School of Pharmacy

Shanghai University of TCM

Core Values

Preeminence

Inclusivity

Innovation

Nobleness

Contents

Message From the Dean

On behalf of our faculty, staff and students, I thank you for your interest in the Shanghai University of Traditional Chinese Medicine (SUTCM) School of Pharmacy. Since its inception in 1972, the School of Pharmacy's mission has been to lead in education, research and medical service, with the aim to contribute to the development of Chinese medicine and benefit patients, the pharmaceutical industry and the greater medical community. In the most recent National Education Evaluation by the Ministry of Education, our Chinese material medica specialty was ranked number one among the Traditional Chinese Medicine (TCM) universities in China.

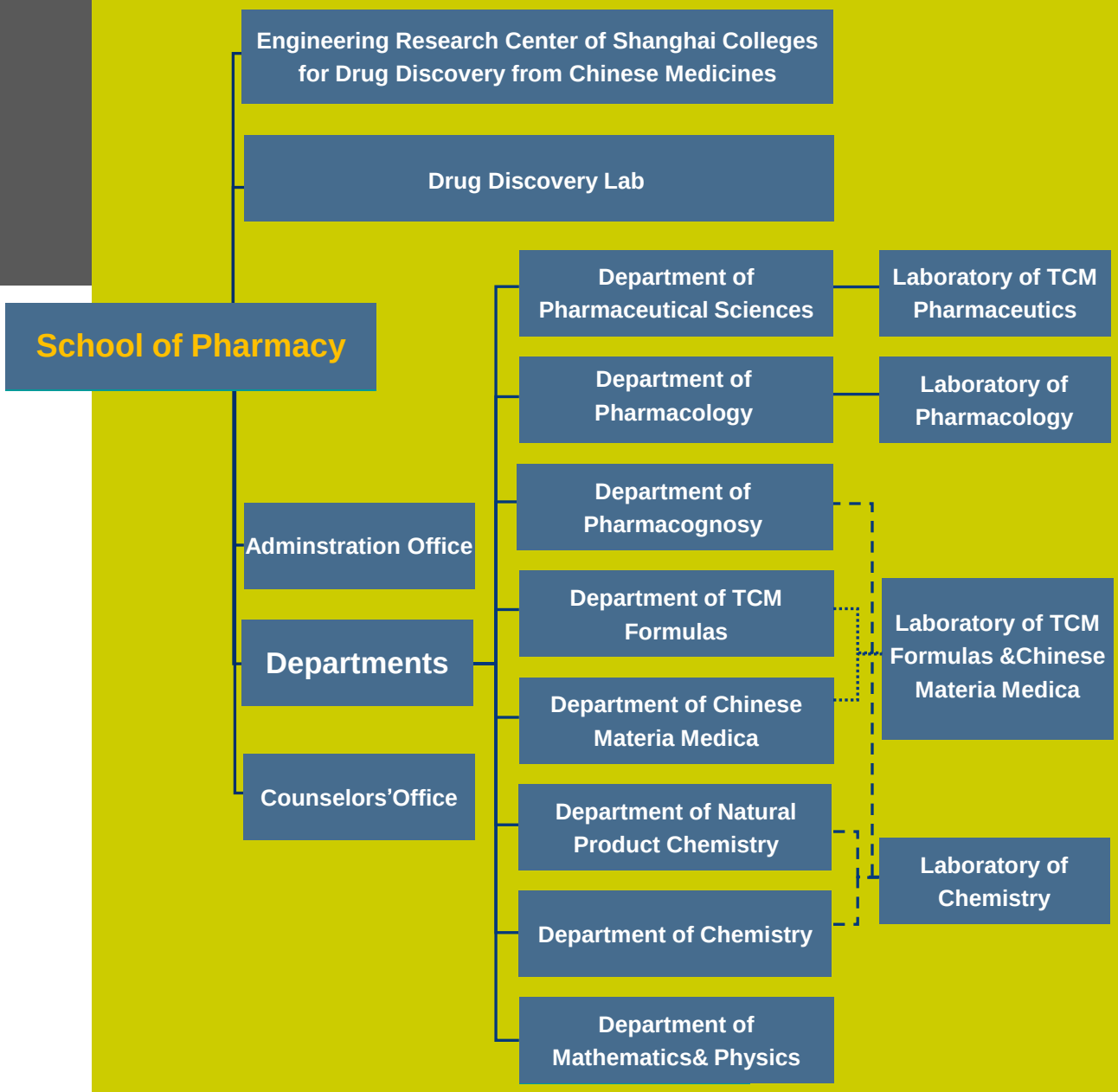
Our school has eight departments, five research labs and one research center. Currently, we have 101 faculty members, 872 undergraduate students and 125 post-graduate students, making us the second largest school in the university. We offer BSc, MS and PhD programs. For undergraduate education, we have established two majors, namely Chinese Medicines and Pharmacy. The latter is an international collaborative program between the SUTCM and London Metropolitan University.

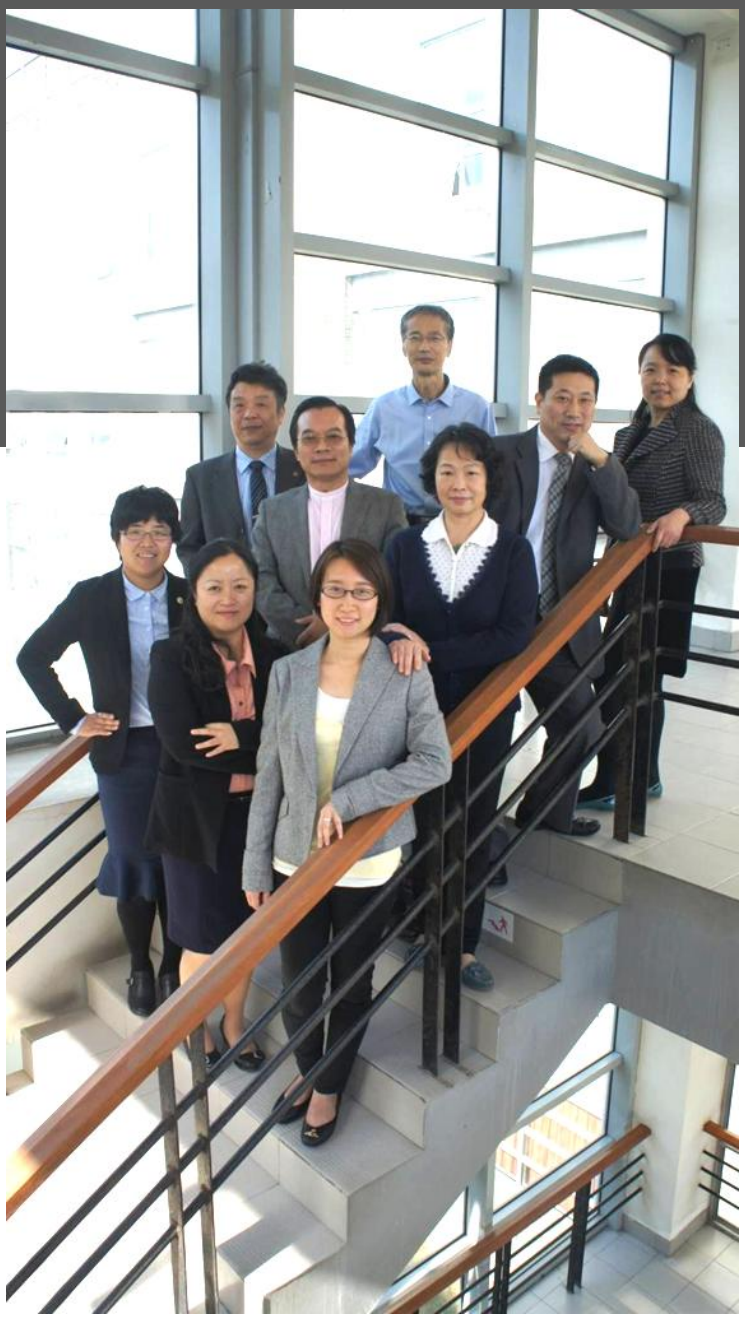
Our faculty is committed to providing all the necessary resources to support students. We insist on providing students with a high quality education integrated with scientific research and international concepts. Moreover, we aim to widen the scope of scientific research in Chinese medicines, especially in the field of new drug discovery, pharmaceutical techniques, quality control, pharmacology, pharmacodynamics and pharmacokinetics.

We continue to make significant progress in Chinese Medicines and Pharmacy education, and welcome all guests to visit our campus to view our impressive facilities and meet our talented group of faculty.

Dr. Hong-Xi Xu
Professor and Dean
School of Pharmacy

Current Structure Chart





Mission:

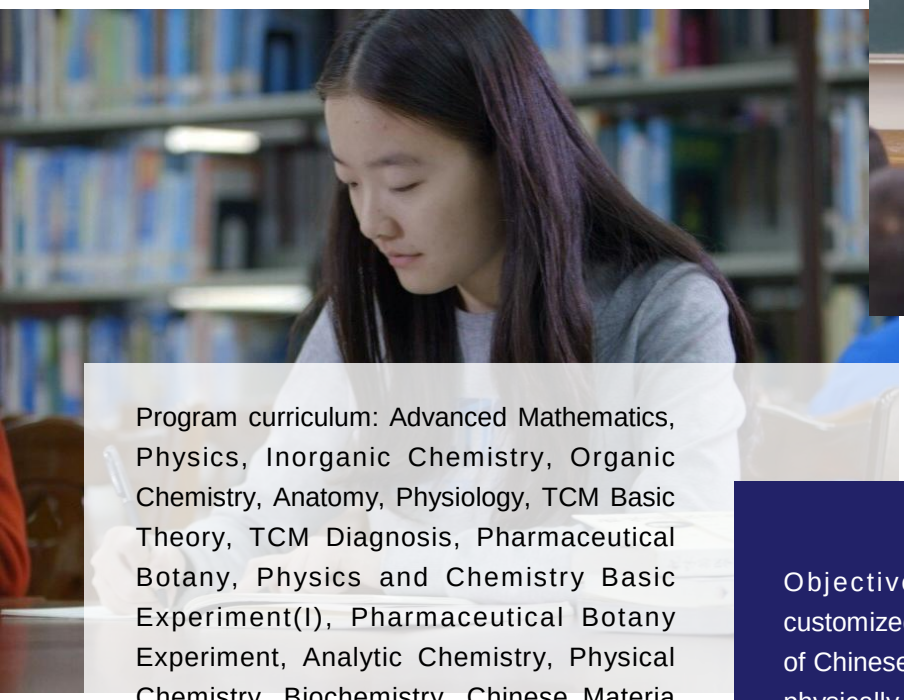
Through offering high-quality curriculums, carrying out forefront scientific researches, strengthening external cooperation, we foster a group of professional talents in the field of Chinese medicines with international perspectives and try to do our best in teaching, scientific research, medical administration and so on.

Vision:

By taking innovative researches of Chinese medicines and by promoting international communication, we strive to become an international first-class school with the combination of education, research, medical service and administration.

Curriculum

Chinese Medicines



Program curriculum: Advanced Mathematics, Physics, Inorganic Chemistry, Organic Chemistry, Anatomy, Physiology, TCM Basic Theory, TCM Diagnosis, Pharmaceutical Botany, Physics and Chemistry Basic Experiment(I), Pharmaceutical Botany Experiment, Analytic Chemistry, Physical Chemistry, Biochemistry, Chinese Materia Medica, Formulas of Chinese Herbal Medicine, Physics and Chemistry Basic Experiment(II), Basic Pharmacology, Pharmacology of Chinese Materia Medica, Pharmacology and Experiments of Pharmacology of Chinese Materia Medica, Chemistry of Chinese Materia Medica, Authentication of Chinese Materia Medica, Experiments of Authentication of Chinese Materia Medica, Pharmaceutics of Chinese Materia Medica, Science of Processing of Chinese Materia Medica, Chemistry Experiment of Chinese Materia Medica, Experiments of Pharmaceutics of Chinese Materia Medica, Experiments of Processing of Chinese Materia Medica.

Objective of Training: This program is customized to foster advanced talents in the field of Chinese medicines to be morally, intellectually, physically and aesthetically cultivated, to have socialist consciousness and to keep good value orientation of Chinese Medicines, and to possess independent study ability, and to have a sturdy foundation in the theory of TCM and Chinese medicines and professional practice capability. The program also provides a certain foundation in scientific research and teaching ability and prepares the graduates to be ready for TCM and Chinese medicines education, scientific research, international communication and also the administration of the courses of Chinese Medicines.

Pharmacy

Objective of Training: This program is launched for the development of TCM and Chinese medicines and for the need of internationalized talents of TCM and Chinese medicines. It is aimed to foster talents with substantial bi-lingual capability and sturdy foundation of pharmacology knowledge and skill. It prepares pharmaceutical professional and technical personnel that are suitable in the industry of pharmaceutical production, drug inspection, drug distribution, drug utilization and application, and pharmaceutical research and also in drug identification, drug design, drug quality control, pharmaco-dynamic efficacy evaluation, drug preparation, drug sales, rationalized clinical application of drugs and various other fields.

Program curriculum: Advanced Mathematics, Physics, Inorganic Chemistry, Organic Chemistry, Anatomy, Physiology, Basic Immunology and Pathogen Biology, Analytic Chemistry, Physical Chemistry, Basic Pharmacology, Biochemistry, Cell and Molecular Biology, Practical Chemistry, Pharmacognosy, Pharmaceutics, Natural Products Chemistry.

Field Botany

"Field Botany" is one of the featured practice course offered by the school of pharmacy of SUTCM. With high professional quality of the instructing team, the sprightly and diversified nature of its form of teaching, as well as its rich reaching content and its closeness to the nature, the course is well-received by students.

The teaching activity is arranged each year in the third semester in the "Tian Mu Mountain teaching base" of the university that is located in Zhejiang Province. The leader of the instructing team is Professor Zhi-Li Zhao who is also a doctoral supervisor.

Through many years of teaching practice and course construction, the school of pharmacy has reached satisfying educational outcomes and earned unanimous favorable comments from the students.

The related teaching achievements:

" Field Botany Teaching Reform Discussion " has won the 4th Teaching Achievement Award of Shanghai University of Traditional Chinese Medicine in 2011.

The course of " Pharmaceutical Botany " was selected as Shanghai Municipal-Level Excellent Course of Universities and Colleges in 2011.

The instructing team of the course of " Pharmaceutical Botany " was selected as Excellent Instructing Team of Shanghai University of Traditional Chinese Medicine in 2012.

Professor Zhi-Li Zhao was awarded Shanghai Municipal Talent-Nurturing Price in 2012.

Research

2014 Publications (Jan. ~ Nov.)

Y. Z. Lao, G. Wan, Z. Y. Liu, X. Y. Wang, P. Ruan, W. Xu, D. Q. Xu, W. D. Xie, Y. Zhang, H. X. Xu, N. H. Xu, The natural compound oblongifolin C inhibitsautophagic flux and enhances antitumor efficacy of nutrient deprivation, **Autophagy**, 10(5): 1-14 (**2014**).(IF=11.423)

G. Wan, W. D. Xie, Z. Y. Liu, W. Xu, Y. Z. Lao, N. Huang, K. Cui, M. J. Liao, J. He, Y. Y. Jiang, Burton B Yang, H. X. Xu, N. H. Xu, Y. Zhang, Hypoxia-induced MIR155 is a potent autophagy inducer by targeting multiple players in the MTOR pathway, **Autophagy**, 10(1): 70-79 (**2014**). (IF=11.423)

Y.Zhang, L. Yu, W. Cai, S. Fan, L. Feng, G. Ji, C. Huang. Protopanaxatriol, a novel PPARγ antagonist from *Panax ginseng*, alleviates steatosis in mice. **Scientific Reports**, 4:7375, DOI: 10.1038/ srep07375 (**2014**). （IF= 5.078）

S. Fan, Y. Zhang, Q. Sun, L. Yu, M. Li, B. Zheng, X. Wu, B. Yang, Y. Li, C. Huang, Extract of okra lowers blood glucose and serum lipids in high-fat diet induced obese C57BL/6 mice, **The Journal of Nutritional Biochemistry**, 25(7): 702-709 (**2014**).(IF=4.592)

S. Fan, Y. Zhang, Q. Sun, B. Zheng, X. Wu, B. Yang, Y. Li, C. Huang, Extract of okra lowers blood glucose and serum lipids in high-fat diet induced obese C57BL/6 mice, **The Journal of Nutritional Biochemistry**, 25:702-709 (**2014**). (IF=4.552)

M. S. Liu, L. Tao, S. L. Chau, R. Wu, H. Zhang, Y. F. Yang, D. J. Yang, Z. X. Bian, A. P. Lu, Q. B. Han, H. X. Xu, Folding Fan Mode Counter Current Chromatography (FFM-CCC) offers fast blind screening for drug discovery. Case study: Finding anti-enterovirus 71 agents from Anemarrhena asphodeloides, **Journal of Chromatography A**, 368 : 116-124 (**2014**), (IF=4.258)

G. Liu, Y. Zhang, C. Liu, D. Xu, R. Zhang, Y. Cheng, Y. Pan, C. Huang, Y. Chen, Luteolin alleviates alcoholic liver disease induced by chronic and binge ethanol feeding in mice, **Journal of Nutrition**, 144(7): 1009-1015 (**2014**). (IF=4.227)

Y. T. Zhang, L. N. Shen, J. H. Zhao, N. P. Feng, Evaluation of psoralen ethosomes for topical delivery in rats by using in vivo microdialysis, **International Journal of Nanomedicine**, 9 669–678 (**2014**). (IF=4.195)

L.N.Shen, Y.T.Zhang, Q.Wang, L.Xu, N.P.Feng, Preparation and evaluation of microemulsion-based transdermal delivery of total flavone of rhizoma arisaematis, **International Journal of Nanomedicine**, 9(1):3453—3464 (**2014**). (IF=4.195)

H. Zhang, D. D. Zhang, Y. Z. Lao, W. W. Fu, S. Liang, Q. H. Yuan, L. Yang, H. X. Xu, Cytotoxic and Anti-inflammatory Prenylated Benzoylphloroglucinols and Xanthones from the Twigs of Garcinia esculenta, **Journal of Natural Products**, 77:1700-1707 (**2014**). (IF=3.947)

H. Zhang, L. Tao, W. W. Fu, S. Liang, Y. F. Yang, Q. H. Yuan, D. J. Yang, A. P. Lu, H. X. Xu, Prenylated Benzoylphloroglucinols and Xanthones from the Leaves of Garcinia oblongifolia with Antienteroviral Activity, **Journal of Natural Products**, 77, 1037−1046 (**2014**). (IF=3.947)

L. N. Shen, Y. T. Zhang, Q. Wang, L. Xu, N. P. Feng, Enhanced in vitro and in vivo skin deposition of apigenin delivered using ethosomes, **International Journal of Pharmaceutics**, 460(1-2):280-288 (**2014**). (IF=3.78)

Y. T. Zhang, L. N. Shen, Z. H. Wu, J. H. Zhao, N. P. Feng, Comparison of ethosomes and liposomes for skin delivery of psoralen for psoriasis therapy, **International Journal of Pharmaceutics**, 471(1-2): 449–452 (**2014**). (IF=3.78)

R. Wang, J. Runco, L. Yang, K. Yu, Y. M. Li, R. Chen, Z. T. Wang, Qualitative and quantitative analyses of goitrin/epigoitrin in Isatis indigotica using supercritical fluid chromatography-photodiode array detector-mass spectrometry, **RSC Advances**, 44, 49257-49263 (**2014**). (IF=3.708)

R. Shi, Y. Y. Yang, J. Zhong, T. M. Wang, Y. M. Ma, Validated assay for the evaluation of multiple glucuronidation activities in human liver microsomes via liquid chromatography - tandem mass spectrometry, **RSC Advances**, 4, 56132–56138 (**2014**). (IF=3.708)

L. Feng, X. Liu, W. Zhu, F. Guo, Y. Wu, R. Wang, K. Chen, C. Huang, Y. Li, Inhibition of Human Neutrophil Elastase by Pentacyclic Triterpenes, **PLoS One**, 8 (12) : e82794 (**2014**). (IF=3.534)

M. Gu, Y. Zhang, S. Fan, X. Ding, G. Ji, C. Huang, Extracts of Rhizoma Polygonati Odorati prevent high-fat diet-induced metabolic disorders in C57BL/6 mice, **PLoS One**, 8(11):e81724 (**2014**). (IF=3.534)

H. S. Tan, D. D. Hu, J. Z. Song, Y. Xu, S. F. Cai, Q. L. Chen, Q. W. Meng, S. L. Li, S. L. Chen, Q. Mao, H. X. Xu, Distinguishing Radix Angelica sinensis from different regions by HS-SFME/GC-MS, **Food chemistry**, DOI: 10.1016/j.foodchem.2014.05.152 (**2014**). (IF=3.259)

L. Chen, P. Yuan, K. Chen, Q. Jia, Y. M. Li, Oxidative conversion of B- to A-type procyanidin trimer: evidence forquinone methide mechanism, **Food Chemistry**, Jul 1;154:315-22 (**2014**). (IF=3.259)

H. S. Tan, D. D. Hu, J. Z. Song, Y. Hu, S. F. Cai, Q. L. Chen, Q. W. Meng, S. L. Li, S. L. Chen, Q. Mao, H. X. Xi, Distinguishing Radix Angelica sinensis from different regions by HS-SFME/GC-MS, **Food Chemistry**, DOI: 10.1016/j.foodchem.2014.05.152 (**2014**). (IF=3.259)

C. Hou, M. Kulka, J. Zhang, Y. Li, F. Guo, Occurrence and Biological Activities of Eremophilane-type Sesquiterpenes, **Mini-Reviews in Medicinal Chemistry**, 14:664-677 (**2014**). (IF=3.186)

X. Shi, X. Lin, C. Yao, L. Shen, Y. Feng, Injectable long-acting in situ forming systems for Radix Ophiopogonis polysaccharide, **International Journal of Biological Macromolecules**, 72: 553–559 (**2014**). (IF=3.096)

M. S. Liu, S. L. Chau, D. L. Ma, C. H. Leung, Z. X. Bian, A. P. Lu, H. X. Xu, Q. B. Han, Using two-phase solvent systems for sample pretreatment increases yield of counter-current chromatography: Anemarrhena asphodeloides saponins, a case study, **Separation and Purification Technology**, 138(2014)138-143 (**2014**). (IF=3.065)

Y. T. Zhang, Z. H. Wu, K. Zhang, J. H. Zhao, B. N. Ye, N. P. Feng, An in vitro and in vivo comparison of solid and liquid oil-cores in transdermal aconitine nanocarriers, **Journal of Pharmaceutical Sciences**, 103(11):3602-3610 (**2014**). (IF=3.007)

Y. T. Zhang, L. N. Shen, Z. H. Wu, J. H. Zhao, N. P. Feng, Evaluation of skin viability effect on ethosome and liposome-mediated psoralen delivery via cell uptake, **Journal of Pharmaceutical Sciences**, 103(10): 3120-3126 (**2014**). (IF=3.007)

J. S. Wu, Y. Liu, R. Shi, X. Lu, Y. M. Ma, N.N.Cheng, Effects of combinations of Xiexin decoction constituents on diabetic nephropathy in rats, **Journal of Ethnopharmacology**, S0378-8741 (14)00678-3 (**2014**). (IF=2.939)

H. Zhang, L. Tao, W. W. Fu, S. Liang, Y. F. Yang, Q. H. Yuan, D. J. Yang, A. P. Lu, H. X. Xu, Application of proteomics to determine the mechanism of action of traditional Chinese medicine remedies, **Journal of Ethnopharmacology**, 155:1–8 (**2014**). (IF=2.939)

Q. Wang, P. Jiang, F. Y. Ye, R. Shi, Y. M. Ma, J. Zhong, J. S. Wu, P. Liu, C. H. Liu, Y. Q. Jia, Identification and pharmacokinetics of multiple constituents in rat plasma after oral administration of Yinchenzhufu decoction, **Journal of Ethnopharmacology**, 153(3): 714–724 (**2014**). (IF=2.939)

Y. Wang, R. Xu, J. Xiao, J. Zhang, X. Wang, R. An, Y. Ma, Quantitative analysis of flavonoids, alkaloids and saponins of Banxia Xiexin decoction using ultra-high performance liquid chromatography coupled with electrospray ionization tandem mass spectrometry, J**ournal of Pharmaceutical and Biomedical Analysis**, 88,525-535 (**2014**). (IF=2.9)

R. Tan, M. Niu, J. Zhao, Y. Liu, N. Feng, Preparation of vincristine sulfate-loaded poly (butylcyanoacrylate) nanoparticles modified with pluronic F127 and evaluation of their lymphatic tissue targeting, **Journal of Drug Targeting**, 22(6):509-517 (**2014**). (IF=2.85)

Y. Gao, J. P. Gao, C. X. Chen, H. L. Wang, J. Guo, R. Wu, Beneficial effects of decanoyl acetaldehyde on ventricular remodeling induced by coronary artery ligation in rats, **European Journal of Pharmacology**, 740 : 200-208 (**2014**). (IF=2.684)

J. Zhong, W. Mao, R. Shi, P. Jiang, Q. Wang, R. Zhu, T. Wang, Y. M. Ma, Pharmacokinetics of liposomal-encapsulated and un-encapsulated vincristine after injection of liposomal vincristine sulfate in beagle dogs, **Cancer Chemotherapy and Pharmacology**, 73(3):459-66 (**2014**). (IF=2.571)

S. Y. Zheng, H. S. Tan, X. G. Zhang, C. H. Yu, Z. W. Shen, Synthesis of benzo[c] fluorenone through a one-pot cascade reaction using inden-1-one derivatives, **Tetrahedron Letters**, 55(5), 975-978 (**2014**). (IF=2.391)

D. Q. Xu, Y. Z. Lao, N. H. Xu, H. Hu, W. W. Fu, H. S. Tan,Y. Z. Gu, Z. J. Song, P. Cao, H. X. Xu, Identification and characterization of anticancer compounds targeting apoptosis and autophagy from Chinese native *Garcinia* species, **Planta Medica,** DOI http://dx.doi.org/10.1055/s-0034-1383356 (2014). (IF=2.339)

L. L. Zhu, W. W. Fu, S. Watanabe, Y. N. Shao, H. S. Tan, H. Zhang, C. H. Tan, Y. F. Xiu, H. Norimoto, H. X. Xu, Xanthine Oxidase Inhibitors from Garcinia esculenta Twigs, **Planta Medica**, 80:1-6 (**2014**). (IF=2.339)

Y. Huang, X. Liu, Y .Wu, Y. Li, F. Guo, Meroterpenes from Psoralea corylifolia against Pyricularia oryzae, **Planta Medica**, 80:1298-1303 (**2014**). (IF=2.339)

Y. C. Wu, C. X. Guo, Y. Z. Zhu, Y. M. Li, F.J. Guo, G. F. Zhu, Four new bis-iridoids isolated from the traditional Tibetan herb Pterocephalus hookeri, **Fitoterapia**, 98.104-109 (**2014**). (IF=2.216)

J. Li, L. Zhang, C. Huang, F. Guo, Y. Li, Five new cyotoxic steroidal glycosides from the fruits of Solanum torvum, **Fitoterapia**, 93, 209–215 (**2014**). (IF=2.216)

L. Zhang, T. Zhu, F. Qian, J. Xu, G. Dorje, Z. Zhao, F. Guo, Y. Li, Iridoid glycosides isolated from Scrophularia dentata Royle ex Benth. and their anti-inflammatory activity, **Fitoterapia**, 38:84-90 (**2014**). (IF=2.216)

L. Chen, Y. Yang, P. L. Yuan, Y. F. Yang, K. X. Chen, Q. Jina, Y. M. Li, Immunosuppressive Effects of A-Type Procyanidin Oligomers from Cinnamomum tamala, **Evidence-Based Complementary and Alternative Medicine Volume**, doi.org/10.1155/2014/365258 (**2014**), (IF= 2.175)

Y. T. Zhang, Y. M. Xu, S. J. Zhang, J. H. Zhao, Z. Wang, D. Q. Xu, N. P. Feng, In vivo microdialysis for the evaluation of transfersomes as a novel transdermal delivery vehicle for cinnamic acid, **drug development and industrial pharmacy**, 40(3):301-307 (**2014**). (IF=2.006)

K. Zhang, X. Shi, X. Lin, C. Yao, L. Shen, Y. Feng, Poloxamer-based in situ hydrogels for controlled delivery of hydrophilic macromolecules after intramuscular injection in rats, **Drug delivery**, DOI:10.3109/10717544.2014.891272 (**2014**). (IF=2.202)

H. L. Luo, J. Zhong, F. Y. Ye, Q. Wang, Y. M. Ma, P. Liu, H. Zhang, M. Y. Sun, J. Jiang, A systematic quality control method of Huangqi decoction: simultaneous determination of eleven flavonoids and seven triterpenoid saponins by UHPLC-MS, **Analytical Methods**, 6 (13), 4593 – 4601(**2014**). (IF=1.938)

T. M. Wang, L. Q. Ding, J. H. Jin, R. Shi, J. Zhong, C. Gao, Q. Wang, L. Zhu, Y. M. Ma, Simultaneous determination of 14 major components in Longhu Rendan pills by ultra-high-performance liquid chromatography coupled with electrospray ionisation tandem mass spectrometry, **Analytical Methods**, 6(9): 2923-2929 (**2014**). (IF=1.938)

T. M. Wang, L. Q. Ding, Y. Q. Jia, H. J. Jin, R. Shi, L. Zhu, Y. M. Ma, Simultaneous determination of six volatile components in Longhu Rendan pills using gas chromatography coupled with triple quadrupole mass spectrometry, **Analytical Methods**, 6(11): 3713–3719 (**2014**). (IF=1.938)

S. Y. Ma, L. Shen, Y. Zhuai, X. Lin, Y. Feng, L. M. Xu, K. F. Ruan, An integral evaluation method for synchronous drug release based on a mathematics set in guiding the preparation of multi-component traditional Chinese medicine, **Analytical Methods**, 6, 2260–2269 (**2014**). (IF=1.938)

Y. Zhang, J. Yuan, Y. Zhang, Y. Chen, J. Cao, R. An, X. Wang, LC-MS/MS analysis of Gegen Qinlian Decoction and its pharmacokinetics after oral administration to rats, **Biomed. Chromatogr**, DOI:10.1002/bmc.3300 (**2014**). (IF=1.662)

Y. Wu, Y. Yin, Y. Li, F. Guo, G. Zhu, Secoiridoid/iridoid subtype bis-iridoids from Pterocephalus hookeri, **Magnetic Resonance in Chemistry**, 52.734-738 (**2014**). (IF=1.559)

G. Y. Wang, J. Z. Zhang, M. Kulka, F. J. Guo, Y. M. Li, Eremophilane Glucosides from Petasites japonicus, **Helvetica Chimica Acta** , 97, 985-991 (**2014**). (IF=1.394)

B. Xu, J. H. Xue, J. J. Tan, S. H. Jiang, F. J. Guo, Y. M. Li, Two New Alkaloids from the Roots of Aconitum sinomontanum Nakai, **Helvetica Chimica Acta**, 97(5):727-732 (**2014**), (IF= 1.394)

Y.Chen, C.Gao, Y.M.Ma, Pharmacokinetic study of multiple active constituents after oral gavage of Guizhi decoction in rats using a LC-MS/MS method, **European journal of drug metabolism and pharmacokinetics**, 38(4):283-293 (**2014**). (IF=1.312)

Y. C. Wu, Y. J. Ying, F. J. Guo, G. F. Zhu, Bis-iridoid and lignans from traditional Tibetan herb Pterocephalus hookeri, **Biochemical Systematics and Ecology**, 56.209-212 (**2014**), (IF=1.17)

T.X.Li, L.Hu, M.M.Zhang, J.Sun, Y.Qiu, J.Q.Rui, X.H.Yang, A rapid UPLC method for simultaneous determination of eleven components in ‘Ge-Gen-Qin-Lian’ decoction, **Pharmacognosy Magazine**, 10(40):464-469 (**2014**). (IF=1.112)

Y.Zhang, J.Yuan, Y.Wang, Y.Wang, R.An, X.Wang, LC-MS/MS determination and pharmacokinetics studyof puerarin and daidzein in rat plasma after oral administration of Gegenqinlian decoction and Radix Puerariae extract, **Pharmacognosy Magazine**, 10(39):241-248 (**2014**). (IF=1.112)

Y.Pan, Z.Chu, W.Wang, B.Yang, Pretreatment with Jieduxiezhuo decoction impedes elevations in serum uric acid levels in mice, **Journal of tradition Chinese Medicine**, 33(6) : 794-797 (**2014**).

L.Teng, F.Hong, C.Zhang, J.He, H.Wang, Compound formula rehmannia alleviates levodopa-induced dyskinesia in parkinson’s disease, **Neural Regeneration Research**, 9(4) 407-412 (**2014**).

National Research Projects

Name of the Research Project	Fundings
Anti-HSV Agent From *Prunella Vulgaris.L*	Major Projects
New Drug Development Based on Traditional Marine Material Medica	863
Studies of The Anti-cancer Activities and Synergistic Actions of Components from *Garcinia*	The National Nature Science Fund
The Anti-inflammatory Effects and Mechanism Studies on Iridoids from *Scrophularia Ninpoensis*	The National Nature Science Fund
Eremophilenolides Compounds Reduce Allergic Inflammation by Inhibiting Mast Cell Activation	The National Nature Science Fund
The Study of Liver Concentration Mechanism of The Effective Compounds of Xie Xin Decoction Based on Serotonin Transporter	The National Nature Science Fund
Validation and Mechanism of SMARCAL1 As An Anti-cancer Target	The National Nature Science Fund
Ethnobotanical Survey of Tibetan Herb Jie-Ji and Study on Standard Protocol for DNA Barcoding Identification	The National Nature Science Fund
The Mechanism Study on Myocardial Ischemia Reperfusion Injury Treated by Huoluoxiaolingdan Based on Wnt/beta Catenin Signal	The National Nature Science Fund
Active-ingredients-based Dynamic Transformation of Isatidis Radix Crude Drugs, Slices and Its Finished Products	The National Nature Science Fund
Bioactivity and in Vivo Disposition of Poly(ethylene glycol)-modified Ophiopogon Japonicus Polysaccharide	The National Nature Science Fund

Name of the Research Project	Fundings
Study on The Different Pharmacokinetic Properties of Coptis Rhizoma Alkaloids Between Blood and Tissues	The National Nature Science Fund
Mechanism of The Specific Analgesic Effects of Interior-warming Prescription Applied on Umbilical Region	The National Nature Science Fund
Development and Evaluation of Oridonin Loaded Novel Lipid-polymer Nanoparticles for Rapid Mucus Penetration and Enterocyte Bioadhesion	The National Nature Science Fund
Study of Angoroside C on Its Extraction from Scrophulariae Radix and The Effects Against Ventricular Remodeling	The National Nature Science Fund
The Anti-hyperlipidenmia and Anti-diabetes Mechanism Study of Effective Components from *Morusalba* L. Based on LXRβ Antagonism	The National Nature Science Fund
Study on The Transporter-mediated Pharmacokinetic Interaction Between Coptis Rhizoma and Metformin	The National Nature Science Fund
Investigation on The Mechanisms of Guttiferone K Which Inhibits Tumor Metastasis and Angiogenesis I Hepatocellular Carcinoma	The National Nature Science Fund
Research of Mechanism and Invention Effect Based on SOCS Negative Regulation of JAK-STAT Pathway on Diabetic Nephropathy of Compound Yuxingcao	The National Nature Science Fund
Research on The Anti-cancer Compounds From *Garcinia Esculenta* and Their Action Mechanism	The National Nature Science Fund
A Novel Liposime Containg Gold Nanoparticles Intended for Intracellular Anti-cancer therapy of Ginsenoside Rh2 and Paclitaxel	The National Nature Science Fund

Departments

Department of Pharmaceutical Sciences

Novel drug delivery system for Chinese medicines

Industrial pharmaceutics

Nanotechnologies for Chinese medicines

Pharmacokinetic of Chinese medicines

Department of Pharmacology

Drug Metabolism and Pharmacokinetics of Chinese medicines: Focus on ADME and Pharmacokinetics of Chinese medicines, relationship between Pharmacokinetics and the effectiveness/toxicity of Chinese medicines, metabolism and transporter-mediated herb-drug/herb-herb interactions.

Cardiovascular Pharmacology: Focus on the cellular and molecular mechanism of heart failure with the aim of developing effective therapeutic strategies in Chinese medicines.

Inflammation and Immunity: Focus on new treatment for inflammatory and immune-associated diseases.

Source and distribution of medicinal plants

Taxonomical identification

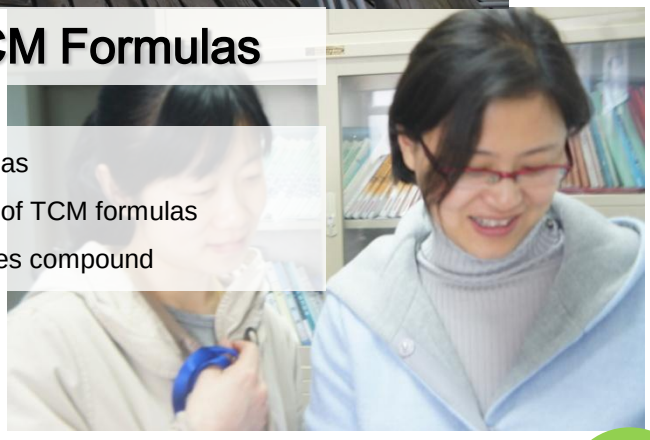
Department of Pharmacognosy

Department of TCM Formulas

Compatibility law of TCM formulas

Theory and clinical applications of TCM formulas

Mechanism of Chinese medicines compound



Department of Chinese Materia Medica

Review and study ancient Chinese medicines literature

Chinese Medicines efficacy study on cancer, pain, gout, hyperlipidemia, obesity, asthma, etc.

Active lead compounds isolation from Chinese medicines

Effective constituents identification from Chinese medicines

Department of Natural Product Chemistry

Department of Chemistry

Quality analysis of Chinese medicines

Quality control of Chinese medicines

Department of Mathematics & Physics

Mathematical pharmacology

Complexity of Chinese medicines

Medical Sta tistics

Medical physics

Engineering of Chinese medicines

Research Center & Lab

Engineering Research Center of Shanghai Colleges for Drug Discovery from Chinese Medicines

The research center was formally established on July, 2012 upon approval from the Shanghai Science and Technology Committee. The center is committed to a distinctive mission of conducting quality research and developing new drugs from Chinese medicines. The center is continuously striving to perform original innovative researches, acquire intellectual properties, nurture talented young scientists for Chinese medicines research, and expand high-level international academic collaborations. Synergistic applications of the multi-disciplinary and cutting-edge technologies are particularly encouraged so as to establish the most innovative platforms for new drug discovery based on Chinese medicines.

Our research interest is focused on new drug discovery from natural resources, as well as the development of botanical dietary supplements from herbal medicines. Specifically, we are interested in finding natural lead compounds from medicinal plants and in developing new drug based on Chinese medicines against different diseases such as cancer, infecious diseases and metabolic diseases. We apply multiple assay models targeting cell death (e.g. apoptosis, autophagy), metastasis, and quiescent cell recurrence to screen for anti-cancer natural compounds. With state-of-the-art technologies, we investigate the *in vitro* and *in vivo* mechanisms of action of the novel compounds from medicinal plants. We have also built a number of research platforms, including proteomics, metabolomics, LC-MS and NMR analysis, anticancer and antiviral screening platforms.

Equipments including: Fluorescent live cell imaging system (Olympus IX83), Real-Time PCR machine (ABI), 2D proteomics system (Ettan), Western blot analysis system (Bio-rad), Chemiluminescent imaging system (GE LAS4000), FluoChemE gel analysis system (Protein Simple), Clean bench (ACB), Tissue culture incubators (Sanyo), Micro centrifuges (Eppendorf) , ACQUITY UPLC H-Class (Waters), 2545 Prep-HPLC(Waters), 2535 Semi-Preparative HPLC(Waters), E2695 HPLC(Waters), DR FLASH-S Prep-Purification System (Lisure Science, Suzhou, Co. ltd), HSCCC (Tauto Biotech TBE-300C, Shanghai, Co. ltd), FreeZone (Labconco 2.5L), Coulter Allegra Refrigerated Centrifuge (Beckman X-12R), SPD111VP1 SpeedVacKit (Thermo Scientific) and so on.

Research Center & Lab

Drug Discovery Lab

In 2009, Dr. Cheng Huang established this Drug Discovery Lab at School of Pharmacy in SUTCM, where he built up several novel drug discovery patterns to study Chinese medicines on metabolic syndrome, cancer, atherosclerosis, aging and other diseases.

As the leader of this lab, Dr. Huang obtained his M.D degree in SUTCM, and received postdoc training in Chinese Academy of Sciences and Baylor College of Medicine in Texas, USA.

Available online at www.sciencedirect.com

ScienceDirect

Journal of Nutritional Biochemistry 25 (2014) 702–709

Journal of Nutritional Biochemistry

Extract of okra lowers blood glucose and serum lipids in high-fat diet-induced obese C57BL/6 mice☆

Shengjie Fan[a], Yu Zhang[a], Qinhu Sun[b], Lijing Yu[a], Mingxia Li[a], Bin Zheng[a], Ximin Wu[a], Baican Yang[a], Yiming Li[a], Cheng Huang[a,*]

[a]School of Pharmacy, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China
[b]Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China

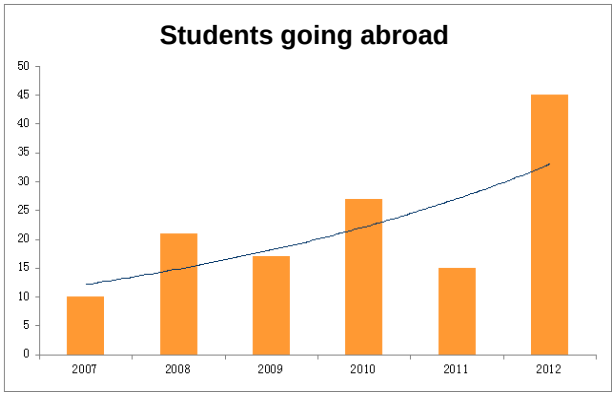
Received 5 September 2013; received in revised form 5 February 2014; accepted 14 February 2014

Research interests:

Metabolic syndrome is a complex medical condition including obesity, insulin resistance, hyperlipidemia and atherosclerosis, and is a worldwide problem with rapidly increasing prevalence. Our goal is to find novel therapy and nutraceuticals for fighting the diseases from Chinese herbs, foods and natural compounds. Currently, we focus our study on the ligands of nuclear receptor transcription factors, such as PPAR and LXR. Being screened via in *vitro* models, such as 3T3-L1 preadipoctye differentiation model and dual fluorescence report assay, along with different animal model, potential candidates are selected for further studies. We also study the underlying mechanism for the chemical reaction. For extract from food components and Chinese medicines, we will illuminate their cellular and molecular signaling pathways using multiple experimental techniques.

International Collaboration

Up to the end of year 2014, the school of Pharmacy has sent out up to 180 undergraduate students through various exchange programs. Among them, a number of graduates have obtained master degrees and doctoral degrees in various universities abroad, such as Imperial College of Britain, University College London(UCL), Kings College of Britain and the University of Edinburgh.



To satisfy the demand of internationalized talents in the field of Chinese Materia Medica for the development of the course of Chinese mediciness and Pharmacy,

SUTCM conforms to its school-running characteristics of "featuring TCM" and "international communication oriented".

The school of pharmacy has carried out various co-operational educational programs with various universities abroad. It has launched under-graduate degree program of pharmacy with London Metropolitan University, and opened up graduate degree program with Paris Descartes University (Paris Number Five University). And it has also been making arrangements with University of British Columbia in Canada about starting new cooperation programs.

After launching international cooperation programs, through introducing excellent teaching resources from overseas and sending Chinese teachers abroad for advanced training and cultivation, and by the localized development of teaching materials of the programs introduced from overseas, and through the construction of Chinese Materia Medica Joint Research Center as well as other works, the integrative effect of international cooperative education is augmenting continuously.

LONDON metropolitan university

UBC The University of British Columbia

UNIVERSITÉ PARIS DESCARTES

Add：1200, Cailun Rd., Pudong, Shanghai, China
Zip Code：201203
Tel：021-51322192
Fax：021-51322196
Website：www.shutcm.edu.cn
E-mail：pharmacy@shutcm.edu.cn

12 / 2014