



CONSORTIUM FOR GLOBALIZATION OF CHINESE MEDICINE

中药全球化联盟



Beijing

北京



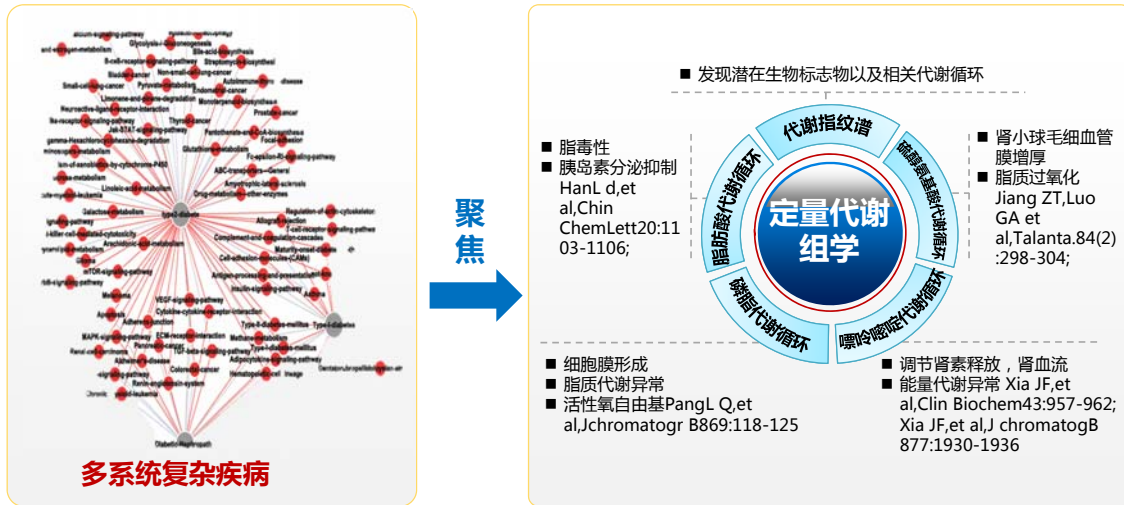
China-Japan Friendship Hospital Ping Li



Member Institutes from Beijing, PR. China

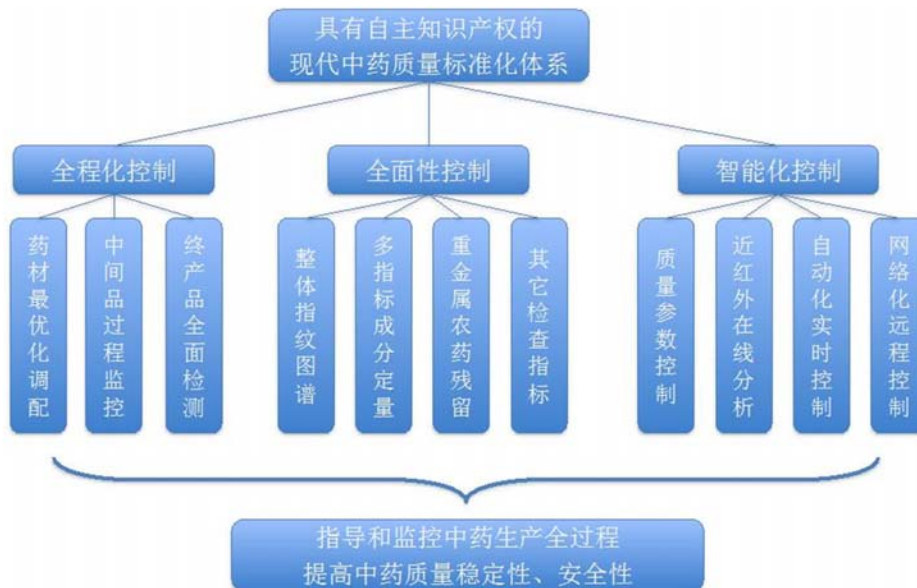
1. **Tsinghua University**
2. **Peking University**
3. **Chinese Academy of Medical Sciences & Peking Union Medical College**
4. **China Academy of Chinese Medical Science**
5. **Beijing University of Chinese Medicine**
6. **PLA Institute of Chinese Materia Medica**
7. **Beijing Cancer Hospital & Institute**
8. **Beijing Technology and Business University**
9. **China-Japan Friendship Hospital**
10. **Institute of Microbiology, CAS**
11. **National Engineering Research Center for Crop Molecular Design**

Development of the methodology of Quantitative metabolomics for TCM



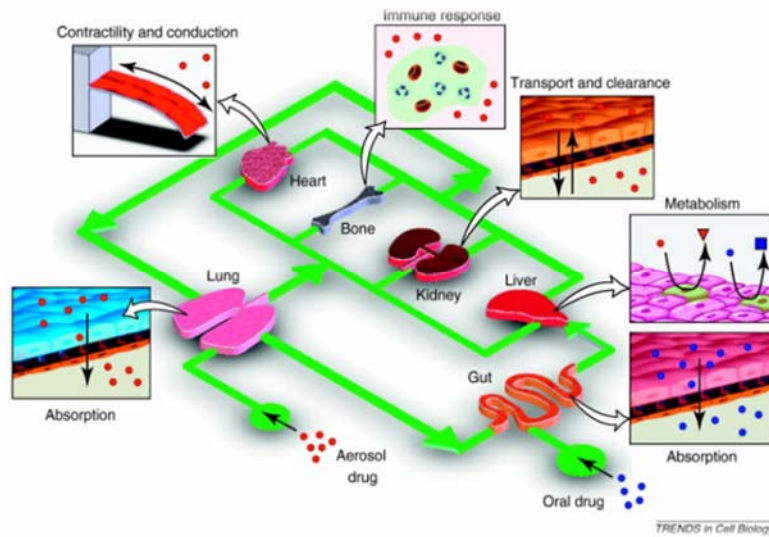
建立的方法平台已应用于糖尿病、糖尿病肾病、冠心病、中风等中医辨证分型和中医药疗效评价研究，发表SCI论文近百篇，单篇最高引用超百次。其中与北京中日友好医院合作开展的糖尿病肾病研究成果候选2016年国家科技进步二等奖。

Development of the methodology of quality control and quality standard for TCM



其中与河北神威药业合作开展的中药注射剂质控体系研究成果获得2014年国家科技进步二等奖。

Development of frontier technology of human-on-a-chip for drug screening and safety assessment



2013年主持启动国内该领域第一个国家重大专项课题，“仿生微流控芯片新药研究开发关键技术研究”。该课题已申请专利20余项，发表SCI论文50余篇，其中包括PNAS、Anal Chem、lab on a chip等IF>5论文近20篇。

Institute of Chinese Materia Medica China Academy of Chinese Medical Sciences

创建全新中草药DNA条形码物种鉴定体系

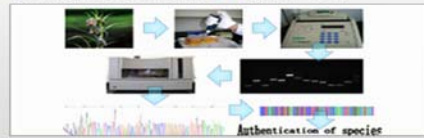
鉴定体系构成

- ◆ ITS2为主体序列
 - ◆ *psbA-trnH*为辅助序列
- 适用于中药材（包括药材、药材粉末及部分药材饮片）及基原物种的鉴定



标准操作流程 (SOP)

- ◆ 供试样品处理
- ◆ DNA提取
- ◆ PCR扩增
- ◆ 条形码序列获取
- ◆ 结果判断



中草药鉴定平台

- ◆ 标准化中草药DNA条形码数据库
- ◆ 网络鉴定操作平台



www.tcmbarcode.cn

鉴定软件系统

- ◆ DNA拼接软件
- ◆ 中药DNA条形码鉴定软件



Institute of Chinese Materia Medica China Academy of Chinese Medical Sciences

2016年国家科学技术进步二等奖 “中草药DNA条形码物种鉴定体系”

- 创建全新中药DNA条形码鉴定体系并纳入《中国药典》
- 鉴定系统在国内860余家研究检验机构和企业合作应用
- 英国药典委BP专家到课题组实验室进修学习
- 美国药典委中草中草DNA条码进入美国药典事宜
- 多次应邀在美国药典委员会、欧洲药品质量管理局(EDQM)、韩国生药学会、日本科研机构等介绍中草药DNA条形码鉴定体系

构建全球最大160万条序列中药DNA条形码数据库及鉴定平台

“中草药DNA条形码鉴定体系” Biotech Adv2014 (IF 11.2*)

“植物条形码研究从基因到基因组” Biol Rev 2014 (IF 10.2*)



- 2014年度中华中医药学会自然科学奖一等奖
- 2014年度教育部高等学校科学研究优秀成果奖科技进步一等奖
- 2016年度国家科技进步二等奖



突出中药原创优势 广泛开展国际合作

2004年 至今:

50个国际合作项目及对台项目立项 累计获资助经费1500余万元

■ 科技部国际合作项目20项 建立全球中药研究合作网络

- 俄罗斯 意大利 韩国 日本 挪威 奥地利 巴基斯坦
- 匈牙利 捷克 埃及 南非 泰国 意大利

■ 世界卫生组织 (WHO) 项目 国务院台湾事务办公室项目

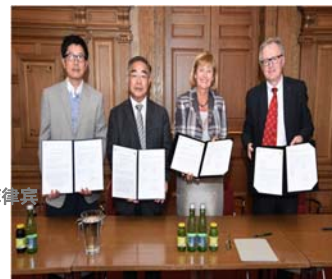
■ 中法国际科技合作项目 欧亚太平洋学术联盟合作项目

2016年7月

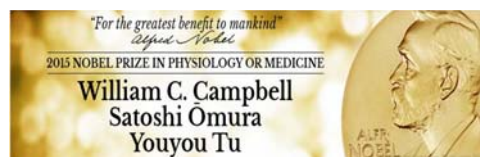
与奥地利格拉兹大学共签署了合作协议 积极推进共建联合实验室

研究内容:

- 中药质量评价及活性物质基础
- 中药安全性安全性和生物功能表征等



青蒿素——源自中草药园的抗疟I类新药



- ◆2015年度 屠呦呦获诺贝尔生理学或医学奖
 - ◆2015年度 屠呦呦获哈佛大学医学院华伦·阿尔波特奖
 - ◆2011年度 屠呦呦获拉斯克-狄贝基临床医学研究奖
- “发现了青蒿素——一种治疗疟疾的药物，在全球特别是发展中国家挽救了数百万人的生命”

双氢青蒿素——临床适应症扩展——治疗红斑狼疮获临床批件



Guang'anmen Hospital (GAM)



广安门医院

- ◆ Founded in 1955 as an affiliated hospital of China Academy of Traditional Chinese Medicine (TCM)
- ◆ A general hospital of TCM conducting clinical practice, scientific research and teaching
- ◆ As the national demonstration of Traditional Chinese Medicine hospital and the central base of cadre health care



- ◆ 12 key disciplines of State Administration of Traditional Chinese Medicine (SATCM)
- ◆ 5 laboratories approved as the third grade research room by SATCM
- ◆ 2 key research rooms of SATCM

Guang'anmen Hospital (GAM)

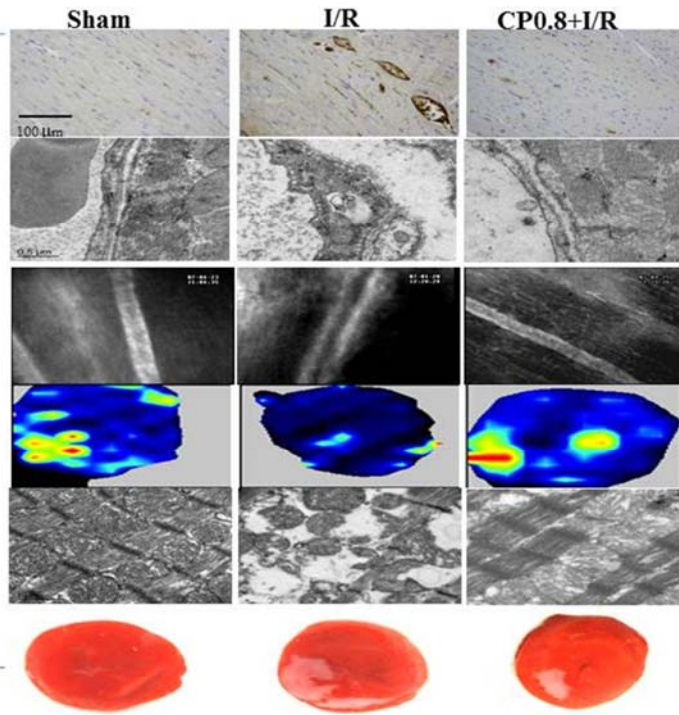


- ◆ 233 on-going research projects
 - 91 national level projects
 - 49 ministerial and bureau level projects
 - 53 city-level projects
 - 40 academy-level projects.
- ◆ 164 scientific research achievements.
 - 13 projects won the National Science and Technology Progress Award
 - 135 projects acquired provincial level and ministerial level awards.
- ◆ 9 new herbal preparations' diplomas
- ◆ 40 national patents
- ◆ In 2015, it has published 752 academic papers, including 109 SCI papers.

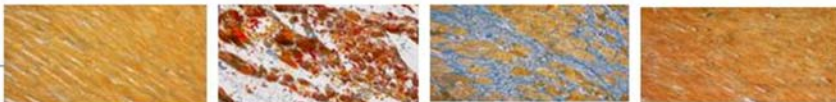


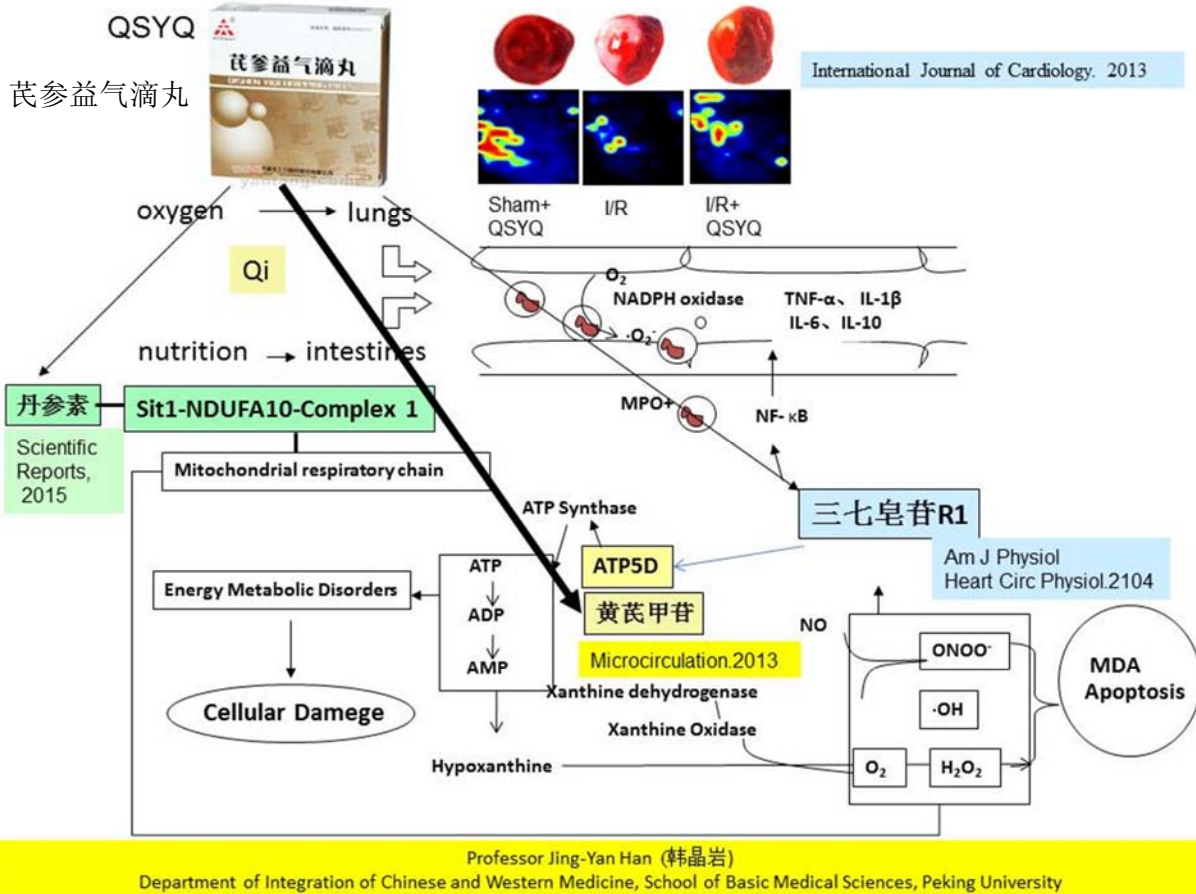
复方丹参滴丸

Am J Physiol Heart Circ Physiol. 2010



Microcirculation.2013





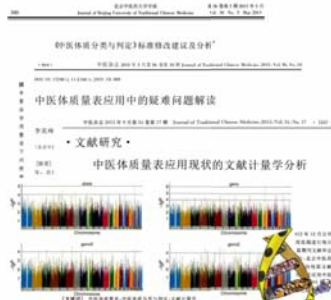
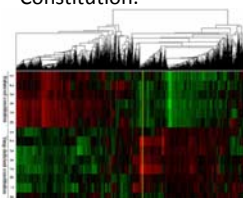
Beijing University of Chinese Medicine

Research on Constitutions and Visceral manifestations



Prof. Qi Wang

- ✓ Constitution of CM Questionnaire.
- ✓ Constitution and Gene.
- ✓ Biological Basis of Constitution.



- Mild
- Deficiency of Qi
- Damp-hot
- Deficiency of Yin
- Depression of Qi
- Deficiency of Yang
- Phlegm wet
- Blood stasis
- Allergies



Prof. Qingguo Wang

- ✓ A Study on "Liver Storing Blood and Taking Charge of Catharsis".

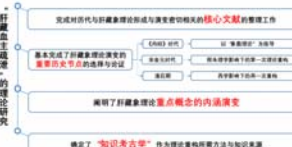
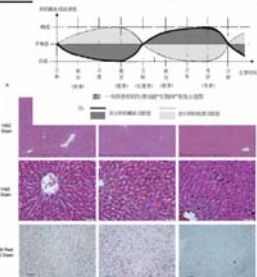


表2 82例女大学生月经不同时期自评量表
精神情绪表现评分(分, $\bar{x} \pm s$)

临床表现	月经期	卵泡晚期	黄体中晚期
记忆力减退	0.84 ± 0.70	0.65 ± 0.65	0.67 ± 0.71
烦躁不安	0.72 ± 0.73	0.53 ± 0.66	0.52 ± 0.64
注意力不集中	0.68 ± 0.71	0.40 ± 0.60	0.41 ± 0.63
容易发火	0.64 ± 0.67	0.48 ± 0.61	0.47 ± 0.67
思维对思维变慢	0.40 ± 0.77	0.14 ± 0.69	
反应能力变慢			
容易紧张			
活动能力变慢			
便秘			
失眠			
头晕			
胸闷			
心悸			
手脚冰凉			
情绪低落			
易怒			
易哭			
易怒			
易哭			
易怒			
易哭			



Beijing University of Chinese Medicine

Research on Standardization and Biological Basis of Syndrome



Prof. Qingguo Wang

- ✓ A Study on Syndrome Standardization and Systematize.

- On the premise of the **disease**, the **syndrome elements** are the core to establish the Syndrome Standardization



Prof. Tianfang Wang

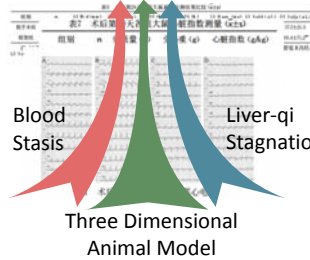
- ✓ A Study on Syndrome Standardization and Systematize.

- On the premise of the **disease**, the **syndrome elements** are the core to establish the Syndrome Standardization



Prof. Wei Wang

- ✓ A Study on Biological Basis of Syndrome



Prof. Jiaxu Chen

- ✓ A Study on Biological Basis of Liver-qi Stagnation and Spleen-qi Deficiency

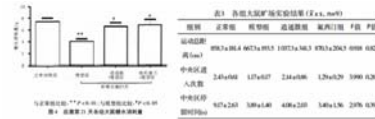


表4 胃底部和血浆 Chelin 含量的变化分析 (x ± s, n = 8) pg/ml.

组别	胃底部 Chelin	血浆 Chelin
正常组	378.14 ± 29.90	411.78 ± 32.09
模型组	359.72 ± 10.54*	372.06 ± 44.19*
逍遥散组	388.98 ± 18.46 [△]	464.43 ± 55.12 ^{△△}

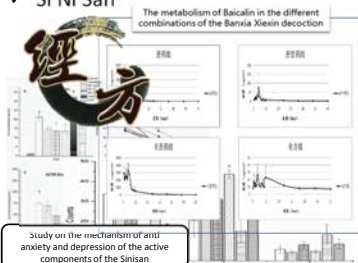
Beijing University of Chinese Medicine

Research on Mechanism and Material Foundation of Herbs and formulations



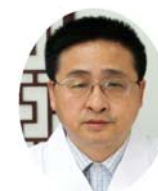
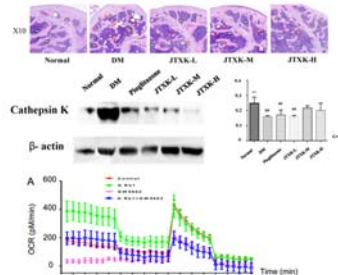
Prof. Qingguo Wang

- ✓ Banxia Xiexin Decoction
- ✓ Si Ni San



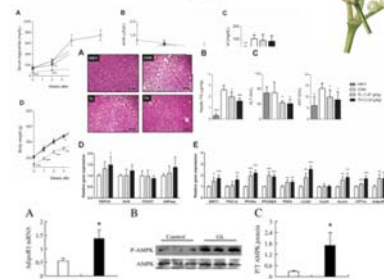
Prof. Sihua Gao

- ✓ Diabetes mellitus



Prof. Tonghua Liu

- ✓ Metabolic syndrome



Beijing University of Chinese Medicine

Clinical Research on Prevention and Treatment of Stubborn Diseases by TCM



Prof. Ying Gao

✓ Cerebral Ischemia

- TCM clinical practice guidelines for ischemic stroke should be developed on the **evidence based medicine**

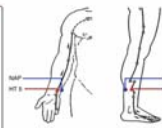
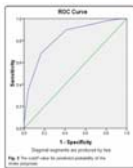
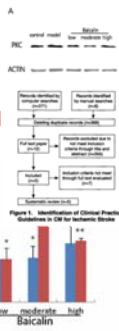
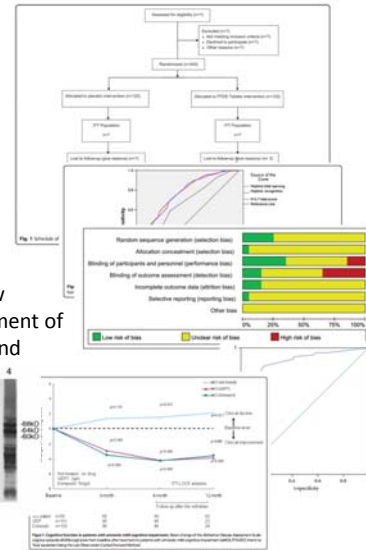
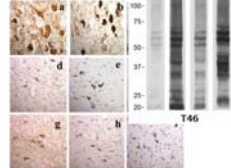


Figure 2. The Location of HT 5 and GB 39 (ACU) and NAP

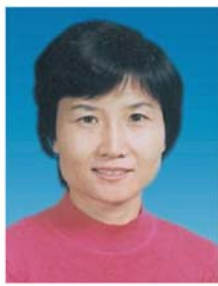


Prof. Jinzhou Tian
Dementia

- **Herbal therapy**: a new method for the treatment of Alzheimer's disease and dementia



The Research Team in China-Japan Friendship Hospital



北京市免疫炎性疾病重点实验室主任

- 建立了糖尿病并发症临床研究平台
- 中医药防治糖尿病并发症药理研究技术
- 成熟完善的分子生物学研究技术平台



临床

药理

平台



中日友好医院
CHINA-JAPAN FRIENDSHIP HOSPITAL

研究平台

The Research Team in China-Japan Friendship Hospital

TCM 研究平台

- 国家中医药管理局肾脏病临床疗效评价重点研究室
- 国家中医药管理局肾脏药理三级实验室
- 国家中医药管理局中西医结合重点学科

学术成绩

- 发表学术论文210篇，SCI期刊收录论文64篇，累计影响因子159.076分，
- 获国家发明专利5项，新药临床批件1项。
- 获省部级科技奖励一等奖2项，二等奖4项。



Our team during 2015-2016 for TCM



- ◆ Second Prize of the State Science and Technology Progress (2016)
- ◆ First Prize of Science and Technology Award, China Association of Chinese Medicine(2015)

- ◆ The Funds for International Cooperation and Exchange of NSFC(2015)
- ◆ The Youth Project of NSFC(2016)
- ◆ The General Project of NSFC(2015)



Publications

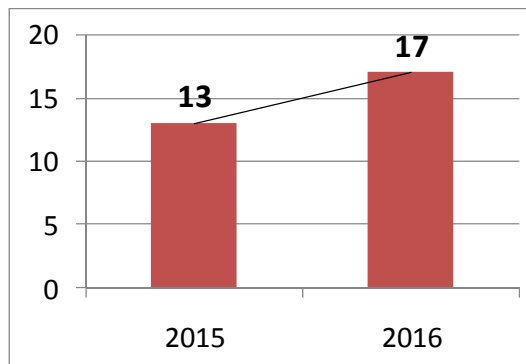
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- Yan M, Wen Y, Yang L *et al. Trials* 17(1), 259 (2016).
- Yang L, Sun X, Zhan Y *et al. Experimental and therapeutic medicine* 11(4), 1410-1416 (2016).
- Wang H, Zhang H, Chen X *et al. International journal of molecular medicine* 37(5), 1290-1298 (2016).
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- Yu QS, Guo WS, Cheng LM *et al. Chinese medical journal* 128(14), 1956-1963 (2015).
- Wen Y, Zhan Y, Liu H *et al. BMC complementary and alternative medicine* 15 155 (2015).
- Li P, Chen Y, Liu J *et al. PloS one* 10(5), e0126027 (2015).
- Sun SF, Zhao TT, Zhang HJ *et al. Clinical and experimental pharmacology & physiology* 42(6), 662-670 (2015).
- Zhao T, Zhang H, Zhang X *et al. Journal of ethnopharmacology* 166 31-41 (2015).

Beijing Hospital of TCM *research situation*

➤ **192** ongoing research projects

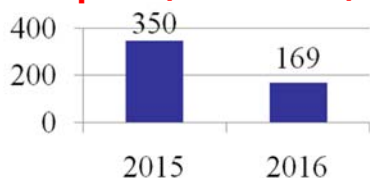
➤ Approved research founding is over **71 million** RMB

Projects supported by National Natural Science Foundation of China

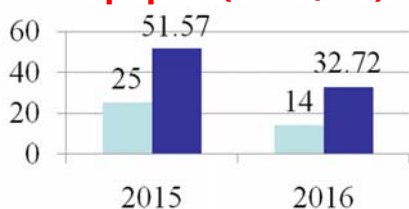


Beijing Hospital of TCM *research situation*

Papers (in Chinese)



SCI papers(Num, IF)



Granted Patents



In the past two years:

- Published **519** papers in Chinese
- Published **39** SCI papers and cumulative impact factor over **84**
6 papers' IF are above 5
- Granted **10** patents
- Granted **14** provincial and ministerial level Sci & Tech Awards

