CONSORTIUM FOR GLOBALIZATION OF CHINESE MEDICINE

中药全球化联盟

Region Report

Beijing-北京

China-Japan Friendship Hospital

Yuan Xu

8.19.2025

中日友好医院
CHINA-JAPAN FRIENDSHIP HOSPITAL

Beijing	Affiliate	Team
1	China Academy of Chinese Medical Science	Luqi Huang
2	Academy of Military Medical Sciences	Yue Gao
3	Beijing University of Chinese Medicine	Wei Wang
4	China-Japan Friendship Hospital	Ping Li
5	Peking University	Min Ye
6	Chinese People's Liberation Army (PLA) General Hospital	Xiaohe Xiao

1. Molecular mechanism of “excellent shape and quality” (优形优质) about the “daodi” herbs(道地药材)

Molecular mechanism of the variation of "excellent shape and quality" of American ginseng in cultivating in China

Prof.黄璐琦

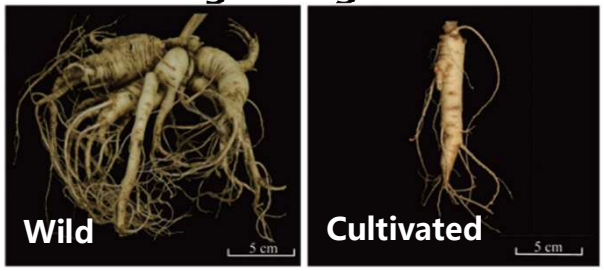
Prof.Yuan Yuan袁媛

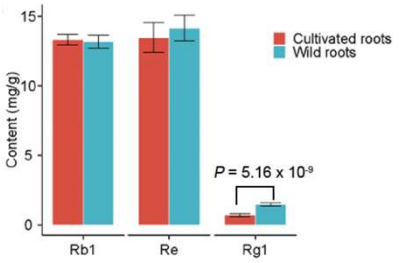
China Academy of Chinese Medical Science

Selected as one of the top ten academic advances in traditional Chinese medicine in 2024

1. Molecular mechanism of “excellent shape and quality” （优形优质）about the “daodi” herbs(道地药材)

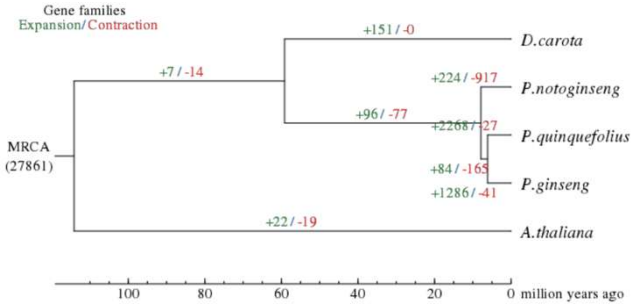
- **variation of "excellent shape and quality" of American ginseng in cultivating in China**





Variation of root shape **Variation of Rg1 amount**

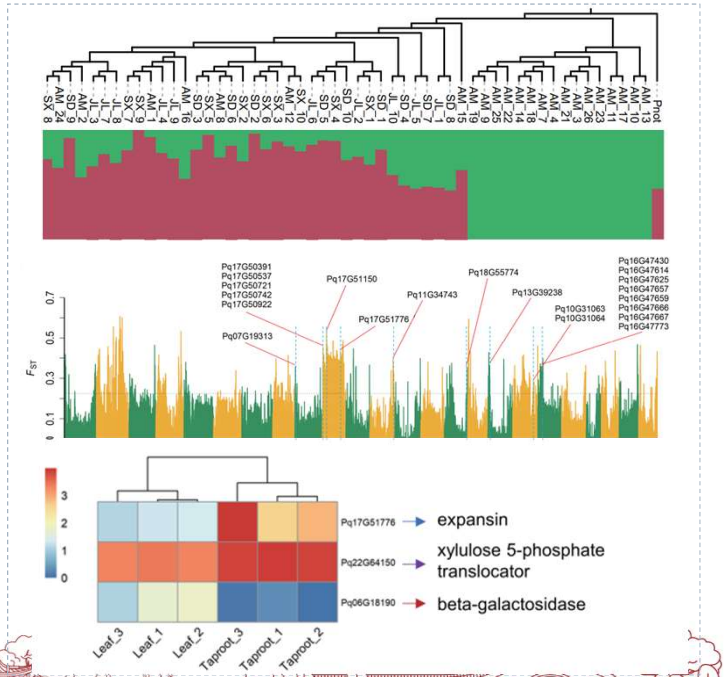
- **Comparative genomics analysis:The root formation of American ginseng is related to cell wall development**



GO ID	GO Term	Adjusted Pv	Gene Number
GO:0051274	beta-glucan biosynthetic process	5.04E-74	78
GO:0030244	cellulose biosynthetic process	3.75E-44	50
GO:0009725	response to hormone	1.31E-33	32
GO:0006075	(1->3)-beta-D-glucan biosynthetic	2.14E-31	28
GO:0006952	defense response	7.11E-18	37
GO:0005975	carbohydrate metabolic process	5.75E-10	92
GO:0050896	response to stimulus	1.59E-05	90
GO:0007165	signal transduction	7.86E-04	42
GO:0000148	1,3-beta-D-glucan synthase complex	2.14E-31	28
GO:0003843	1,3-beta-D-glucan synthase activity	1.55E-28	28

西洋参中细胞壁发育相关基因家族显著扩张

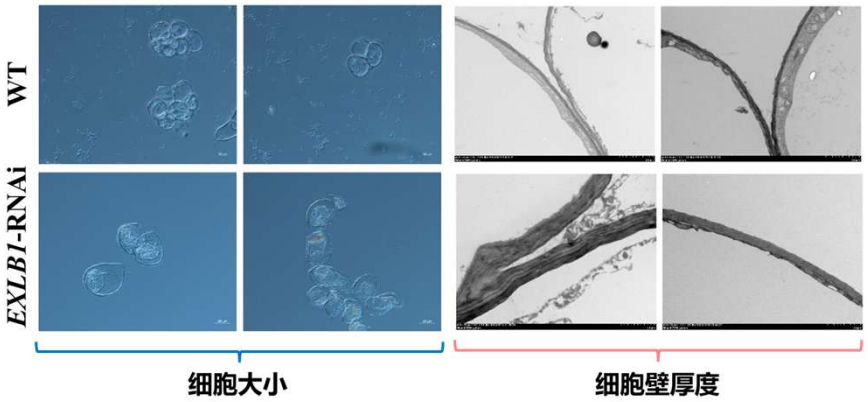
- **Population genetic structure analysis：The core gene regulating variations in "excellent shape and quality" is Expansin-like gene family**



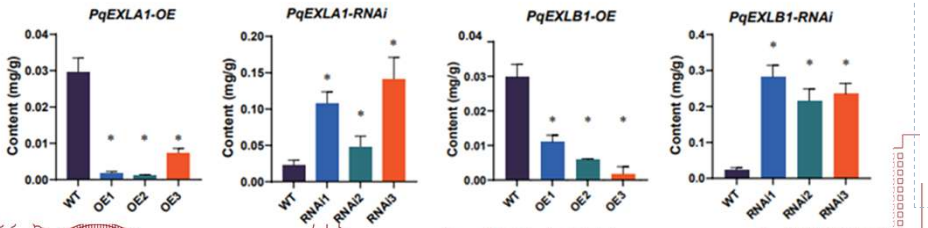
Wang ZP, Huang LQ*, Yuan Y*, *et al*. *Plant Biotech J*, 2024

1. Molecular mechanism of “excellent shape and quality” (优形优质) about the “daodi” herbs(道地药材)

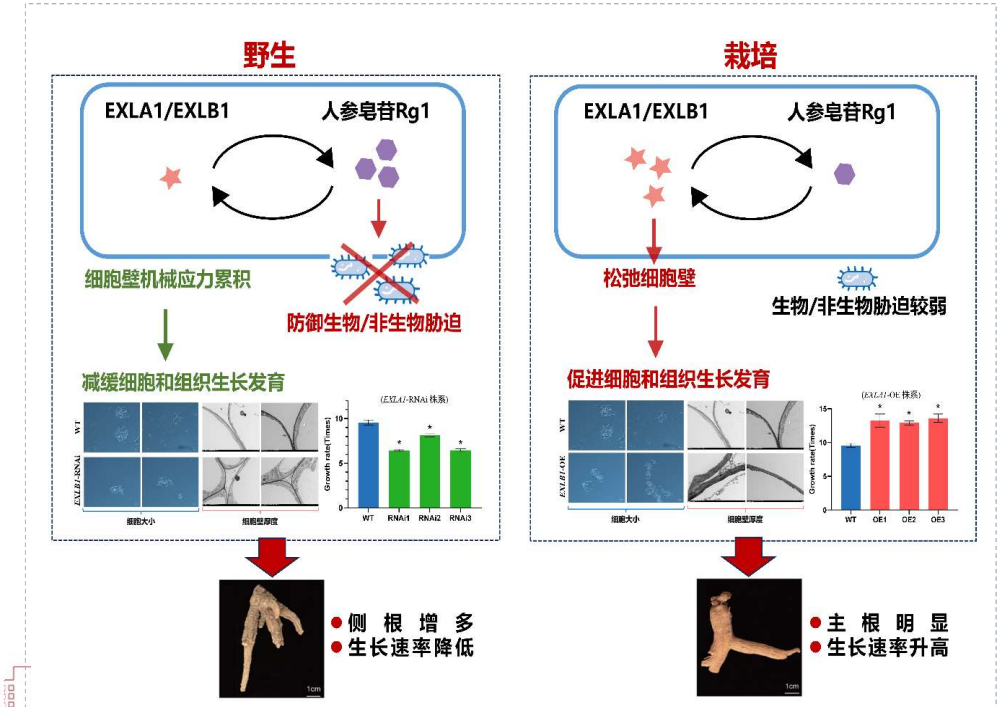
- ***EXLA1* and *EXLB1* Significantly promotes the cell size and cell wall thickness**



- ***The expression of EXLA1 and EXLB1 antagonizes ginsenoside Rg1 biosynthesis***



- ***EXLA1* and *EXLB1* are hub genes regulating the growth-defense balance**



2. Research on Pharmacology, Toxicology of Traditional Chinese Medicine

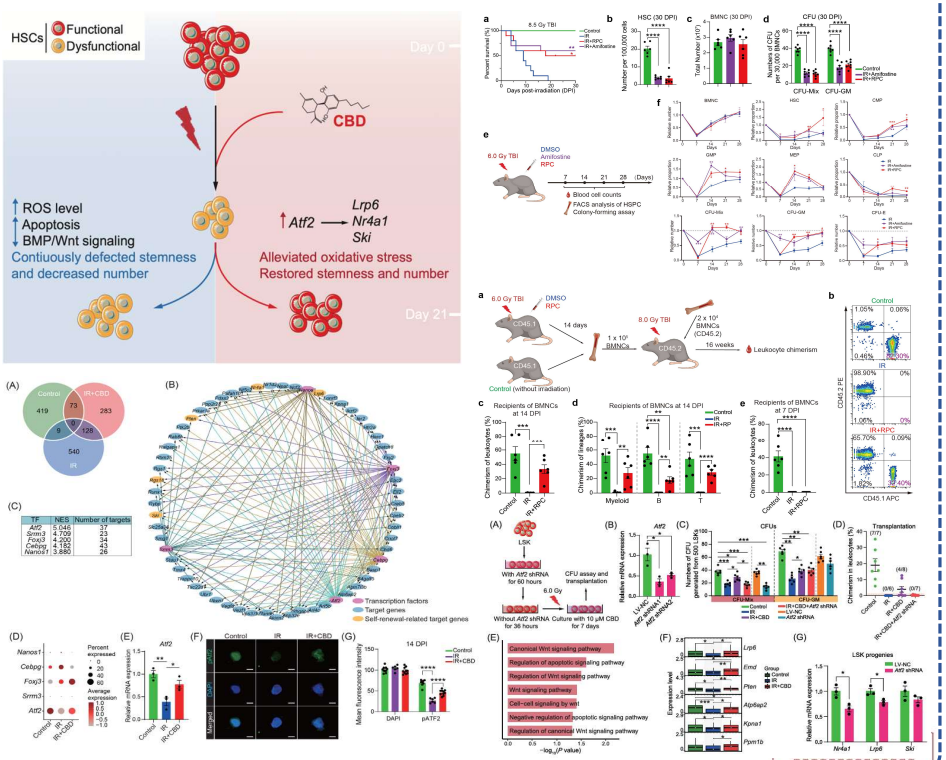
Research on the Prevention and Treatment of Acute Radiation Injury with Traditional Chinese Medicine

Professor Gao Yue（高月）
Beijing Institute of Radiation Medicine(BIRM)

Selected as one of the top ten academic advances in traditional Chinese medicine in 2024

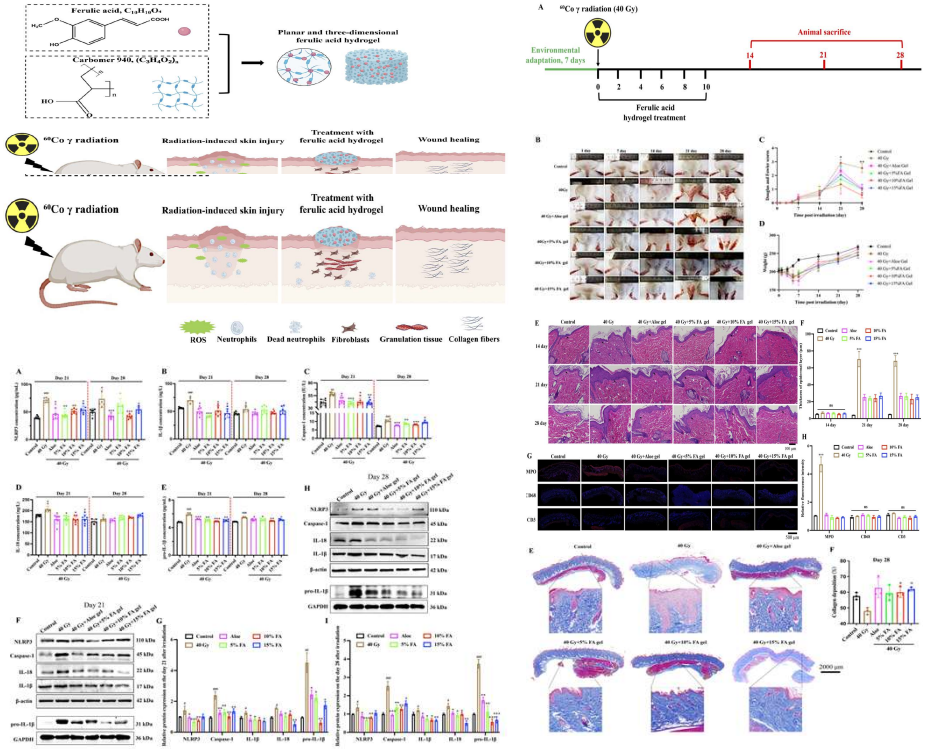
2. Research on Pharmacology, Toxicology of Traditional Chinese Medicine

Eucidated the molecular mechanism by which cannabidiol (CBD) promotes the recovery of hematopoietic radiation injury



Gao Yue et al., *MedComm*, 2024 IF=10.7

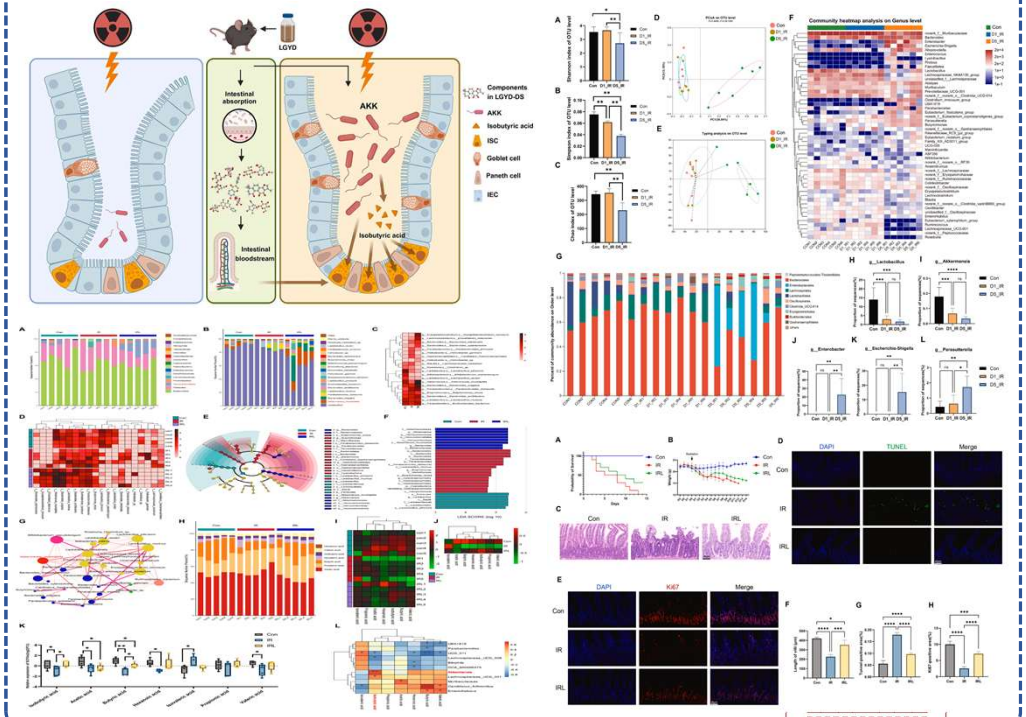
Ferulic acid hydrogel effectively alleviates inflammation and promotes the recovery of skin radiation injury.



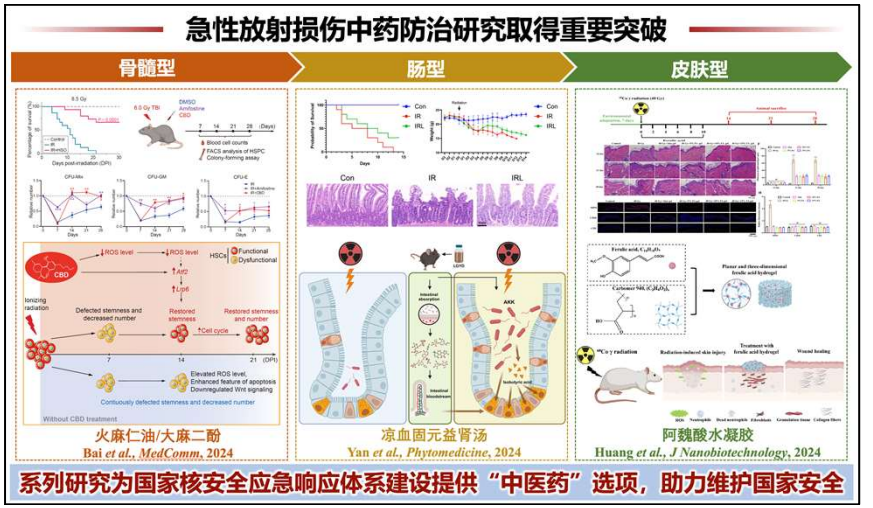
Gao Yue et al., *J Nanobiotechnology*, 2024 IF=12.6

2. Research on Pharmacology, Toxicology of Traditional Chinese Medicine

Liangxue Guyuan Yishen Decoction increases Akkermansia abundance and promotes the repair of radiation-induced intestinal injury

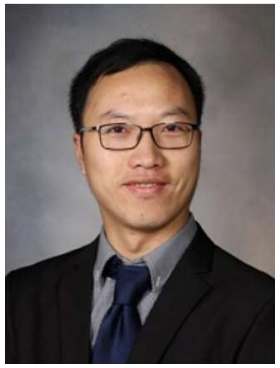


Gao Yue et al., *Phytomedicine*, 2024, IF=8.3



3. Traditional Chinese Medicine for Prevention and Treatment of Cardiovascular Diseases

Toxin Pathogen Theory in Heart Failure: Mechanistic Insights and Drug Discovery



Professor Wei Wang

Professor Yong Wang

Beijing University of Chinese Medicine

Selected as one of the top ten academic advances in traditional Chinese medicine in 2024

3. Traditional Chinese Medicine for Prevention and Treatment of Cardiovascular Diseases

单用清热解毒中药有效

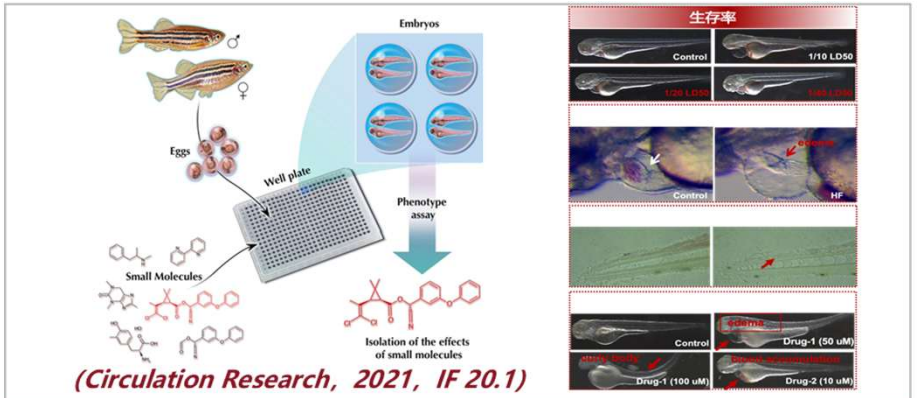
配伍清热解毒药有效

临床发现毒邪的症状群


中华中医药学会
中华中医药学会专家共识
发布公告
China Association of Chinese Medicine
Announcement for Experts Consensus

《心力衰竭毒邪证诊断专家共识》

TCM Syndrome of Heart Failure Innovation: Toxin



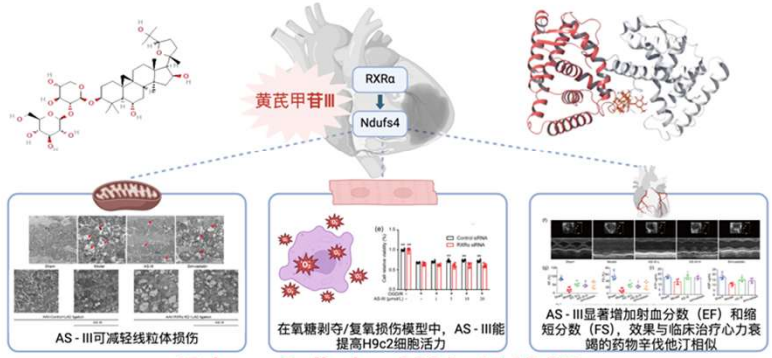
(Circulation Research, 2021, IF 20.1)

Method innovation: Zebrafish embryo model, high-throughput screening of small molecules in traditional Chinese medicine

- 与北京同仁堂公司签署技术转让，完成成果转化
- 获国家药品监督管理局药物临床试验批件

Treatment methods Innovation:Detoxification therapy for heart failure

机制创新



(Science Bulletin, 2024, IF 19.87)

Mechanism Innovation:Huangqi glycoside III specifically activates RXR α to alleviate heart failure symptoms

4. Qijian Granule (芪箭颗粒，糖肾方) has made a series of achievements in treating complications of diabetes

Professor Ping Li
China-Japan Friendship Hospital

Transfer funds of 50 million RMB in 2025

Selected as one of the top ten academic advances in traditional Chinese medicine in 2022

4. Qijian Granule (芪箭颗粒，糖肾方) has made a series of achievements in treating complications of diabetes

Professor Ping Li
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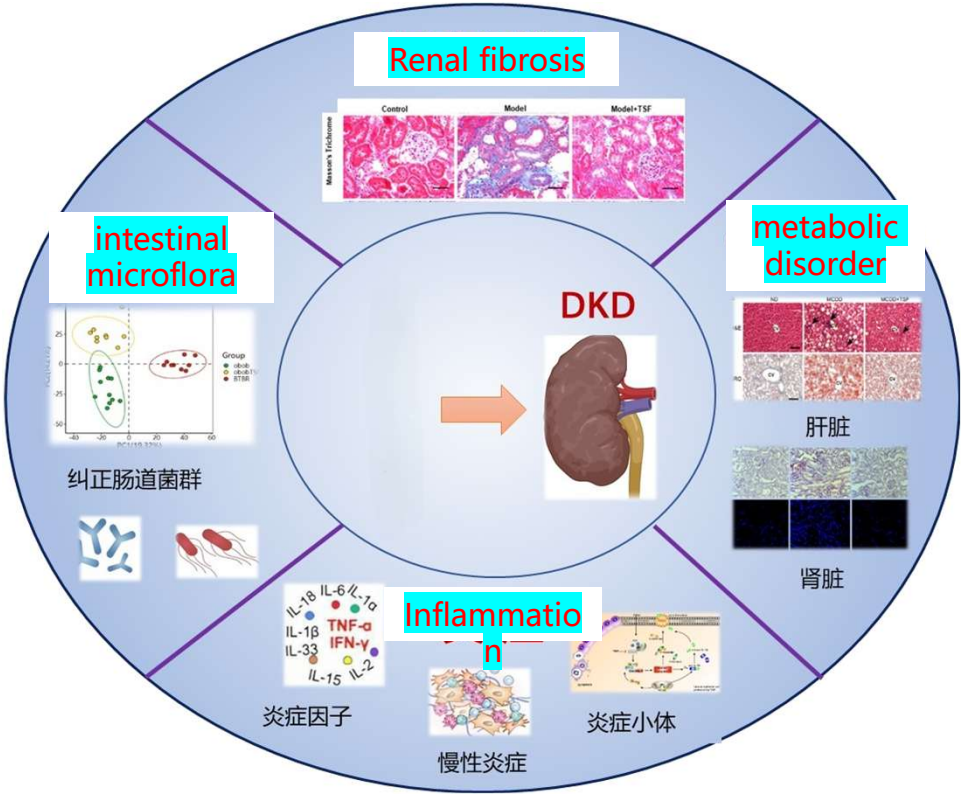

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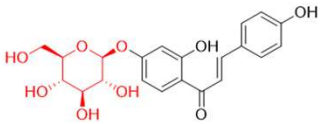
34.Zhao T, et al: Biomed Pharmacother. 2020, 129:110325.
35.Chen P, et al: Evid Based Complement Alternat Med. 2017:4064156

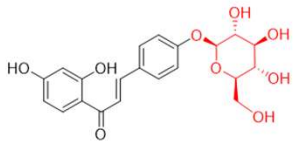
5. Discovery of active ingredients in traditional Chinese medicine and their biosynthesis research

Professor Min Ye
Peking University

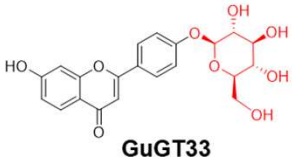
黄酮氧苷



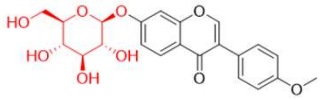
GuGT37
ACS Synth Biol (2018)



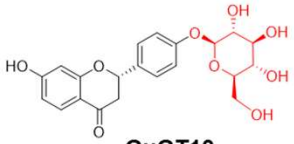
GuGT10
ACS Synth Biol (2018)



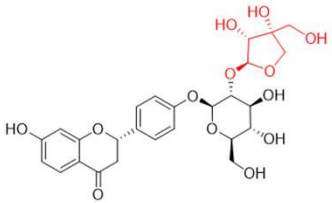
GuGT33
ACS Synth Biol (2018)



GuGT6
ACS Synth Biol (2018)

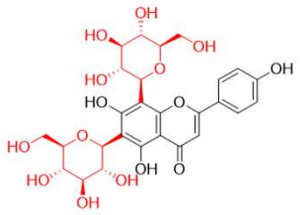


GuGT10
ACS Synth Biol (2018)

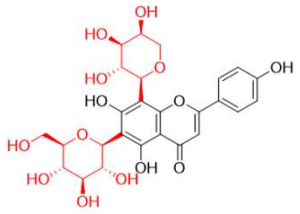


GuApiGT
Nat Commun (2023)

黄酮碳苷

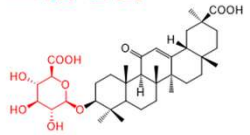


GgCGT
JACS (2020)

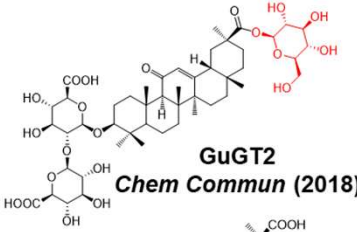


GuCGTa/b
PNAS (2020)

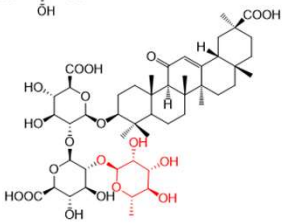
三萜皂苷



GuGT14
ACS Synth Biol (2018)



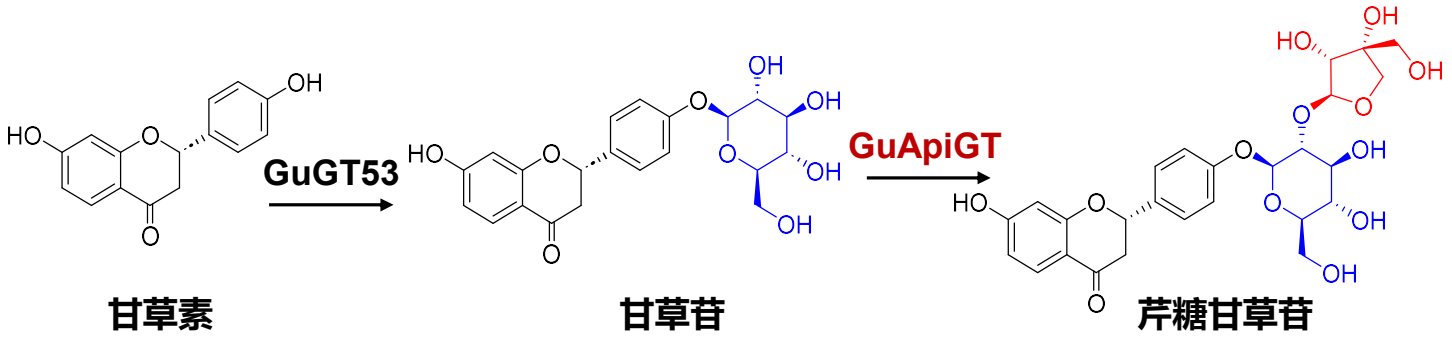
GuGT2
Chem Commun (2018)

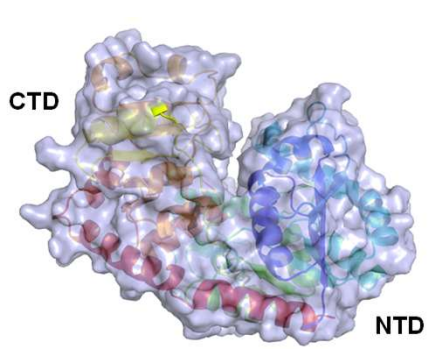


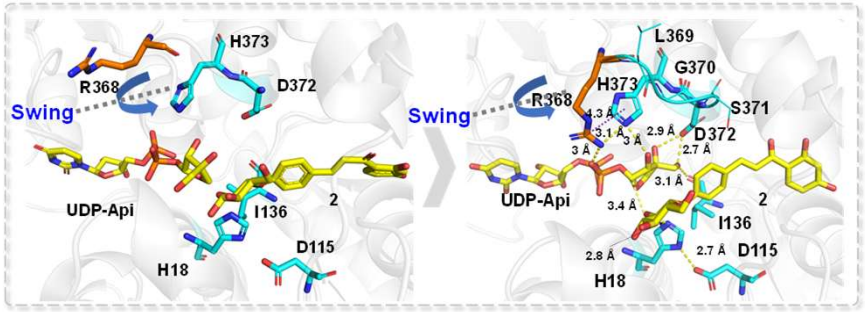
GuRhaGT
Chem Commun (2022)

Analysis of key enzymes involved in the biosynthesis of major glycosides in licorice(甘草)

5. Discovery of active ingredients in traditional Chinese medicine and their biosynthesis research







GuApiGT	W	```	H	C	G	A	A	S	```	P	R	L	G	S	D	H
SbCGTa	W	```	H	C	G	W	N	S	```	P	Q	H	G	`	D	Q
SbCGTb	W	```	H	C	G	W	N	S	```	P	P	H	G	`	D	Q
Sb3GT1	W	```	H	C	G	W	N	S	```	P	F	F	G	`	D	Q
TcCGT1	W	```	H	C	G	W	N	S	```	P	L	Y	A	`	E	Q

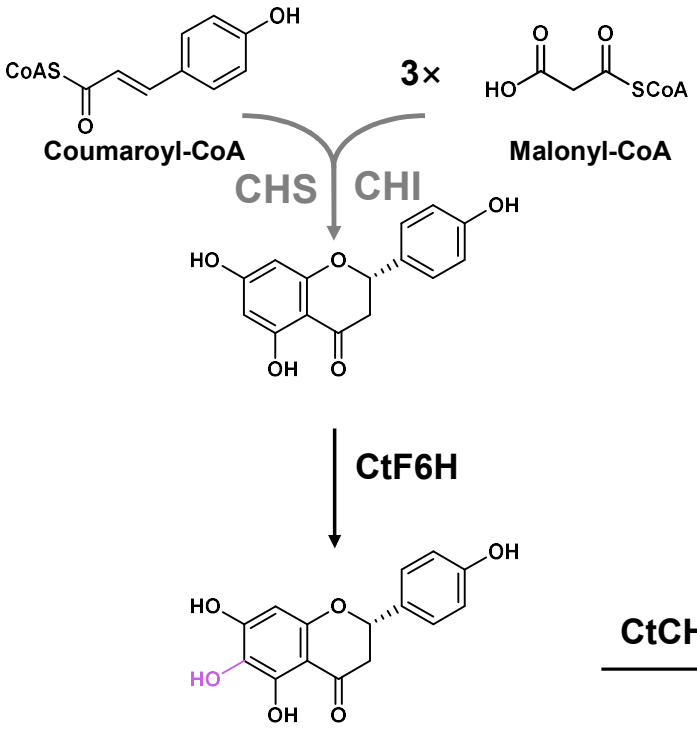
Identification of GuApiGT, the first phenolic apisugar transferase in the plant kingdom, from licorice, and completion of the biosynthetic pathway analysis of apisugar glycyrrhizin, a cough suppressant component in licorice.

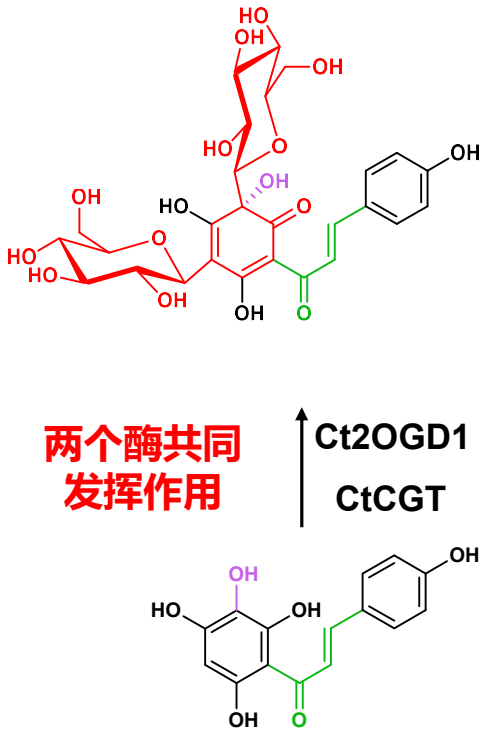
5. Discovery of active ingredients in traditional Chinese medicine and their biosynthesis research

Carthamus tinctorius

(Asteraceae)

红花





Analysis of the biosynthetic pathway of hydroxysaffron yellow pigment A

Wang ZL, *et al*. ***Nat. Commun.*** 2025, *16*, 4489.

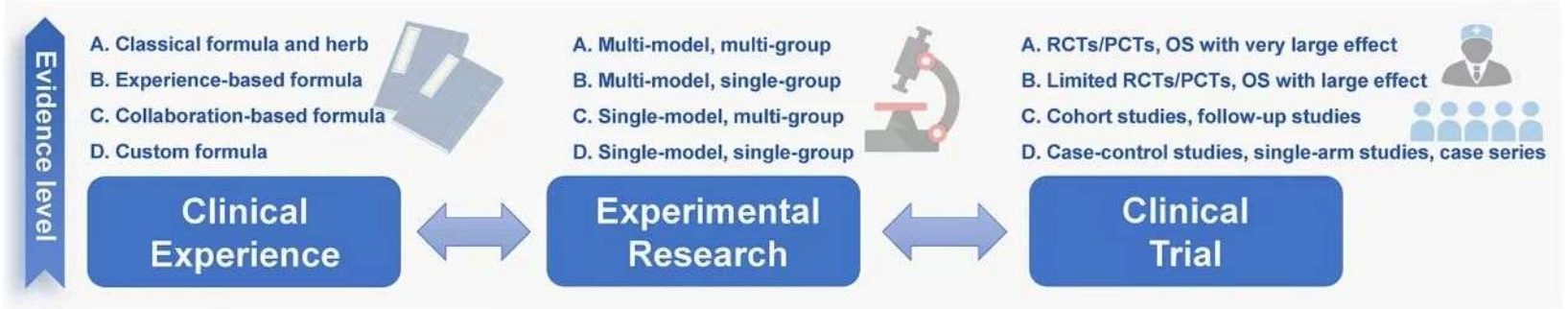
6. integrated evidence chain-based effectiveness evaluation of traditional Chinese medicine, iEC-Eff

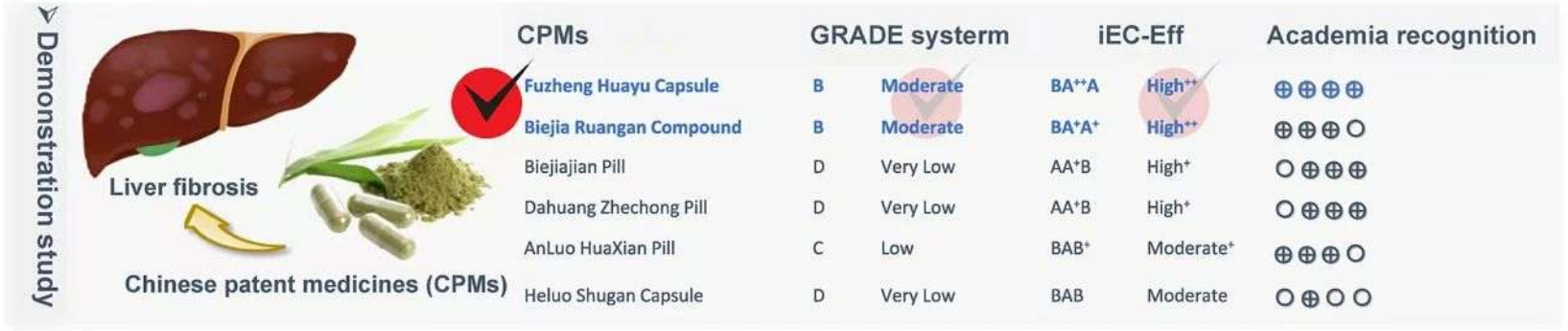
解放军总医院 医学院
CHINESE PLA GENERAL HOSPITAL
CHINESE PLA MEDICAL SCHOOL

中药有效性评价新策略和方法体系——“整合证据链法”

iEC-Eff: Novel Strategies and Methodologies for TCM Efficacy Evaluation

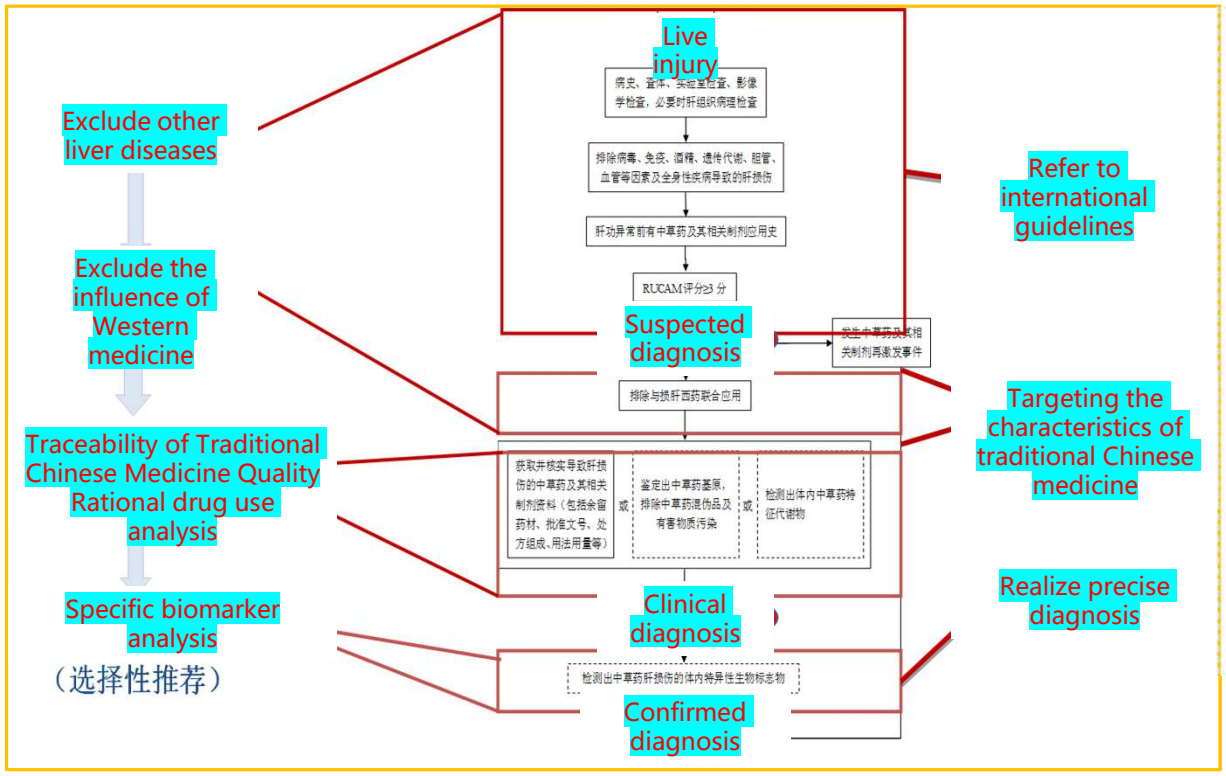
Professor
Xiao-he Xiao
301 Hospital





CPMs	GRADE systerm		iEC-Eff		Academia recognition
Fuzheng Huayu Capsule	B	Moderate	BA⁺⁺A	High⁺⁺	⊕⊕⊕⊕
Biejia Ruangan Compound	B	Moderate	BA⁺A⁺	High⁺⁺	⊕⊕⊕○
Biejiajian Pill	D	Very Low	AA⁺B	High⁺	○⊕⊕⊕
Dahuang Zhechong Pill	D	Very Low	AA⁺B	High⁺	○⊕⊕⊕
AnLuo HuaXian Pill	C	Low	BAB⁺	Moderate⁺	⊕⊕⊕○
Heluo Shugan Capsule	D	Very Low	BAB	Moderate	○⊕○○

6. iEC-Eff：Drug-induced liver injury(DILI)



Dr. Neil Kaplowitz 教授
美国南加州大学肝病中心主任
美国肝病研究学会(AASLD)前主席
美国肝病研究学会 DILI 学组主席

The new HILI guidelines published in this issue present a logical 3-tier 9-step approach to diagnosis. As noted above, first and foremost issue is to suspect the diagnosis. The first tier and the first 4-steps are practical and should be achievable in all cases. The progression from suspected (possible) to clinical diagnosis (probable/likely) and then to confirmed diagnosis (definite) is certainly logical and ideal.

In summary, HILI is an important problem and guidelines for diagnosis and treatment by the working group represents a major step in developing an organized, systemic approach to HILI.

整合证据链法和三级诊断标准为草药和膳食补充剂(HDS)肝损伤鉴别诊断提供了创新且合理的解决方案

Transformation the diagnosis of drug-induced liver injury from subjective experience exclusion to objective evidence chain confirmation

Selected as one of the top ten academic advances in traditional Chinese medicine in 2024

Thank you for your attention!

China-Japan Friendship Hospital

Yuan Xu

8.19.2025