-I: Duxin Sun
- 2014-2015 Pharmacokinetics and tumor distribution of different liposomal doxorubicin formulations
Celgene Corporation, PI: Duxin Sun
- 2010-2015 Correlation of mesalamine pharmacokinetics with local availability
FDA HHSF223201000082C, HHSF223201300460A, PI: Duxin Sun
- 2013-2015 Investigation of inequivalence of bupropion hydrochloride extended release tablets: *In vitro* metabolism quantification
FDA HHSF223201310183C, PI: Duxin Sun
- 2014-2015 BET Bromodomain Inhibitors
Oncofusion Therapeutics, 145038, PI: Shaomeng Wang, Co-I: Duxin Sun
- 2012-2014 In vivo proof of efficacy studies for a novel glucosylceramide synthase inhibitor with central nervous system activity
NIH R21 NS079633-01, PI: James Shayman, Co-I: Duxin Sun
- 2010-2015 Menin-MLL Fusion Inhibitor Program
Lymphoma and Leukemia Society. UM347450 /N013134-03. PI: Jolanta Grembecka. Co-I: Duxin Sun
- 2011-2015 Receptor Na/K-ATPase antagonists as novel therapeutics for renal/cardiac diseases
NIH R01 HL109015-01. PI: ZiJian Xie. Co-I: Duxin Sun

- 2013-2014 Drug Discovery to block protein-protein interactions for cancer therapy
University of Michigan MCubed fund, PIs: Duxin Sun, Shaomeng Wang, Yali Dou.
- 2012-2014 Targeting breast cancer stem cells through combined PARP and Hsp90 inhibition
DOD W81XWH-12-1-0147. PI: Suling Liu, Co-I: Duxin Sun
- 2007-2013 An integrated system for both tumor imaging and targeted drug therapy of cancer
NIH R01 CA120023, PI: Duxin Sun.
- 2012-2013 DUB Inhibitors for Treatment of B-cell Malignancies
Lymphoma and Leukemia Society. PI: Nick Donato. Co-I: Duxin Sun
- 2012-2013 CDNM pilot funds for drug discovery (Pharmacokinetics support)
University of Michigan CDNM pilot funds. PI: Rick Neubig, Margaret Gnegy, Haoming Zhang. Co-I: Duxin Sun
- 2011-2013 Characterization, conjugation, and application of laser-generated gold nanoparticles for targeted drug delivery and tumor imaging.
IMRA America Inc. N014096, PI: Duxin Sun
- 2012 Targeting PDGF signaling in traumatic brain Injury. MICHR Pilot RD9.
MICHR, PI: Dan Lawrence. Co-I: Duxin Sun
- 2009-2011 New molecular target and its inhibitors for use against pancreatic cancer
NIH R21 CA143474, PI: Duxin Sun
- 2010-2011 Chaperones and Small Molecules
NIH R01 NS059690-S1, Jason Gestwicki (PI), Duxin Sun (Co-I)
- 2009-2010 Novel inhibitors that disrupt the Hsp90-Cdc37 interaction for use against pancreatic cancer
UM Comprehensive Cancer Center Research Grant UM 314174, PI: Duxin Sun
- 2007-2008 Targeted delivery of microbubble encapsulated fluorophores for cancer imaging
Department of Defense (DOD) Concept Award BC062867, PI: Ronald Xu, Co-I: Duxin Sun
- 2006-2008 Chemical glycobiology of anthracyclines
NIH R01 CA118208, PI: PG Wang, Co-I: Duxin Sun
- 2007-2008 Electrical measurements of gold nanoparticles in biological tissue for cancer detection, Institute for Materials Research (IMR) Interdisciplinary Materials Research Grant of OSU PI: Joseph Heremans, Co-I: Duxin Sun.
- 2005-2007 Targeted prodrug delivery for cancer therapy
Ohio Cancer Research Associate (20020750), New Investigator Award, PI: D Sun

- 2006-2007 An integrated system for tumor detection and targeted drug therapy
American Cancer Society (ACS) Institutional Research Grant (Seed grant) #IRG-67-003-44, PI: Duxin Sun
- 2004-2006 Site-specific activation of geldanamycin prodrug to target Hsp90 in cancer therapy
PhRMA Foundation (20012144), Research Starter Grant for New Investigators, PI: Duxin Sun
- 2005-2006 In vitro cell systems and in vivo animal models to evaluate BA/BE and drug absorption for inhalation drug formulation
FDA HHSF223200530511P, PI: Duxin Sun
- 2004-2005 Effect of excipients on permeability of transporter substrates for BCS class III compounds
FDA D3921804, PI: Duxin Sun
- 2004-2005 Glucose transporters and targeted drug delivery for chemotherapeutic compounds in cancer therapy.
AACP New Investigator Program (NIP, 20020001), PI: Duxin Sun
- 2004-2005 Targeted Drug Delivery for cancer treatment
American Cancer Society (ACS) institutional grant (OSU Comprehensive Cancer Center Seed Grant), PI: Duxin Sun

Honors and Awards

- 2014 Fellow, American Association of Pharmaceutical Scientists
- 2014 Marquis Who's Who in America (2015 Edition)
- 2004 2004 AAPS meritorious Manuscript Award
- 2003 Triumph Award for innovative formulation prototypes and screening to overcome pH-interaction *in vivo* of a weak base compound. Pharmaceutical Research Institute, Bristol-Myers Squibb Company.
- 2002 Highlight Poster Award in 29th International Symposium on Controlled Release of Bioactive Materials. July 20-25, 2002. Seoul, Korea
- 2002 Bristol-Myers Squibb On the Spot Award for establishment of canine absorption model for bioequivalence/bioavailability and formulation strategies studies in Biopharmaceutics R&D
- 2001 CRS Cygnus Graduate Student Award for outstanding work in drug delivery. 28th International Symposium on Controlled Release of Bioactive Materials. June 23-27, 2001. San Diego, CA
- 2001 Poster Award in XXXIII Annual Pharmaceutics Graduate Student Research Meeting (PGSRM), June 14-16, 2001. University of Wisconsin, Madison, Wisconsin
- 2001 AFPE Fellowship Award (American Foundation of Pharmaceutical Education)
- 2000 Fred Lyons Jr. Fellowship Award in the College of Pharmacy, University of Michigan
- 1999 Merck Fellowship Award in the College of Pharmacy, University of Michigan
- 1991 Young Investigator Outstanding Paper Award in the National Conference of Cardiovascular Pharmacology (first place)

Review for Grant Agencies

- 2018 Cancer Biotherapeutics and Development (ZRG1 OTC-E (10)), ad hoc member NIH
- 2018 NCI Omnibus Review R03 and R21 (ZCA1 TCRB-V (J1)), ad hoc member, NIH
- 2018 NCI Cancer Biotherapeutics Development Study Section, ad hoc member, NIH
- 2018 NANO Review panel, ad hoc member, NIH
- 2017 NIBIB Career Development (K) and Conference (R13) Applications panel, ad hoc member, NIH
- 2016 Mentored Career Development Award (K) Applications panel, ad hoc member, NIH
- 2016 NCI Special Emphasis Panel R50 (ZCA1 SRB-V (A1)), ad hoc member, NIH/NCI
- 2016 NCI Omnibus Review R02 and R21 (ZCA1 SRB-V (J1)), ad hoc member, NIH/NCI
- 2015 NCI Omnibus Exploratory (R21) and Small Grants (R03) Program – Cancer Biology (ZCA1 SRB-V (J1)), ad hoc member, NIH/NCI
- 2015 Prevent ToxPharm (ZCA1 TCRB-U (C3) B), ad hoc member, NIH/NCI
- 2014 Cancer Biology 3 study section (NCI Omnibus R21, ZCA1 SRLB-V (M1)), ad hoc member, NIH/NCI
- 2013 Development therapeutics study section, ad hoc member, NIH/NCI
- 2013 Omnibus Exploratory (R21) and Small Grants (R03) Program – Drug Development and Delivery (ZCA1 SRLB-2 (01)), ad hoc member, NIH
- 2013 NCI Omnibus and Cancer Developmental Therapeutics (ZCA1 SRLB-X (M1)), ad hoc member, NIH
- 2012 Developmental Therapeutics/Omnibus Review Committee (ZCA1 SRLB-D(J1)), ad hoc member, NIH
- 2012 Gene and drug delivery study section, ad hoc member, NIH
- 2012 University of Michigan OVRP program, ad hoc member
- 2011 Development therapeutics study section, ad hoc member, NIH/NCI
- 2011 Ohio Cancer Research Associate, Member
- 2011 Cancer Therapeutics (Special Emphasis Panel, ZRG1 OTC-K (05)), ad hoc member
- 2011 Innovative Technology Development (ZCA1 SRLB-Q (M1)), ad hoc member, NIH
- 2010 Health and Technologies Research, Department of Innovation, Italian Ministry of Health, Member, grant review
- 2010 Preclinical pharmacokinetic and pharmacological studies (ZCA1 SRLB-V (C1)), member, NIH
- 2010 Gene and drug delivery study section, ad hoc member, NIH
- 2010 French National Research Agency (JCJC SVSE5), reviewer, France
- 2010 Development of anticancer agents (ZCA1 SELB-D (C1)), ad hoc member, NIH
- 2009 Ohio Cancer Research Associates, Member.
- 2009 Development of anticancer agents SBIR (topic 251), ad hoc member, NIH
- 2008 Cancer Research UK, external grant reviewer
- 2008 Multidisciplinary Research Grant (MRG) Program, North Carolina Biotechnology Center, Science & Technology Development Program
- 2008 Cancer Drug Development and Therapeutics SBIR/STTR Study Section ONC-X (14), ad hoc member, NIH
- 2008 Development of anticancer agents SBIR (topic 251, ZCA1 SRRB-D), ad hoc member, NIH
- 2008 FDA Office of Women’s Health intramural scientific program, member, FDA
- 2007 Cancer Drug Development and Therapeutics SBIR/STTR Study Section, ad hoc member, NIH
- 2007 New Investigators Program for Pharmacy Faculty, AACP, member

- 2006 Xenobiotic and Nutrient Disposition and Action (XNDA) study section, ad hoc member, NIH
- 2006 The FDA Office of Women's health intramural scientific program, member, FDA
- 2005 AIDS therapeutics study section, ad hoc member, NIH
- 2005 Cancer Drug Development and Therapeutics SBIR/STTR study section, ad hoc member, NIH
- 2004 National Cooperative Drug Discovery Groups for Cancer (NCDDG) study section, ad hoc member, NIH

Professional Affiliations

- 2014- American Association for the Advancement of Science (AAAS), member
- 2003- American Association of Cancer Research (AACR), member
- 2003- American Association of Colleges of Pharmacy (AACP), member
- 1998- American Association of Pharmaceutical Scientists (AAPS), member

Professional Association and Agency Service

- 2019- Member, Predoctoral Fellowship Decision Committee, University of Michigan
- 2016- Member, Pharmaceutical Science and Clinical Pharmacology Advisory Committee, US Food and Drug Administration
- 2012 Co-chairs, 47th Arden Conference, March 2012, West Point, New York, NY
- 2011 Co-chairs, roundtable: Current technologies in protein and peptide delivery. Oct. 2011, AAPS Annual Meeting, Washington DC.
- 2011 Co-chairs, sunrise session: miRNA and SiRNA delivery. Oct 2011, AAPS Annual Meeting, Washington DC.
- 2011 Co-Chairs, workshop: Emerging Oral Delivery and Technologies to Enable Biopharmaceutical Performance of BCS II, III and IV Molecules. April, 2011, Baltimore, MD
- 2010 Co-Chairs of a round table, Can nanoparticle be simultaneously used for tumor imaging and targeted drug delivery, 2010 AAPS annual meeting, Nov 2010, New Orleans, LA
- 2011-2012 Chair, Physical Pharmacy and Biopharmaceutics (PPB) Section, AAPS
- 2009-2010 Chair-Elect, Physical Pharmacy and Biopharmaceutics (PPB) Section, AAPS
- 2009- Vice President, Chinese American Pharmaceutical Association (ACPA)
- 2009 Organizing committee for 45th Annual Pharmaceutical Technologies Arden Conference Formulation Strategies for Poorly Soluble Drugs
- 2009 AAPS Meritorious Manuscript Award selection committee
- 2009 AAPS Annual meeting program committee for 2010
- 2009 Co-chairs for two roundtables in 2009 AAPS annual meeting: (1) Latest developments of drug targeting to cancer stem cells. (2) Tumor targeting using nanotechnology-based drug delivery systems.
- 2009 Co-chairs, AAPS Workshop on Evolving Science and Technology in Physical Pharmacy and Biopharmaceutics, May 2009
- 2008 Vice Chair, Physical Pharmacy and Biopharmaceutics (PPB) Section, AAPS
- 2008 Program committee for five symposia in 2008 AAPS annual meeting: (1) Tumor Imaging and Targeted Drug Delivery (sunrise session); (2) The World Within and Beyond P-gp: Do we Underestimate or Overestimate P-gp (roundtable); (3) Prodrug Approaches for Organ Specific Targeted Therapy (roundtable); (4) Rational Drug and Prodrug Design Via Computational Modeling (sunrise session); (5)

- 2007-2008 Transporters as Prodrug Carriers for Oral Drug Delivery (roundtable)
2007 Chair, Prodrug focus group, AAPS
2007 Co-chairs, Tumor-activated prodrug and tumor-targeting technologies roundtable in 2007 AAPS annual meeting
2007 Program committee, Prodrug approaches for site-specific cellular targets roundtable in 2007 AAPS annual meeting
2007 Program committee, BE, BCS and Beyond, AAPS workshop
2006-2007 Chair-elect, Prodrug focus group, AAPS
2005-2007 Prodrug focus group steering committee, AAPS
2003-2006 Sub-chair, AAPS annual meeting abstract review committee (PDD section)
2004 Organizing committee, Advances in biopharmaceutics and oral delivery, University of Michigan.
2003 Co-chairs, Targeted Drug Delivery Symposium in 2003 AAPS Annual Meeting

Journal Editorial Board

AAPS Journal

AAPS Journal Guest Editors (Duxin Sun & Simon Zhou) for special issue: "Revisit Drug Absorption and Elimination in Design and Evaluation of Oral Modified Release Drug Products," November 2016.

Molecular Pharmaceutics

Molecular Pharmaceutics, Guest Editor of theme issue: Nanotheranostics

Theranostics

Scientific Reports

University Committee Service

- 2008- University of Michigan**
2017- U-M Faculty Grievance Panel
2016- Research Resources and Shared Equipment Committee, College of Pharmacy
2016- Graduate Recruitment and Admissions Committee, Department of Pharmaceutical Sciences, College of Pharmacy
2015-2016 Graduate Education Committee, College of Pharmacy
2013-2014 Dean Search Committee, College of Pharmacy
2012-2014 Executive Committee, College of Pharmacy
2012- Core Leadership Team, Center for Discovery of New Medicines
2012-2016 Faculty Search Committee, Department of Clinical, Social, and Administrative Sciences, College of Pharmacy
2012-2016 Adjunct Faculty Appointments Committee, College of Pharmacy, Department of Pharmaceutical Sciences
2012-2016 Strategic Planning and Leadership Committee, Department of Pharmaceutical Sciences
2011-2012 Searle Professorship Search Committee, College of Pharmacy
2010- Operating Committee, Program in Chemical Biology
2009-2014 Faculty Development Committee, College of Pharmacy
2009-2012 Senate Assembly Representative
2009-2011 Academic Standing Committee, College of Pharmacy
- 2003-2008 The Ohio State University**
2003-2007 Strategic Planning Committee, College of Pharmacy

2005-2008 Pharm D. Program Committee, College of Pharmacy
2003-2005 Bachelor of Science of Pharmaceutical Science (BSPS) Program Committee,
College of Pharmacy
2003-2008 Faculty Advisor of AAPS student chapter at the Ohio State University
2003-2008 Faculty Advisor of Biotechnology Focus Group

Teaching

2008- University of Michigan

2019 PharmSci 760, Advanced Pharmacokinetics
2019 PharmSci 718, Biopharmaceutics & Pharmacogenomics
2018 PharmSci 718, Biopharmaceutics & Pharmacogenomics 2017
PharmSci 718, Biopharmaceutics & Pharmacogenomics 2016
PharmSci 700, Biopharmaceutics & Drug Disposition 2016
PharmSci 718, Biopharmaceutics & Pharmacogenomics
2015 PharmSci 563, Biopharmaceutics & Pharmacogenomics
2014 PharmSci 700, Biopharmaceutics & Drug Disposition
2013 PharmSci 464, Pharmacokinetics & Biopharmaceutics
2012 PharmSci 464, Pharmacokinetics & Biopharmaceutics
2012 PharmSci 700, Biopharmaceutics and Drug Disposition
2011 PharmSci 464, Pharmacokinetics & Biopharmaceutics
2011 PharmSci 465, Biopharmaceutics and Pharmacogenomics
2011 PharmSci 702, Pharmaceutical Design, Delivery, and Targeting (PDDT): Biological-
Molecular Concepts in PDDT
2011 ChemBio 602, Critical Analysis in Chemical Biology
2010 PharmSci 700, Biopharmaceutics and Drug Disposition
2010 PharmSci 464, Pharmacokinetics & Biopharmaceutics
2010 BME 321, Bioreaction Engineering and Design
2009 PharmSci 464, Pharmacokinetics & Biopharmaceutics
2009 PharmSci 762, Fundamentals of Drug Delivery
2009 PharmSci 757, Drug Transport
2009 BME 321, Bioreaction Engineering and Design

2003-2008 The Ohio State University

2003-2008 Pharmacy 804, Drug transport
2003-2008 Pharmacy 622, Drug delivery II
2003-2008 Pharmacy 732, Pharmacogenomics
2003-2008 Pharmacy 694, Drug discovery and development
2003-2008 Pharmacy 850, Ph.D student seminar for Pharmaceutics program
2006 OSBP 760, Ph.D. student seminar for Ohio State Biochemistry Program
2007 MCDB 800/890, Ph.D. student seminar for MCDB Program

Current PhD Graduate Students

2014-	Nathan Truchan	Ph.D. student
2015-	Jamie Do	Ph.D. student
2015-	Garrett Johnson	Ph.D. student
2016-	Hongxiang Hu	Ph.D. student
2018-	Duy Luong	Ph.D. student
2019-	Yingzi Bu	Ph.D. student

2019- Luchen Zhang Ph.D. student

Current Postdoctoral Research Fellows, Research Associates, and Visiting Scientists

2011-	Hongwei Chen	Postdoctoral research fellow, 2011-2012; Assistant research scientist, 2012-2018; Research assistant Professor, 2018-
2012-	Bo Wen	Postdoctoral research fellow 2012-2013; Research lab specialist 2013-2019, Assistant Director 2019-
2014-	Miao He	Visiting research investigator, 2013-2018; Research lab specialist associate, 2018-
2014-	Hebao Yuan	Assistant research scientist, 2014-
2015-	Joseph Burnett	Postdoctoral research fellow, 2015-2017; Assistant research scientist, 2017-
2016-	Jeremy Felton	Postdoctoral research fellow, 2016-
2016-	Lipeng Dai	Postdoctoral research fellow, 2016-
2017-	Lu Wang	Postdoctoral research fellow, 2017-
2017-	Mady Traore	Postdoctoral research fellow, 2017-
2017-	Wei Gao	Postdoctoral research fellow, 2017-
2017-	Praveen Kumar	Postdoctoral research fellow, 2017-
2018-	Jizhao Xie	Visiting research scientist, 2018-
2018-	Aleksas Matvekas	Laboratory tech general assoc, 2018-
2018-	Yang Chen	Postdoctoral research fellow, 2018-
2018-	Cai Liu	Postdoctoral research fellow, 2018-
2018-	Krishani Rajanayake	Postdoctoral research fellow, 2018-
2019-	Yudong Song	Postdoctoral research fellow, 2019-
2019-	Ruiting Li	Postdoctoral research fellow, 2019-

Past Ph.D. Graduate Students (Year of graduation, their Current Positions)

2003-2007	Xianhua Cao	Ph.D. 2007, Senior Scientist, Abbott Labs
2003-2007	Lanyan (Lucy) Fang	Ph.D. 2007, Scientist reviewer, FDA
2004-2007	Seth Gibbs	Ph.D. 2008, Senior Scientist, Battelle, Columbus, OH
2005-2010	Tao Zhang	Ph.D. 2010, Assistant Professor, Husson University
2005-2010	Yanyan Li	Ph.D. 2010, Co-advised with Steven Schwartz. Assistant Professor, Montclair State University
2008-2010	Yiqun Jiang	Ph.D. 2010, Thesis research. Associate Professor, Jilin University
2008-2010	Zhenkun Zhu	Ph.D. 2010, Thesis research. Lecturer, Shandong University
2008-2010	Mancang Gu	Ph.D. 2010, Thesis research. Lecturer, Zhejiang Traditional Chinese Medicine University
2006-2011	Yanke Yu	Ph.D. 2011, Senior Scientist, Eisai Co. Ltd
2006-2011	Peng Zou	Ph.D. 2011, Scientist, FDA
2006-2008	Shuwen Yu	Ph.D. 2012, Thesis research. Director of Pharmacy, Shandong University
2009-2011	Yiling Liu	Visiting Ph.D. student for thesis research; Jilin University
2005-2012	Hsiu-Fang (Sarah) Lee	Ph.D. 2012, Project Manager, Trialynx Inc.
2006-2012	Bryan Newman	Ph.D. 2012, FDA
2012-2014	Xiaoqing Ren	Visiting Ph.D. student for thesis research; Fudan

		University
2014	Yue Liu	Visiting Ph.D. student for thesis research; Second Military Medical University
2014	Chun Tao	Visiting Ph.D. student for thesis research; Second Military Medical University
2009-2015	Joseph Burnett	Ph.D. 2015; Assistant research scientist, University of Michigan College of Pharmacy
2010-2015	Jamie Connarn	Ph.D. 2015; Scientist I, Celgene Corporation
2010-2015	Hayley Paholak	Ph.D. 2015; Medical Writer II, MMS Holdings
2015-2016	Xin Luan	Visiting Ph.D. student for thesis research, 2015-2016; postdoctoral research fellow, University of Michigan College of Pharmacy
2011-2016	Rebecca Moody	Ph.D. 2016, Chief Scientific Officer, NanoMedicine Innovation Center
2013-2017	Ila Myers	Ph.D. student, 2013-2017, University of Michigan
2011-2017	Kanokwan (Kate) Sansanaphongpricha	Ph.D. 2017, Researcher, National Science and Technology Development Agency, Thailand
2017-2018	Ling Zhang	Visiting Ph.D. student for thesis research, 2017-2018
2013-2018	Alex Yu	Ph.D. 2018, Johnson and Johnson
2012-2018	Mari Gasparyan	Ph.D. 2018
2012-2018	Chang-Ching (Albert) Lin	Ph.D. 2018, Postdoctoral Researcher, UT Southwestern Medical Center
2017-2019	Ryan Clauson	Ph.D. 2019, Research Scientist, Torigen Pharmaceuticals

Past Postdoctoral Research Fellows, Research Associates, and Visiting Scientists

2019	Cao Yan	Visiting research scientist, 2019-
2019	Langdong Chen	Visiting research scientist, 2019-
2019	Hongjuan Bi	Visiting research scientist, 2019
2015-2019	Yanyan Han	Research associate, 2015-2018, Research Lab specialist intermediate 2018-2019
2017-2019	Inkyung Jung	Postdoctoral research fellow, 2017-2019
2018-2018	Qingshan Chen	Visiting research scientist, 2018
2015-2018	Jinhui Liao	Research associate, 2015-2018
2015-2018	Pan Shu	Postdoctoral research fellow, 2015-2018
2016-2018	Xin Luan	Postdoctoral research fellow, 2016-2018
2014-2018	Miao-Chia Lo	Assistant research scientist, 2014-2018
2014-2018	Mark Koenigsnecht	Postdoctoral research fellow, 2014-2016; Senior research fellow, 2016-2018
2014-2017	Siwei Li	Postdoctoral research fellow, 2014-2017
2015-2017	Feng Li	Postdoctoral research fellow, 2015-2017
2013-2017	Ann Fioritto	Clinical study coordinator, 2013-2017
2016-2017	Nicholas Stevers	Lab technician, 2016-2017
2016-2017	Takahiro Iwao	Visiting research scientist, 2016-2017
2016-2017	Rebecca Moody	Postdoctoral research fellow, 2016-2017
2016	Jinhua He	Visiting research scientist, 2016
2015-2016	Hongwei Guo	Visiting research scientist, 2015-2016
2015-2016	Yongtai Zhang	Visiting research scientist, 2015-2016
2015-2016	Hongyan Zhu	Visiting research scientist, 2015-2016
2015-2016	Jianjun Zou	Visiting research scientist, 2015-2016

2015-2016	Qingfa Tang	Visiting research scientist, 2015-2016
2016	Yanyan Li	Visiting research scientist, 2016
2015-2016	Tao Zhang	Visiting research scientist, 2015-2016
2013-2016	Ruijuan Luo	Research associate, 2013-2016
2015	Anjie Dong	Visiting research scientist, 2015
2014-2015	Fangying Xu	Visiting research scientist, 2014-2015
2014-2015	Jun Liao	Visiting research scientist, 2014-2015
2014-2018	Huixia Zhang	Visiting MS student, 2014-2015; Visiting research scientist, 2015-2018
2011-2015	Ting Zhao	Research associate, 2011-2015
2014-2015	Ying Wang	Visiting research scientist, 2014; Postdoctoral research fellow, 2014-2015
2014-2015	Jiao Yang	Visiting research scientist, 2014-2015
2014	Yanqiang Zhong	Visiting research scientist, 2014
2014	Liang Zhao	Visiting research scientist, 2014
2013-2014	Yi Wei	Research associate, 2013-2014
2013-2014	Feng Ni	Visiting research scientist, 2013-2014
2013-2014	Li Qiu	Visiting research scientist, 2013-2014
2013-2014	Changhong Wang	Visiting research scientist, 2013-2014
2011-2014	Mike Bly	Research lab specialist intermediate, 2011-2013
2013-2014	Meng Lei	Visiting research scientist, 2013-2014
2012-2014	Honglin Ren	Visiting scientist, 2012-2014
2012-2013	Lichao Sun	Postdoctoral research fellow, 2012-2013
2012-2013	Hao Zou	Visiting scientist, 2012-2013
2012-2013	Min Li	Visiting scientist, 2012-2013
2012-2013	Masayuki Ito	Visiting scientist, 2012-2013
2012-2013	Yuki Ichikawa	Visiting scientist, 2012-2013
2010-2013	Xiaoqin Li	Postdoctoral research fellow, 2010-2013
2011-2012	Lei Duan	Visiting scientist, 2011-2012
2011-2011	Hai Zhang	Visiting scientist, 2011
2011-2012	Yasuhiro Tsume	Postdoctoral research fellow, 2011-2012
2010-2011	Yiqun Jiang	Postdoctoral research fellow, 2010-2011
2009-2011	Wenpeng Zhang	Postdoctoral research fellow, 2010-11
2009-2010	Young Ho Seo	Postdoctoral research fellow, 2010-11
2007-2008	Bin Wang	Postdoctoral research fellow, 2007-2008
2006-2007	Huifei Cui	Visiting scholar, 2006-2007
2004-2006	Guisheng Zhang	Postdoctoral research fellow, 2005-2006
2003-2005	Hao Cheng	Postdoctoral research fellow, 2003-2005

Master Students and Undergraduate Students for Thesis Research

2003-2005	Heather Miller (MS)	MS, 2003-2005, Ohio State University
2005	Josephine Aimiwu (BS)	Honor thesis 2005, Ohio State University
2005-2007	Robert Battisti (BS)	Honor thesis 2005-2007, Ohio State University
2010	Anna Jenks (BS)	Research credit, 2010, University of Michigan
2011	Maya Kalyan (BS)	Research credit, 2011, University of Michigan
2011	Aditya Bharadwaj (BS)	Research credit, 2011, University of Michigan
2011	Jimmy Li (BS)	Summer Research, 2011, University of Michigan
2011	Vivian Pang (BS)	Research credit, 2011, Eastern Michigan University

2011	Neha Kaushal (MS)	Research credit, 2011, University of Michigan
2012	Jian Zhong (BS)	Summer Research, Xian Jiao Tong University
2012	Jiwan Gurung (MS)	Visiting student, 2012, University of Bath, UK
2013-2015	Nicholas Stevers	Undergraduate student research assistant, 2013-2015
2013-2014	Sara Brown	Undergraduate student research assistant, 2013-2014
2014-2015	Huixia Zhang	Visiting MS student, 2014-2015
2019	Rachel O'Rourke	Research Credit, 2019, University of Michigan

Pharm. D. Students for Lab Research

2019	Manali Sawant	Pharm.D. student, 2019
2019	Xin Ju	Pharm.D. student, 2019
2019	Mery Vet George De la Rosa	Pharm.D. student, 2019
2018	Kristen Hong	Pharm.D. student, 2018
2018	Cameron White	Pharm.D. student, 2018
2018	Junius Thomas	Pharm.D. student, 2018-
2018	Xiao Liu	Pharm.D. student, 2018-
2018	Andrew Willmer	Pharm.D. student, 2018-
2018	Emily Makowski	Pharm.D. student, 2018
2017	Jung Won Kwon	Pharm.D. student, 2017
2016-2017	Alyssa Loecher	Pharm.D. student, 2016-2017
2013	Khoa Nguyen	Pharm.D. student, 2013
2012	Hsiao Ng	Pharm.D. student, 2012
2005	Nancy Pham	Pharm.D. student, 2005
2003-2006	Sulk Chan	Pharm.D. student, 2003-2006

Graduate Student Thesis Committe

2003	Liang Zhao	Ph.D. 2003, Division of Pharmaceutics, College of Pharmacy, OSU
2003	Minoli Perera	Ph.D. 2003, Division of Pharmaceutics, College of Pharmacy, OSU
2004	Jongham Kim	Ph.D. 2004, Division of Pharmaceutics, College of Pharmacy, OSU
2004	Jiyun (Sunny) Chen	Ph.D. 2004, Division of Pharmaceutics, College of Pharmacy, OSU
2004	Adam Ogden	Ph.D. 2004, Division of Pharmaceutics, College of Pharmacy, OSU
2004	Greg Lyness	Ph.D. 2004, Division of Pharmaceutics, College of Pharmacy, OSU
2004	Scott Fisher	MS, 2004, Division of Pharmaceutics, College of Pharmacy, OSU
2005	Eun Joo Hurh	Ph.D. 2005, Division of Pharmaceutics, College of Pharmacy, OSU
2005	Jun Yang	Ph.D. 2005, Division of Pharmaceutics, College of Pharmacy, OSU
2005	Casey Bohl	Ph.D. 2005, Division of Pharmaceutics, College of Pharmacy, OSU
2005	Na Guan	MS, 2005, Division of Pharmaceutics, College of Pharmacy, OSU

2006	Yan Xin	Ph.D. 2006, Division of Pharmaceutics, College of Pharmacy, OSU
2006	Dan Lu	Ph.D. 2006, Division of Pharmaceutics, College of Pharmacy, OSU
2006	Jing Song	Ph.D. 2006, Department of Microbiology, Shandong University
2006	Xiaogang Pan	Ph.D. 2006, College of Pharmacy, OSU
2006	Ju-Ping Lai	Ph.D. candidate, 2006, College of Pharmacy, OSU
2006-2008	Qing Liu	Ph.D. candidate, 2006, College of Pharmacy, OSU
2007	Weiping Ye	Ph.D. 2007, College of Veterinary Medicine, OSU
2006-2008	Jacqqeline Lieblein	Ph.D. candidate, 2006, OSBP, OSU
2007-2008	Jianning Yang	Ph.D. candidate, 2007, College of Pharmacy, OSU
2007-2008	Liuqing Yang	Ph.D. candidate, 2007, College of Pharmacy, OSU
2007-2008	Robbie Kidd	Ph.D. candidate, 2007, College of Pharmacy, OSU
2007	Kimberly N. Becker	Undergraduate honors Thesis, 2007, College of Pharmacy, OSU
2006-2008	Ran Zhao	Ph.D. candidate, 2006, OSBP, OSU
2007-2008	Ling Cen	Ph.D. 2007, OSBP, OSU
2007	Jie Shen	Ph.D. 2007, Chemistry, OSU
2007-2008	Jian Yang	Ph.D. candidate, 2007, Medicinal Chem, College of Pharmacy, OSU)
2008	Xiaojuan Yang	Ph.D. candidate, 2008, Pharmaceutics, College of Pharmacy, OSU
2008	Amada Jones	Ph.D. candidate, 2008, Pharmaceutics, College of Pharmacy, OSU
2008	Sunjoo Ahn	Ph.D. candidate, 2008, Pharmaceutics, College of Pharmacy, OSU
2008	Jackie Ji	Ph.D. candidate, 2008, Pharmaceutics, College of Pharmacy, OSU
2008	Chien-Ming Li	Ph.D. candidate, 2008, Pharmaceutics, College of Pharmacy, OSU
2008-2010	Shu Pei Wu	Ph.D. candidate, 2008, Pharm Sciences, College of Pharmacy, UM
2009	Kefeng Sun	Ph.D. candidate, 2009, Pharm Sciences, College of Pharmacy, UM
2009	Shweta Urva	External reviewer of PhD dissertation, School of Pharmacy and Pharmaceutical Sciences, University at Buffalo, 2009
2009	Bei Yang	Ph.D. candidate, 2009, Pharm Sciences, College of Pharmacy, UM
2009-	Maria Posada	Ph.D. candidate, 2009, Pharm Sciences, College of Pharmacy, UM
2009	Kyoung Ah Min	Ph.D. candidate, 2009, Pharm Sciences, College of Pharmacy, UM
2009	Lily Roy	Ph.D. candidate, 2009, Pharm Sciences, College of Pharmacy, UM
2009-2011	Cara Hartz	Ph.D. candidate, 2009, Pharm Sciences, College of Pharmacy, UM
2009-2011	Hugo Fung	Ph.D. candidate, 2010, Chemical Biology, UM

2010-2015	Oluseyi Adeniyi	Ph.D. 2015, Pharm Sciences, College of Pharmacy, UM
2010	Anne Gillies	Ph.D. candidate, 2010, Chemical Biology, UM
2010	Fardokht Abulwerdi	Ph.D. candidate, 2010, Chemical Biology, UM
2010	Yehua Xie	Ph.D. candidate, 2011, Pharm Sciences, College of Pharmacy, UM
2012	Sharan Shrinivasan	Ph.D. candidate, 2012, Chemical Biology, UM
2012-2015	Brian Larsen	Ph.D. 2015, Chemical Biology, UM
2012-2016	Xiaomei Chen	Ph.D. 2016, Pharm Sciences, College of Pharmacy, UM
2013-2016	Ahmed Mady	Ph.D. 2016, Med Chem, Medical Ctr., UM
2013	Max Mazzara	Ph.D. candidate, 2013, Pharm Sciences, UM
2013-2015	Yongjun Hu	Ph.D. 2015, Pharm Sciences, College of Pharmacy, UM
2013-2016	Fengjuan Cao	Ph.D. 2016, Pharm Sciences, UM
2013-2017	Stephanie Gates	Ph.D. 2017, Chemical Biology, UM
2013	Chris Holt	Ph.D. candidate, 2013, Med Chem, UM
2014-2017	Rui Kuai	Ph.D. 2017, Pharm Sciences, UM
2014-2017	Morgan Giles	Ph.D. 2017, Pharm Sciences, UM
2014-2017	Xiaoxing Wang	Ph.D. 2017, Pharm Sciences, UM
2014-2018	James Song	Ph.D. candidate, 2014, Chemical Biology, UM
2014-2017	Jae Min Shin	D.D.S./Ph.D. 2017, School of Dentistry, UM
2015-	Shuai Hu	Ph.D. candidate, 2015, Med Chem, UM
2015-2018	Zhilin Chen	Ph.D. candidate, 2015, Pharm Sciences, UM
2015-2019	Daniel Epling	Ph.D. candidate, 2015, Pharm Sciences, UM
2015	Chengcheng Zhang	Ph.D. candidate, 2015, Chemistry, UM
2015-	Dan Li	Ph.D. candidate, 2015, Pharm Sciences, UM
2015-	Nicholas Waltz	Ph.D. candidate, 2015, Pharm Sciences, UM
2015-2019	Yuchen Fan	Ph.D. candidate, 2015, Pharm Sciences, UM
2015-2019	Patrick Sinko	Ph.D. candidate, 2015, Pharm Sciences, UM
2015-2016	Joseph Labuz	Ph.D. 2016, Biomedical Engineering, College of Engineering, UM
2015-2017	Yu Sui	Ph.D. 2017, EECS, College of Engineering, UM
2016-	Sang Yeop Kim	Ph.D. candidate, 2016, Pharm Sciences, UM
2016-2018	Mikhail Murashov	Ph.D. candidate, 2016, Pharm Sciences, UM
2016-	Lindsay Scheetz	Ph.D. candidate, 2016, Pharm Sciences, UM
2016-	Lindsey Drake	Ph.D. candidate, 2016, Pharm Sciences, UM
2016	David Mertz	Ph.D. candidate, 2016, Biomedical Engineering, College of Engineering, UM
2016-2019	Karson Kump	Ph.D. candidate, 2016, Chemical Biology, UM
2017-	Deanna Montgomery	Ph.D. candidate, 2017, Med Chem, UM
2017-	Brian Thompson	Ph.D. candidate, 2017, Pharm Sciences, UM
2017-	Chang Lee	Ph.D. candidate, Chemistry, LSA, UM
2018-	Minzhi Yu	Ph.D. student, Pharm Sciences, UM
2018-	Xiaoqi Sun	Ph.D. student, Pharm Sciences, UM
2018-	Matt Schnizlein	Ph.D. student, Michigan Medicine, UM
2017-2018	Jiqing Jiang	Ph.D. 2018, College of Engineering, UM
2018-	Dan Li	Ph.D. 2018, Pharm Sciences, UM
2018-	James Song	Ph.D. 2018, Chemical Biology, UM

2019- Jingcheng Xiao Ph.D. 2019, Pharm Sciences, UM

High School Students for Summer Research

2011-2012	Yuxuan Chen	Summer Research
2012	Jimmy Li	Summer Research
2012	Connie Yang	Summer Research

Patents

Issued

1. Jolanta Grembecka, Tomasz Cierpicki, Dmitry Borkin, Jonathan Pollack, Hongzhi Miao, Duxin Sun, Liansheng Li, Tao Wu, Jun Feng, Pingda Ren, Yi Liu. *Thienopyrimidine and thienopyridine compounds and methods of use thereof*. US patent application 15/509,989 filed 3/9/2017. US patent number 10246464 issued 4/2/2019.
2. Scott D. Larsen, Akira Abe, Liming Shu, Michael William Wilson, Richard F. Keep, Duxin Sun, James A. Shayman. *Glucosylceramide synthase inhibitors and therapeutic methods using the same*. Filed for US provisional patent 2015; US patent application 15/546,320 filed 7/26/2017. US patent number 10202340 issued 2/12/2019.
3. Vishwanath Subramaniam, Joseph West, Jennifer McFerran-Brock, Emily Sequin, Duxin Sun, Peng Zou, Travis Hamilton Jones. *Electromagnetic system and method*. US Patent application 13/210,293 filed 8/15/2011; US patent application 14/257,200 filed 4/21/2014. US patent number 9844347 issued 12/19/2017.
4. Shaomeng Wang, Xu Ran, Yujun Zhao, Chao-Yie Yang, Liu Liu, Longchuan Bai, Donna McEachern, Jeanne Stuckey, Jennifer Lynn Meagher, Duxin Sun, Xiaoqin Li, Bing Zhou, Hacer Karatas, Ruijuan Luo, Arul Chinnaiyan, Irfan A. Asangani. *BET bromodomain inhibitors and therapeutic methods using the same*. US patent number 9675697 issued 6/14/2017. US patent application 15/619,671 filed 6/12/2017.
5. Shaomeng Wang, Yujun Zhao, Bing Zhao, Angelo Aguilar, Liu Liu, Longchuan Bai, Donna McEachern, Duxin Sun, Bo Wen, Ruijuan Luo, Ting Zhao, Arul Chinnaiyan, Irfan A. Asangani, Jeanne Stuckey, Jennifer Lynn Meagher, and Xu Ran. *9H-pyrimido[4,5-B]indoles and related analogs as BET bromodomain inhibitors*. US patent number 9580430 issued 2/28/2017.
6. Hongwei Chen and Duxin Sun. *Photothermal therapy using magnetic nanoparticles*. US patent number 9533045 issued 1/3/2017.
7. Duxin Sun, Hongwei Chen, Wei Qian, Yong Che, Masayuki Ito, Hayley Paholak, Kanokwan Sansanaphongpricha. *Conjugated gold nanoparticles*. US patent number 9234078 issued 1/12/2016. US patent number 9587071 issued 3/7/17.
8. Jolanta Grembecka, Tomasz Cierpicki, Dmitry Borkin, Jay L. Hess, Duxin Sun, Xiaoqin Li. *Compositions comprising thienopyrimidine and thienopyridine compounds and methods of use thereof*. US patent number 9216693 issued 12/22/2015. US patent number 9505781 issued 11/29/2016. US patent number 9505782 issued 11/29/2016.
9. Shaomeng Wang, Jianfang Chen, Donna McEachern, Longchuan Bai, Liu Liu, Duxin Sun,

Xiaoqin Li, Angelo Aguilar. *BCL-2/BCL-XL Inhibitors and therapeutic methods using the same*.

US patent number 9096625 issued 7/15/2015.

US patent number 9403856 issued 8/2/2016.

10. Shaomeng Wang, Haibin Zhou, Jianfang Chen, Angelo Aguilar, Jennifer Meagher, Duxin Sun, Chao-Yie Yang, Liu Liu, Longchuan Bai, Donna J. McEachern, Jeanne A. Stuckey-Cupp, Xiaoqin Li. *BCL-2/BCL-XL Inhibitors and therapeutic methods using the same*.
US patent number 8691184 issued 4/8/2014.
11. Shaomeng Wang, Shanghai Yu, Wei Sun, Sanjeev Kumar Shangary, Duxin Sun, Peng Zou, Donna McEachern, Yujun Zhao. *Spiro-oxindole MDM2 antagonists*.
US patent number 9079913 issued 6/24/2015.
US patent number 8877796 issued 11/4/2014.
US patent number 8518984 issued 8/27/2013.
12. Guisheng Zhang, Lanyan Fang, Peng George Wang, Duxin Sun. *Multidrug resistant anticancer anthracyclines*.
US patent number 7737123 issued 6/15/2010.

Submitted

13. Duxin Sun, Yogesh Gianchandani, Tao Li. *Sampling device for drug development and diagnosis of gastric-intestinal diseases*. Filed for US provisional patent 1/2/2018.
14. Yu Lei, Yee Sun Tan, Kanokwan Sansanaphongpricha, Duxin Sun, Hongxiang Hu. *Complexes for delivery of type 1 interferon agonists and antigenic peptides*. Filed for US provisional patent 6/5/2017.

Peer-Reviewed Publications

- 1 Kahl DJ, Hutchings KM, Lisabeth EM, Haak AJ, Leipprandt JR, Dexheimer T, Khanna D, Tsou PS, Campbell PL, Fox DA, Wen B, **Sun D**, Bailie M, Neubig RR, Larsen SD. 5-Aryl-1,3,4-oxadiazol-2-ylthioalkanoic Acids: A Highly Potent New Class of Inhibitors of Rho/Myocardin-Related Transcription Factor (MRTF)/Serum Response Factor (SRF)-Mediated Gene Transcription as Potential Antifibrotic Agents for Scleroderma. *J Med Chem*. 2019 Apr 18. [Epub ahead of print] PMID:30951312.
- 2 Dai W, Samanta S, Xue D, Petrunak EM, Stuckey JA, Han Y, **Sun D**, Wu Y, Neamati N. Structure-Based Design of N-(5-Phenylthiazol-2-yl) acrylamides as Novel and Potent Glutathione S-Transferase Omega 1 Inhibitors. 2019 Mar 28;62(6):30688-3087. PMID: 30735370.
- 3 Seekatz AM, Schnizlein MK, Koenigsknecht MJ, Baker JR, Hasler WL, Bleske BE, Young VB, **Sun D**. Spatial and Temporal Analysis of the Stomach and Small-Intestinal Microbiota in Fasted Healthy Humans. *mSphere*. 2019 Mar 13;4(2). PMID: 30867328.
- 4 Baker JR, Dickens JR, Koenigsknecht M, Frances A, Lee AA, Shedden KA, Brasseur JG, Amidon GL, **Sun D**, Hasler WL. Propagation Characteristics of Fasting Duodeno-Jejunal Contractions in Healthy Controls Measured by Clustered Closely-spaced Manometric Sensors. *Journal Neurogastroenterol Motility*. 2019 Jan 31;25(1):100-112. PMID: 30646481.

- 5 Sun L, Yuan H, Burnett J, Gasparyan M, Zhang Y, Zhang F, Yang Z, Ran Y, **Sun D**. MEOX1 Promotes Tumor Progression and Predicts Poor Prognosis in Human Non-Small-Cell Lung Cancer. *International Journal of Medical Sciences*. 2019 Jan 1;16(1):68-74. PMID: 30662330.
- 6 Paixao P, Bermejo M, Hens B, Tsume Y, Dickens J, Shedden K, Salehi N, Koenigsnecht MJ, Baker JR, Hasler WL, Lionberger R, Fan J, Wysocki J, Wen B, Lee A, Frances A, Amidon GE, Yu A, Benninghoff G, Lobenberg R, Talattof A, **Sun D**, Amidon GL. Linking the Gastrointestinal Behavior of Ibuprofen with the Systemic Exposure between and within Humans-Part 2: Fed State. *Molecular Pharmceutics*. 2018 Dec 3;15(12):5468-5478. PMID: 30417648.
- 7 Bermejo M, Paixao P, Hens B, Tsume Y, Koenigsnecht MJ, Baker JR, Hasler WL, Lionberger R, Fan J, Dickens J, Shedden K, Wen B, Wysocki J, Lobenberg R, Lee A, Frances A, Amidon GE, Yu A, Salehi N, Talattof A, Benninghoff G, **Sun D**, Kuminek G, Cavanagh KL, Rodriguez-Hornedo N, Amidon GL. Linking the Gastrointestinal Behavior of Iburprofen with the Systemic Exposure between and within Humans-Part 1: Fasted State Conditions. *Molecular Pharmaceutics*. 2018 Dec 3;15(12):5454-5467. PMID: 30372084.
- 8 Li YF, Zhang C, Zhou S, He M, Zhang H, Chen N, Li F, Luan X, Pai M, Yuan H, **Sun D**, Li Y. Species difference in paclitaxel disposition correlated with poor pharmacological efficacy translation from mice to humans. *Clinical Pharmacology*. 2018 Nov 8;10:165-174. PMID: 30519122.
- 9 Yu J, Chen J, Zhao H, Gao J, Li Y, Li Y, Xue J, Dahan A, **Sun D**, Zhang G, Zhang H. Integrative proteomics and metabolomics analysis reveals the toxicity of cationic liposomes to human normal hepatocyte cell line L02. *Mol Omics*. 2018 Oct 8;14(5):362-272. PMID: 30247494.
- 10 Li F, Zhang H, He M, Liao J, Chen N, Li Y, Zhou S, Palmisano M, Yu A, Pai MP, **Sun D**. Different nanoformulations alter the tissue distribution of paclitaxel, which aligns with reported distinct efficacy and safety profiles. *Molecular Pharmaceutics*. 2018 Oct 1;15(10):4505-4516 [Epub ahead of print] PMID: 30180593.
- 11 Huddle BC, Grimley E, Buchman CD, Chtcherbinine M, Debnath B, Mehta P, Yang K, Morgan CA, Li S, Felton J, **Sun D**, Mehta G, Neamati N, Buchanovich RJ, Hurley TD, Larsen SD. Structure-based optimization of a novel class of aldehyde dehydrogenase 1A (ALDH1A) subfamily-selective inhibitors as potential adjuncts to ovarian cancer chemotherapy. *J Med Chem*. 2018 Sep 28. [Epub ahead of print] PMID: 30221940.
- 12 Lin CC, Lo MC, Moody R, Jiang H, Harouaka R, Stevers N, Tinsley S, Gasparyan M, Wicha M, **Sun D**. Targeting LRP8 inhibits breast cancer stem cells in triple-negative breast cancer. *Cancer Lett*. 2018 Sep 15;438:165-173. [Epub ahead of print] PMID: 30227220.
- 13 Tsume Y, Patel S, Fotaki N, Bergstrom C, Amidon GL, Brasseur JG, Mudie DM, **Sun D**, Bermejo M, Gao P, Zhu W, Sperry DC, Vertzoni M, Parrott N, Lionberger R, Kambayashi A, Hermans A, Lu X, Amidon GE. In vivo predictive dissolution and simulation workshop report: facilitating the development of oral drug formulation and the prediction of oral bioperformance. *AAPS Journal*. 2018 Sep 6;20(6):100. PMID: 30191341.
- 14 Paixao P, Bermejo M, Hens B, Tsume Y, Dickens J, Shedden K, Salehi N, Koenigsnecht MJ, Baker JR, Hasler WL, Lionberger R, Fan J, Wysocki J, Wen B, Lee A, Frances A, Amidon GE, Yu A, Benninghoff G, Lobenberg R, Talattof A, **Sun D**, Amidon GL. Gastric Emptying and intestinal appearance of nonabsorbable drugs phenol red and paromomycin in human subjects: A multi-compartment stomach approach. *Eur J Pharm Biopharm*. 2018 Aug;129:162-174. PMID:29857136.

- 15 Zhao Y, Zhou B, Bai L, Liu L, Yang CY, Meagher JL, Stuckey JA, McEachern D, Przybranowski S, Wang M, Ran X, Aguilar A, Hu Y, Kampf JW, Li X, Zhao T, Li S, Wen B, **Sun D**, Wang S. Structure-Based Discover of CF53 as a Potent and Orally Bioavailable Bromodomain and extra-Terminal (BET) Bromodomain Inhibitor. *J Med Chem*. 2018 Jul 26;61(14):6110-6120. PMID: 30015487.
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- 78 Yanyan Li, Tao Zhang, Steven J. Schwartz, and **Duxin Sun**. EGCG Inhibits Hsp90 Function by Impairing Hsp90 Association with Cochaperones in Pancreatic Cancer Cells. AACR Annual meeting , Denver, CO, April 2009
- 79 Tao Zhang, Yanyan Li, and **Duxin Sun**. Combination of Hsp90 inhibitors and MEK Inhibitors abrogates ERK Activation in Pancreatic Cancer Cells. AACR Annual meeting , Denver, CO, April 2009
- 80 Sears, R. Bryan; Turro, Claudia; Heremans, Joseph; **Sun, Duxin**; Martin, Edward. Development of An Intra-Operative Probe for near-IR Detection of Occult Tissue. Abstracts, 40th Central Regional Meeting of the American Chemical Society, Columbus, OH, United States, June 10-14 (2008), CRM-306.
- 81 Ronald Xu, Jeff Xu, Joseph Ewing, Bei Wang, **Duxin Sun**, Stephen Povoski, Edward Martin Jr. Development of indocyanine green encapsulated microbubbles for dynamic imaging of breast cancer. DOD Breast cancer program Era of Hope meeting, Baltimore, Maryland, June, 2008
- 82 Yanke Yu and **Duxin Sun**. Withaferin A that inhibits Hsp90 by disrupting Hsp90-Cdc37 interaction against pancreatic cancer cells. AAPS Annual Meeting, Atlanta, GA, November 2008
- 83 Peng Zou, Jeff Xu, Anna Wang, Stephen P. Povoski, Edward W Martin, Jr, Ronald Xu, and **Duxin Sun**. Near-Infrared Fluorescent Labeled Anti-TAG-72 Antibodies for Tumor Imaging in Colorectal Cancer Xenograft Mice. AAPS Annual Meeting, Atlanta, GA, November 2008
- 84 Jeff Xu, Peng Zou, **Duxin Sun**, Edward Martin, Stephen Povoski, Ronald Xu. Multimodal, intraoperative cancer imaging with microbubbles and antibody-fluorophore conjugates. BMES Annual Fall Meeting, St Louis, 2008
- 85 Chen, Wenlan; Zhang, Guisheng; Zhu, Lizhi; Fang, Lanyan; Cao, Xianhua; Kedenburg, James; Shen, Jie; **Sun, Duxin**; Wang, Peng George. Uncommon sugars and their conjugates to natural products. ACS Symposium Series (2007), 960(Frontiers in Modern Carbohydrate Chemistry), 15-33.
- 86 Tao Zhang, Adel Hamza, Xianhua Cao, Bing Wang, Shuwen Yu, Chang-Guo Zhan, **Duxin Sun**. A Novel Hsp90 inhibitor disrupts Hsp90-Cdc37 complex for pancreatic cancer therapy. AAPS Annual Meeting, San Diego, CA, November 2007
- 87 Lanyan Fang, Yanqiang Zhong, Ming Yang, Kenneth K. Chan, Edward T Martin Jr, and **Duxin Sun**. *In Vivo* Fluorescent Imaging for Antibody-Directed Enzyme Prodrug Therapy (ADEPT) and Tumor Detection Using HuCC49 Δ CH2- β -galactosidase Conjugate. AAPS Annual Meeting, San Diego, CA, November 2007
- 88 Xianhua Cao, Mark Bloomston, Guang Jia, Wendy L. Frankel, Tao Zhang, Nathan Hall, Hao Cheng, Michael Knopp, and **Duxin Sun**. Simultaneously Targeting Hypoxic Cancer

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- 90 Lanyan Fang, **Duxin Sun**. Predictive physiological based pharmacokinetic (PBPK) analysis for antibody directed enzyme prodrug therapy (ADEPT). AAPS Annual Meeting, San Diego, CA, November 2007
- 91 Seth Gibbs, Changgong Liu, Mark Bloomston, Lanyan Fang, Peng George Wang, Carlo Croce, **Duxin Sun**. miR-221 and miR-222 regulation of Kit protein provides a novel mechanism for drug resistance in leukemia. AAPS Annual Meeting, San Diego, CA, November 2007
- 92 Guang Jia, Xianhua Cao, Peter Wassenaar, Ming Yang, Regina M Koch, Steffen Sammet, Hao Cheng, Tao Zhang, Petra Schmalbrock, **Duxin Sun**, Michael V Knopp. MR Imaging of Pancreatic Cancer in a Mouse Model using a Clinical 3T Scanner. ISMRM MR of Cancer Study Group Workshop: Frontiers in Metabolic, Molecular and Clinical Imaging. Oct 2006, Pocono Manor, PA, USA
- 93 Shen, Jie; Cao, Xianhua; **Sun, Duxin**; Wang, Peng George. Synthesis of geldanamycin (GA)-galactose ADEPT prodrug. 232nd ACS National Meeting, San Francisco, CA, United States, Sept. 10-14, 2006 (2006)
- 94 Abdul Rana, Xianhua Cao, **Duxin Sun**, Ronald Xu. Monitoring Oxygen Dynamics During Pressure Induced Ischemia on Cancer Xenograft Models. 31st International Conference on Infrared and Millimeter Waves and 14th International Conference on Terahertz Electronics. September 18-22, 2006, Shanghai ,China
- 95 Bo Qiang, Xuehai Zhu, Xianhua Cao, Guanglong He, **Duxin Sun**, Ronald Xu. Development of a Multi-modal Sensor for in vivo Monitoring of Tumor Oxygen Dynamics. 31st International Conference on Infrared and Millimeter Waves and 14th International Conference on Terahertz Electronics. September 18-22, 2006, Shanghai, China
- 96 L. Fang, R. Battisti, H. Cheng, E. Martin, K. Chan, P. Wang, **D. Sun**. Enzyme Specific Activation of Geldanamycin Prodrugs Using Humanized HuCC49deltaCH2-beta-galactosidase Conjugates. AAPS Annual Meeting, San Antonio, TX, October 2006
- 97 L. Fang, N. Holford, X. Cao, G. Hinkle, J. Xiao, S. Gibbs, J. Dalton, K. Chan, E. Martin, **D. Sun**. Application of Bayesian Estimation to forecast time of Surgical Exploration using RadiolmmunoGuided Surgery (RIGS). AAPS Annual Meeting, San Antonio, TX, October 2006
- 98 Xianhua Cao, Seth Gibbs, Lanyan Fang, Heather A. Miller, Christopher P. Landowski, Ho-Chul Shin, Hans Lennernas, Yanqing Zhong, Gordon L. Amidon, Lawrence X. Yu, and **Duxin Sun**. Why Is It Challenging To Predict Intestinal Drug Absorption And Oral Bioavailability In Human Using Rat Model. AAPS Annual Meeting, San Antonio, TX, October 2006.
- 99 Xianhua Cao, Lanyan Fang, Seth Gibbs, Ying Huang, Zunyan Dai, Ping Wen, Xincheng Zheng, Wolfgang Sadee, and **Duxin Sun**. Glucose uptake inhibitor sensitizes cancer cells to daunorubicin and overcomes drug resistance in hypoxia. Gibbs S, AAPS Annual Meeting, San Antonio, TX, October 2006.
- 100 Seth Gibbs, Lawrence X Yu, and **Duxin Sun**. In vitro cell systems to evaluate and predict drug absorption from the pulmonary system. AAPS Annual Meeting, San Antonio, TX, October 2006.

- 101 Seth Gibbs, Jie Shen, Dongning Lu, Lanyan Fang, Guisheng Zhang, Peng G. Wang, **Duxin Sun**. Nitric oxide helps overcome p-gp-associated daunorubicin resistance. AAPS Annual Meeting, San Antonio, TX, October 2006.
- 102 Fang L Martin Jr. ED, **Sun D**. Population pharmacokinetics of HuCC49 Δ CH2, a novel monoclonal antibody for tumor targeting. AAPS Annual Meeting, Nashville, TN, November 2005.
- 103 Lanyan Fang, Guisheng Zhang, Xincheng Zheng, Jim J, Xiao, Peng George Wang, and **Duxin Sun**. Discovery of a daunorubicin analogue that exhibits potent antitumor activity and overcomes MDR-mediated drug resistance. AAPS Annual Meeting, Nashville, TN, November 2005.
- 104 Xianhua Cao, Lawrence X. Yu, Catalin Barbaciru, Christopher P. Landowski, Ho-Chul Shin, Gordon L. Amidon, and **Duxin Sun**. Permeability Dominates In Vivo Intestinal Absorption of P-gp Substrate with High Solubility and High Permeability. AAPS Annual Meeting, Nashville, TN, November 2005.
- 105 Xianhua Cao, Ping Wen, Zunyan Dai, Ying Huang, Edward w. Martin Jr, Peng George Wang, Wolfgang Sadee, and **Duxin Sun**. Expression of GLUT1 in tumors promotes cancer cell survival. AACR Annual meeting, Anaheim, CA, April 2005
- 106 Jim J Xiao, Xianhua Cao, Jing Fang, George H Hinkle, Sara N Horst, Ergun Kocak, Donn Young, Doreen M Agnese, **Duxin Sun**, and Edward W Martin Jr. Pharmacokinetics and clinical evaluation of 125-I Radiolabeled Humanized CC49 Monoclonal Antibody (HuCC49DeltaCH2) in Recurrent and Metastatic Colorectal Cancer Patients. AACR Annual meeting, Anaheim, CA, April 2005
- 107 Cheng H, Cao, X, Xian M, Fang L, Cai TB, Tunac JB, **Sun D**, Wang GP. Synthesis and enzyme-specific activation of carbohydrate-geldanamycin conjugates with potent anticancer activity. AACR Annual meeting, Anaheim, CA, April 2005
- 108 **Sun D**, Badawy S, Nyamweya N, Heran C, Moench P, Hussain M, Patel J, Schuster AE, Franchini M, Zhao F, Gray D, Wall D. pH-Dependent Absorption of a Factor Xa Inhibitor in Different Formulations. Pharmaceutical Research Institute Scientific Symposium, Wallingford, CT. May 2003.
- 109 **Sun D**, Wu Y, Heran C, Stetsko PI, Zhao F, Hollenbaugh F, Wall D. Establishment of a Canine Absorption Model and Application to Optimize CRF Antagonist Formulations. Pharmaceutical Research Institute Scientific Symposium, Wallingford, CT. May 2003.
- 110 Shin HC, Landowski CP, **Sun D** and Amidon GL. Molecular cloning and substrate recognition of the sodium-dependent nucleoside transporter hCNT2 from human intestine. Molecular Biopharmaceutics: A new era in drug absorption transport and delivery. 2nd International Congress on Drug Absorption Transport and Delivery, January 22-24, 2003. Hawaii, USA.
- 111 Foster D, Landowski CP, Streetman D, **Sun D**, Amidon GL, and Welage LS. Alterations in the expression of key intestinal transporters and metabolic enzymes in thermally injured rats. 2003 Spring Practice and Research Forum: 2003 Updates in Therapeutics: The Pharmacotherapy Preparatory Course. American College of Clinical Pharmacy. April 27-30, 2003. Palm Springs, CA, USA.
- 112 Landowski, CP, Neudeck BL, Foster D, Gonzales JP, **Sun D**, and Amidon GL, and Welage LS. Alterations in cephalixin transport and PEPT1 expression following thermal injury in rats. . Molecular Biopharmaceutics: A new era in drug absorption transport and delivery. 2nd International Congress on Drug Absorption Transport and Delivery, January 22-24, 2003. Hawaii, USA.
- 113 Landowski CP, **Sun D**, Menon SS, Ramachandran C, Barnet JL, Foster D, Welage LS,

- and Amidon GL. Gene expression in human intestine and correlation with oral valacyclovir pharmacokinetic parameters. *AAPS Annual Meeting and Exposition*, Nov 10-14, Toronto, Canada.
- 114 **Sun D**, Fleisher D, Lee KD, and Amidon GL. Regional and diet dependent drug intestinal absorption and gene expression by GeneChip analysis in rat. *The 29th International Symposium on Controlled Release of Bioactive Materials*. July 20-25, 2002. Seoul, Korea.
- 115 **Sun D**, Landowski CP, Welage LS, Neudeck BL, Foster D, Hsu C-P, Higaki K, Fleisher D, and Amidon, GL. Implication of intestinal transporter expression and in vitro/in vivo intestinal drug permeability correlation. *The 28th International Symposium on Controlled Release of Bioactive Materials*. June 24-27, 2001. San Diego, CA.
- 116 **Sun D**, Landowski, CP, Chu X, and Amidon GL. Drug uptake and hPepT1 localization using hPepT1-GFP fusion protein. *2000 AAPS annual meeting and Exposition*. Oct. 2000. Indianapolis, IN.
- 117 **Sun D**, Funk CD. Cloning of a human "epidermal-type"12-lipoxygenase related gene. *The 5th International Conference in Eicosanoids and Other Bioactive Lipids in Cancer, Inflammation and Related Diseases*. La Jolla, CA, September 17-20, 1997.
- 118 **Sun D**, Funk CD. The potential role of leukocyte-type lipoxygenase in atherogenesis. *First Annual Vascular Biology Retreat: Basic Science encounters Clinical Application*. March 21, 1997. Chestnut Hill, PA. p40.
- 119 **Sun D**, Funk CD. Disruption of 12/15-lipoxygenase expressions in peritoneal macrophage: Enhanced utilization of the 5-lipoxygenase pathway and diminished oxidation of LDL. *Thirteenth Annual Student Symposium of University of Pennsylvania School of Medicine, Pharmacological Sciences*. October 1, 1996. Philadelphia, PA. p14.
- 120 **Sun D**, Funk CD. Disruption of the leukocyte-type 12/15-lipoxygenase in mice. *Frontiers in Bioactive Lipids'96. XVI Washington international spring symposium*. May 1996. Washington D.C.
- 121 Funk CD, **Sun D**, Johnson EN, Cheng XS. Arachidonate lipoxygenases molecular and gene knockout studies. *FASEB J* Apr. 30, 1996, P120.
- 122 **Sun D**, Rui YC. PAF and cerebrovascular endothelium injuries. *The First conference of basic and clinical research of cerebrovascular disorders*. September 1993. Shanghai, China. P178.
- 123 **Sun D**, Rui YC. The action of PAF on the cerebrovascular system. *The 8th international conference on prostaglandins and related compounds*. Montreal, Canada. July 1992, pp49.
- 124 **Sun D**, Rui YC. The specific binding sites of PAF on the cerebromicrovascular endothelial cells. *The 4th symposium of Chinese cardiovascular pharmacology*. August 1991. Shenyang, China. P253.
- 125 **Sun D**. The development of a PAF receptor antagonist and its pharmacological studies. *The First international conference of new drug development*. Oct. 1990. Beijing, China.

Invited Presentations

- 1 Sun D. Visualize cancer cell heterogeneity and their response to therapy through cancer stem cell hierarchy. Hope College, Holland, MI. October 26, 2018.
- 2 Sun D. From innovative medicine to drug development: new frontiers and challenges panel. Michigan China Biomedical Forum 2018 in Ypsilanti, MI. August 13, 2018.
- 3 Sun D. Why most nanomedicines fail to improve efficacy, but only alter toxicity. National Taiwan University School of Pharmacy Research Day and International Conference in Taipei, Taiwan. June 2, 2018.

- 4 Sun D. Real-time visualization of cancer stem cell plasticity, asymmetrical division, differentiation, and response to treatment to generate cancer cell heterogeneity. Cancer Center Grand Rounds at NCRC, University of Michigan, Ann Arbor, MI. March 19, 2018.
- 5 Sun D. Measurement of gastrointestinal luminal and plasma drug concentrations. Oral Drug Delivery 2018 *in vivo* Predictive Dissolution, formulation Predictive Dissolution conference in Lake Tahoe, NV. March 5, 2018.
- 6 Sun D. Development of GI sampling capsule. Oral Drug Delivery 2018 *in vivo* Predictive Dissolution, formulation Predictive Dissolution conference in Lake Tahoe, NV. March 5, 2018.
- 7 Sun D. Nanomedicine eliminates cancer stem cells. 2017 Chinese Pharmaceutical Conference in Shanghai, China. October 29, 2017.
- 8 Sun D. Broccoli as a functional food to eliminate cancer stem cells. 2017 Green Life Sciences Symposium, at the University of Michigan Ann Arbor, Michigan. October 21, 2017.
- 9 Sun D. Strategies for assessing equivalence of complex injectable products. Development of Generics & 505(b)(2): Opportunities, Challenges and Solutions symposium in Somerset, NJ. September 21, 2017.
- 10 Sun D. Direct measurement of *in vivo* dissolution of IR and MR drug products in human GI tract. AAPS Workshop on In Vivo Predictive Drug Dissolution/Simulation in Rockville, MD. September 11, 2017.
- 11 Sun D. Direct measurement of drug dissolution in human GI tract *in vivo* using human intubation study for modified release and immediate release drug products. 2016 AAPS meeting in Denver, CO. November 17, 2016.
- 12 Sun D. Modeling dynamic gastrointestinal fluid transit as a basis for dissolution and absorption. 2016 AAPS meeting in Denver, CO. November 16, 2016.
- 13 Sun D. Drug discovery targeting PRC2 to alter epigenetics for therapeutics of triple-negative breast cancer. International Conference on Drug Discovery and Translational Medicines, Zhengzhou University. November 4-6, 2016.
- 14 Sun D. Drug discovery targeting PRC2 to alter epigenetics for therapeutics of triple-negative breast cancer. 2016 China-US Translational Medicine Forum—University of Michigan Chapter, Guangxi Medical University, Nanning, China. October 29-November 1, 2016.
- 15 Sun D. Drug discovery target PRC2 to alter epigenetics for therapeutics of triple-negative breast cancer. Qinghua University, Beijing, China. October 21, 2016.
- 16 Sun D. Albumin paclitaxel nanoparticles inhibit cancer stem cells, enhance drug tissue penetration and cellular uptake, and alter elimination mechanism. 2016 International Forum on Leading Edge Technologies on Crystallization Engineering and Pharmaceuticals Development, Tianjin, China. October 14-16, 2016.
- 17 Sun D. Potential new method to improve BE of modified release drug products supported by *in vivo* drug dissolution and metabolism studies. Food and Drug Administration, Washington, DC. May 20, 2016.
- 18 Sun D. Natural products and nanomedicine to eliminate cancer stem cells. Department of Pharmaceutical Sciences, Wayne State University, Detroit, MI. March 16, 2016.
- 19 Sun D. Natural products and nanomedicine to eliminate cancer stem cells for cancer therapy. Fudan University, Shanghai, China. October 21, 2015.
- 20 Sun D. Nanomedicine to eliminate cancer stem cells. Tianjin University, Tianjin, China. October 15, 2015.
- 21 Sun D. Natural products to eliminate cancer stem cells for cancer therapy. Qingdao Agricultural University, Qingdao, China. October 12, 2015.

- 22 Sun D. Elimination of cancer stem cells for cancer therapy. Zhejiang University, Hangzhou, China. October 8, 2015.
- 23 Sun D. Nanomedicine and natural products for elimination of cancer stem cells. Second Annual Meeting of the International Ovarian Cancer Consortium, University of Oklahoma Health Sciences Center, Oklahoma City, OK. August 18, 2015.
- 24 Sun D. *In vivo* drug dissolution in human GI tract for controlled release and locally acting drug products. Food and Drug Administration, Washington, DC, May 20, 2015.
- 25 Sun D. Therapeutics of cancer stem cells using natural products. School of Medicine, University of Louisville, Louisville, KY. April 14, 2015.
- 26 Sun D. Direct Measurement of *In Vivo* Drug Dissolution in Human GI Tract. Department of Pharmaceutical Sciences, College of Pharmacy, University of Michigan, Ann Arbor, MI. August 5, 2014.
- 27 Sun D. Direct Measurement and Computational Modeling of *In Vivo* Drug Dissolution in Human GI tract for Accurate BA/BE Study and Prediction of Generic Drugs. Food and Drug Administration, Washington DC, May 16, 2014.
- 28 Sun D. Nano Satellite for Tumor Imaging and Photothermal Cancer Therapy. Tianjin Medical University, Tianjing, China. May 8, 2014
- 29 Sun D. Inhibition of Cancer Stem Cell Targets by Natural Products for Anticancer Therapy. Guangxi Medical University, Nanning, China. April 30, 2014.
- 30 Sun D. Natural products to inhibit cancer stem cells for cancer therapy. Jinan University. Guangzhou, China. April 28, 2014.
- 31 Sun D. Inhibition of Cancer Stem Cell Targets by Natural Products for Anticancer Therapy. Chinese Pharmaceutical University, Nanjing, China. April 23, 2014.
- 32 Sun D. Small Molecules to Inhibit Cancer Stem Cell Targets and Protein-Protein Interactions for Cancer Therapy. University of Florida, Gainesville, FL. March 25, 2014
- 33 Sun D. Small Molecules to Inhibit Cancer Stem Cell Targets and Protein-Protein Interactions for Cancer Therapy. University of Iowa, Iowa City, Iowa. Feb 27, 2014
- 34 Sun D. Novel cancer stem cell target and therapeutics for Herceptin-resistant Her2+ breast cancer. Translational Oncology Program, University of Michigan, January 30, 2014
- 35 Sun D Disruption of Protein-Protein Interactions in Hsp90 Complex for Cancer Therapy, Center for the Discovery of New Medicines, University of Michigan, September 13, 2013.
- 36 Sun D Antibody-Enzyme Conjugate for Prodrug Activation, AAPS Annual Meeting, October 14-18, 2012.
- 37 Sun D. Therapeutic of Cancer Stem Cells Using Natural Products, University of Pittsburgh, Pittsburgh, PA. January 21-22, 2013
- 38 Sun D. Nanotheranostics for cancer imaging and targeted drug delivery. 47th Annual Arden Conference, March 11-14, 2012, West point, NY
- 39 Sun D. Targeting breast cancer stem cells. 2011 AAPS annual meeting, Washington DC, Oct 2011.
- 40 Sun D. Nature products for therapeutics of cancer stem cells. 2011 International Symposium on Agricultural Biotechnology: Herbal Medicines for Immunity and Cancer. 10/20/2011, Taipei, China
- 41 Sun D. PET and Fluorescent Imaging to Study ADME of Tumor Targeting Antibody. AAPS webinar. August 2011.
- 42 Sun D. Therapeutics of cancer stem cells using natural products. International Meeting on Natural Products and Cancer Targets: Progress and Promise. August 24-25th , 2011; Zhengzhou, China
- 43 Sun D. TCM and cancer stem cells. The Consortium for Globalization of Chinese Medicine (CGCM), Shanghai, China. August 26-28, 2011.

- 44 Sun. D. Drug discovery and natural products for therapeutics of cancer and cancer stem cells. Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences. August, 2011
- 45 Sun D. Biological factors influencing bioavailability and bioequivalence (BA/BE). International Workshop on Bioavailability and Bioequivalence, June 20-21, 2011. Suzhou, China.
- 46 Sun D. Hsp90 inhibitors for therapeutics of cancer and cancer stem cells. Guangzhou Institutes of Biomedical and Health, Chinese Academy of Sciences, Guangzhou, China, June 2011
- 47 Sun D. PET and fluorescent imaging to study ADME of tumor targeting antibody. AAPS Annual Meeting, New Orleans, LA, November 2010
- 48 Sun D. Nanotheranostics for targeted drug delivery and tumor imaging. AAPS Annual Meeting, New Orleans, LA, November 2010
- 49 Sun D. Lead optimization and drug absorption prediction. Roche R&D Center (China) Ltd. June 17, 2010, Shanghai, China.
- 50 Sun D. Novel Hsp90 Inhibitors That Disrupt Protein-Protein Interaction for Cancer Therapy. Roche R&D Center (China) Ltd. June 17, 2010, Shanghai, China.
- 51 Sun D. New agents for therapeutics of cancer stem cells and nanotheranostics for tumor imaging and targeted drug delivery. Shanghai Pharmaceutical Association, June 9, 2010, Shanghai, China.
- 52 Sun D. Biological factors that influence oral bioavailability. The second Asian Arden Conference and Annual Meeting of Pharmaceutics Committee of Chinese Pharmaceutical Association, June 11-13, Shenyang, China.
- 53 Sun D. Lead optimization in drug discovery and development. The First International Research and Development of Innovative Drugs and Generic Drugs and the Assessment Process Forum, June 20-23, 2010, Guangdong, China.
- 54 Sun D. Hsp90 inhibitors for cancer and cancer stem cells, June 6, 2010, College of Pharmacy, Shandong University, Jinnan, China.
- 55 Sun D. Hsp90 inhibitors for cancer and cancer stem cells, June 12, 2010, College of Pharmacy, Nankai University, Tianjin, China.
- 56 Sun D. Hsp90 Inhibitors for Therapeutics of Cancers and Cancer Stem Cells, Jan 21, 2010, College of Pharmacy, University of Wisconsin, Madison, WA.
- 57 Sun D. pH-dependent solubility and absorption. 45th Annual Arden Conference, Feb 1-5, 2010, West point, NY
- 58 Sun D. Prediction of human hepatic metabolism and clearance from in vitro and in vivo animal experiments. AAPS annual meeting, Nov 8-12, 2009, Los Angeles, CA
- 59 Sun D. Targeted therapy and chemoprevention for cancer stem cells. AAPS annual meeting, Nov 8-12, 2009, Los Angeles, CA
- 60 Sun D. Predict Oral Bioavailability in Human: Forming an Interface between Preclinical Data and Clinical Outcome. AAPS PPB workshop, Baltimore, MD, May 2009
- 61 Sun D. Antibody and FDG for PET Tumor Imaging and Targeted Drug Delivery, AAPS Annual Meeting, Atlanta, GA, November 2008
- 62 Sun D. P-gp And microRNA in Drug Resistance AAPS Annual Meeting, Atlanta, GA, November 2008
- 63 Sun D. An Integrated System for Tumor Detection and Targeted Drug Therapy Using ADEPT: Preclinical, Clinical Testing and Pharmacokinetic Modeling. IBC's Antibody Engineering. San Diego, CA, December 7 -11, 2008,
- 64 Sun D. Novel Hsp90 inhibitors that disrupt Hsp90-Cdc37 interaction for the use of pancreatic cancer therapy. Poniard Pharmaceuticals Inc, San Francisco, 06/2008.

- 65 Sun D. Tumor detection and targeted drug therapy using monoclonal antibody and Hsp90 inhibitor in colorectal and pancreatic cancers. Department of Pharmaceutical Chemistry, College of Pharmacy, University of Kansas, April, 2008.
- 66 Sun D. Chemical biology and microRNA to overcome drug resistance. Department of Pharmacology, The Ohio State University, Feb. 2008.
- 67 Sun D. Transporter, bioavailability prediction and BCS. BA/BE, BCS, and IVIVC symposium, Johnson & Johnson Pharmaceutical Research Development, New Jersey, October, 2007
- 68 Sun D. Predict Oral Bioavailability in Human: Forming an Interface between Preclinical Data and Clinical Outcome. Pfizer Co. La Jolla, San Diego, CA, May 2007
- 69 Sun D. Pharmaceutical industry job application. The Society for Biological Engineering at OSU. Department of Chemical Engineering, College of Engineering, The Ohio State University, May 2007
- 70 Sun D. Tumor detection and targeted drug therapy using Hsp90 inhibitors in colorectal and pancreatic cancer. College of Pharmacy, University of Michigan, April, 2007.
- 71 Sun D. Tumor imaging and chemical biology in drug resistance. College of Biomedical Engineering, The Ohio State University. January, 2007
- 72 Sun D. Cancer detection and targeted drug therapy. Biochemistry and Molecular Biology, The College of Wooster, Ohio. November, 2006
- 73 Sun, D. New strategies for anticancer drug development, College of Pharmacy, Shandong University, Jinan, China, August, 2006
- 74 Sun, D. Integrated system for tumor detection and targeted drug therapy for colorectal cancer. School of Pharmacy, Rutgers University, New Jersey, April, 2006.
- 75 Sun, D. Integrated system for both tumor detection and targeted drug therapy of colorectal and pancreatic cancer. Division of Medicinal Chemistry, College of Pharmacy, The Ohio State University, 2006
- 76 Sun, D. Prodrug design and targeted drug delivery. Department of Biochemistry and Chemistry, Ohio State University, 2005
- 77 Sun, D. Nutrient transporter and Cancer development. Division of Pharmacology, College of Pharmacy, OSU. Nov, 2004
- 78 Sun D. Drug transporter and drug development. Advances in biopharmaceutics and drug delivery. University of Michigan. June, 2004.
- 79 Sun, D. Drug transporter and drug absorption screening. Third 3rd annual Workshop on "Screening of Oral Drug Absorption" Kobe, Japan. Dec. 2004
- 80 Sun D. Transporter and targeted drug delivery. Faculty of Pharmaceutical Sciences, Setsunan University, Japan. Dec. 2004
- 81 Sun D. Glucose transporters in cancer biology and targeted drug delivery. Department of Pathology, The Ohio State University, Columbus, HO 43210. Feb. 2004
- 82 Sun D. Glucose transporters and glycolysis enzymes in PET scan for cancer detection. Kettering Medical Center, Department of Medicine, Wright State University, Kettering, OH 45429. Mar. 2004
- 83 Sun D. *In vivo/in vitro* intestinal drug permeability correlation and implication of intestinal transporter expression by GeneChip analysis. The Cambridge Healthtech Institute's Fourth Annual Smarter Lead Optimization. Wyndham Franklin Plaza, Philadelphia, PA, USA. May 6-8, 2002.
- 84 Sun D. Pharmacy, Biopharmaceutics, Pharmacology, and Pharmacogenomics: From past to future. Biopharmaceutics and Genechip technology. Chinese Association of Pharmacy in Shanghai. Shanghai, China. September 2001.