



King's CICM:

• A research-focused, interdisciplinary initiative of KHP aiming to solve major problems the NHS is facing, through innovation catalysed by integrating traditional Chinese medicine with conventional medicine.

How?

- Breaking down barriers, facilitating dialogues, bridging collaborations;
- Integrating two enduring philosophies of medicine; and
- Integrating expertise & resources from traditional Chinese medicine, conventional medicine and state-of-the-art science & technology.

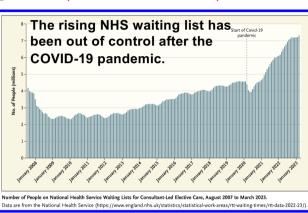
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Why King's CICM? NHS's problems invite integrating function- and anatomy-oriented reasoning, and holistic and reductionist thinking

At Breaking Point or Already Broken? The National Health Service in the United Kingdom (*NEJM* 2023;389:100)

David J. Hunter, M.B., B.S., F.Med.Sci.

"Crisis," "collapse," "catastrophe" — these are common descriptors from recent headlines about the National Health Service (NHS) in the United Kingdom. In 2022, the NHS was supposed to begin its recovery from being perceived as a Covid-and-emergencies-only service during parts of 2020 and 2021. Throughout the year, however, doctors warned of a coming crisis in the winter of 2022 to 2023. The crisis duly arrived.



Findings of a survey by Nuffield Trust and King's Fund (Metro, page 4, 2nd April 2025)

Record 59% no longer satisfied with the NHS

PUBLIC satisfaction with the NHS has had a 'startling collapse', a poll shows. Some 59% of adults say they are dissatisfied with the health service, up seven percentage points in a year and the highest level on record. The British Social Attitudes survey, which covers England, Scotland and Wales, found only 21% are satisfied, compared with 60% in 2019. We cannot solve our problems with the same thinking we used when we created them

~ Albert Einstein

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Our ambition is to establish King's CICM as a platform that

- Attracts/enables KHP staff to engage in ICM innovation;
- Attracts philanthropists to fund projects that matter; and
- Attracts/supports collaborators to join forces with us.

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- Build upon our world-leading health sciences and our glorious tradition in TCM and natural product research;
- Draw inspiration from EU's FP7 GP-TCM Project and the international network thereby established.

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King's CICM will build upon o

An Academic Health Sciences Centre for London

Pioneering better health for all

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With over 40,000 staff and 30,000 students, KHP is one of the largest healthcare education and training centres in Europe

QS World University Rankings, 2025

 \circ Nursing No. 1

o Dentistry No. 4

 $_{\odot}\,$ Life Sciences and Medicine No. 11









Guy's Hospital

Prof Graham Lord and other colleagues' work on aristolochic acid nephropathy and carcinogenesis has made botanical drugs *safer*



Prof Graham Lord KCL Senior Vice President KHP Executive Director

- Lord GM, et al. *Lancet*. 1999;354:481-2
 - Nephropathy caused by Chinese herbs in the UK
- Lord GM, et al. Lancet. 2001;358:1515-6
 Urothelial malignant disease and Chinese herbal nephropathy
- Lord GM, et al. Am J Kidney Dis. 2004;43:e11-7
 <u>DNA adducts and p53 mutations in a patient with aristolochic acid-associated nephropathy</u>
- Cronin AJ, ..., Lord GM. Nephrol Dial Transplant. 2002;17:524-5 Aristolochic acid as a causative factor in a case of Chinese herbal nephropathy
- Gökmen MR, Lord GM. *BMJ*. 2012;344:e4000.

Aristolochic acid nephropathy

Gökmen MR, ..., Lord GM. Ann Intern Med. 2013;158:469-77.

The epidemiology, diagnosis, and management of aristolochic acid nephropathy: a narrative review

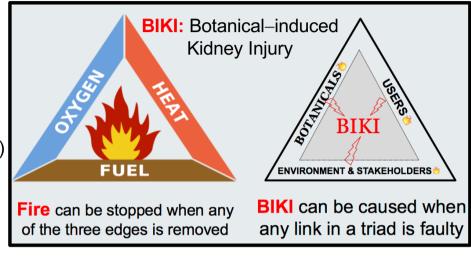
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Taming the fire before enjoying its benefits

DOI: 10.15806/j.issn.2311-8571.2015.0019

Taming the fire of nephrotoxic botanicals demands an integrative strategy

(Holden F, et al. WJTCM 2019;5: 151-163)



Herbal medicines hold promise in addressing unmet needs in nephrology

(Bunel V, et al. *WJTCM* 2015:1:47-66)

Herbal Medicines for Acute Kidney Injury: Evidence, Gaps and Frontiers

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Dr Qihe Xu Director, King's CICM

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World J Tradit Chin Med 2015; 1(3): 47-66

TCM Clinical Research

King's has glorious legacies in botanical research

Quality, Efficacy, Mechanisms



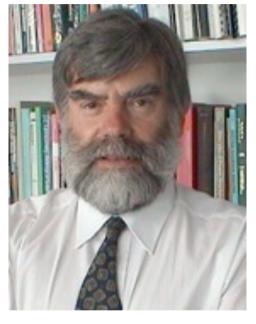
Professor Peter Hylands †

Founding Co-Director, King's CICM Head, Institute of Pharmaceutical Science King's College London



Professor Peter Houghton †

Emeritus Professor of Pharmacognosy Institute of Pharmaceutical Science King's College London



Professor Robert Hider

Emeritus Professor of Medicinal Chemistry Institute of Pharmaceutical Science King's College London

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King's led the FP7 GP-TCM EU-China Collaboration and founding of The GP-TCM Research Association



- □ From a 3.5-year project to a sustainable international platform for collaboration in developing, disseminating and implementing good practices in TCM R&D.
- □ Developed a GP-TCM network of 200 scientists from 24 countries and 110 institutions → GP-TCM RA, a UKbased charity, an international society, an EMA/HMPC Interested Party, which has >300 members worldwide.
- □ Submitted 117 reports to the European Commission proposing TCM a priority for future EU-China cooperation.
- □ 47 papers on good practices, priorities, challenges, opportunities and state of the art of TCM omic studies.





Dr Qihe Xu



Prof. Bruce Hendry

Prof. Peter Hylands † Prof. Peter Houghton †

King's PIs of the FP7 GP-TCM project



Distribution of GP-TCM members within and beyond the EU. <u>Uzuner H, et al. J Ethnopharmacol 2012</u>

GP-TCM RA Membership			
	As of 12 December 2024		
Corporate Members	5		
Institutional Members	8		
Life Members	45		
Honorary Members	15		
Ordinary Full Members	251		
Student Members	36		

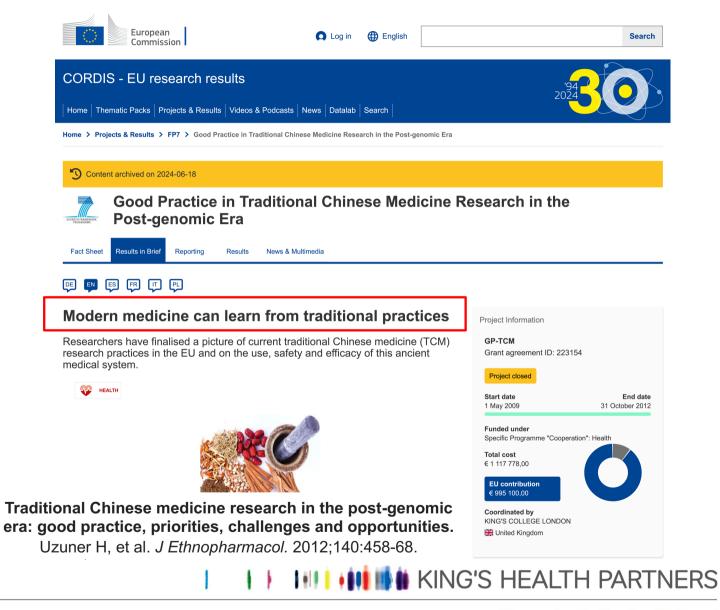
By courtesy of President Report by Professor Clara Lau, who co-chairs the King's CICM Honorary Advisory Board

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"Modern medicine can learn from traditional practices."

The FP7 GP-TCM Project concluded



Integrative Chinese medicine (ICM): our approach to catalysing innovation

Hylands & Xu co-developed a theoretical framework for ICM to catalvze medical & pharmaceutical innovation

- Xu Q, Hylands PJ. Integrative Chinese Medicine. GP-TCM RA Newsletter, 2017
- Xu Q. Professor Peter Hylands' contributions to integrative Chinese medicine. GP-TCM RA Newsletter, Oct. 2019.



and reducing risk factors for aging and age-related disorders (Nature 2009:457:726-730: Cell 2017;168: 775–788; Sci Transl Med 2017;9:eaai8700). In early February, Academician Professors Zhu Chen and Saijuan Chen published a Cell Leading-

Edge Stories article on their journey of TCM-inspired discovery of arsenic dioxide as a new cure for leukaemia (*Cell* 2017:168:556-560). Entitled *Poisoning the Devil*, the article concluded: "Looking back to our scientific career, we have benefited a lot from the integration of western and eastern wisdoms. Integration of western and eastern wisdoms is exactly the approach that GP-TCM RA should adop for the future

This is particularly timely as the Development Plan of the Belt and Road for TCM (2016-2020) has just been jointly issued by China's State Administration of TCM and the National Development and Reform Commission. According to the Plan, China will build 30 centres for TCM around the world, formulating 20 international standards of TCM, registering 100 kinds of TCM products and setting up 50 exchange and cooperation bases of TCM by 2020. Five cooperation priorities have been proposed

policy coordination, resource sharing people-to-people bonds, technology connectivity and unimpeded trade. Particularly relevant to the GP-TCM RA, it proposed to: Collaborate with renowned universities along the route to bring TCM into the higher education of these countries, expand diploma and postgraduate education and enhance quality of teaching. In countries that are ready, open more TCM-featured Confucius Institute.

Support TCM research organisations and higher education institutions to establish joint laboratories and research centres in countries along the route, to apply internationally advanced modern scientific technologies and methodologies to large-scale scientific collaborations in research of TCM fundamental theories, TCM clinical practice and TCM products, etc. Focusing on common, prevalent and major diseases in countries along the route, carry out evidence-based research, so as to support and guide TCM products to gain entrance to the mainstream market of these countries

"The Plan' entitled in Chinese《中医药"一带一路"发展规划(2016-2020年)》 can be found here: http://mp.weixin.gq.com/s? biz=MzA5Nzc0NDkxOQ==&mid=2649649922&idx=2&sn=dd8b00736a 6be39485b04ed0&cbk

A few weeks ago, China's State Council published a medium- and long-term plan to prevent and treat chronic diseases (2017-2025). The plan aims to improve people's health, lower the onset risks



an important player! Hence, it's completely natural that Peter had championed the King's Centre for Integrative Chinese

Medicine initiative, which aims to integrate wisdoms from the West and the East to catalys innovation and to promote collaboration. It was Peter who first coined the name "King's Centre for Integrative Chinese Medicine". The name

indicates that Chinese Medicine will be the focus of our study and that we will do this via ar integrative approach

It was also Peter who brought the new centre to life. In 2012, upon my annual appraisal, I proposed that my long-term goal was to found a new centre at King's, dedicated to Chinese Medicine-inspired research, education and care. My appraiser Professor Bruce Hendry advised that, if we believed in its value, we should work on it ASAP! And this was agreed by Peter. Together, we worked hard to convey our messages to stakeholders, and one year later, we were invited to present our case to the decision-makers. An excellent speaker, Peter was naturally the best person to present our case He did. And we were officially accepted a King's new initiative in May 2013!

In the following years, Peter chaired 14 follow-up meetings and led the development of a business plan. We conducted omics-guided research of Chinese Medicine, offered Chinese Medicine-related teaching, and trained the first PhD student of our new Centre. By 2016, we have won King's fundraising priority!

Peter had also played important roles nationally and internationally. He was a senior leader of the FP7 GP-TCM Project. Funded 1m Euro by the EU in 2009, it was the 1st ever major EU-China cooperation on Chinese Medicine and it was widely acclaimed a success. As a member of the Steering Committee and Ore for the work packages. Three years later, the GP-TCM Research Association was founded. It quickly grew into a UK-based charity, a reputable international society and an

A report of Peter's Memorial Service is available in the "Special Features" column

archives since 2008; www.op-tcm.org/news-list

Xu developed an ICM approach to nephrology innovation by studying roles of kidney defence (Healthy gi) & metabolic (Yang gi) mechanisms in AKI & CKD

• Xu Q. Let traditional wisdom inspire: a nephrologist's view. GP-TCM RA Newsletter, Aug. 2019



renal transplantation. The incidence of AKI is on the rise and mortality associated with AKI is high Data from the USA, for instance, indicate that burden of CKD increased 53% from 2002 to 2016 outpacing any other noncommunicable diseases² and by 2030, the burden of end-stage kidney ase will once again increase 29-68%³. Indeed, CKD is predicted to become a top-5 cause of mortality by 2040 worldwide

As a nephrologist and a renal scientist for thirty years, I have been frustrated by the fact that existing strategies are failing to prevent AKI, to stop AKI transition to CKD and to prevent CKD progression to end-stage kidney disease

.

"Modern medicine can learn from traditional practices" concluded the FP7 GP-TCM consortium, EU's first Coordination Action on modernisation of TCM⁵. As the PI of the project, I have been invited to contribute a TCM-inspired Special Article to $Nephron^{\beta}$, in which I propose that innovation in nephrology can be catalysed by the wisdom from Yellow Emperor's Inner Canon: "When there is sufficient protective qi inside, pathogenic factors have no way to hurt the body: when pathogenic factors cause damage, the internal *qi* must be deficient." Herein, *qi* means the internal mechanisms of the body that defend against attack6

Qihe first published his hypothesis as a poster at UKKW2018 I propose that deficient understanding of renal defence

mechanisms is a key blind spot in modern nephrology and the collecting duct meets many criteria as a critical renal protector against injury; It's ideally located to protect the entire kidney; it has specialised defending cells, molecules and signalling; it senses and responds to danager, and it appears to be a convergence point of regulation by mediators of AKI and CKD. Hence, AKI/CKD must be considered in light of not only attacks to nephrons, but also changes of defence mechanisms in the collecting duct⁷. To protect endogenous defence and to normalise repressed defence can then be developed as novel strategies for prevention and treatment of AKUCKD, as the Nobel-Prize winning cancer immunotherapies do⁷

Nephron is the original journal of nephrology that has been published continuously ever since 1964 and was the original official journal the International Society of Nephrology⁸. An invited TCM-inspired Special Article by the journal indicates that, if properly communicated, a TCM-inspired innovation can be welcomed internationally and this, in turn, may make a special contribution in forging tomorrow's medicine.

After publishing my hypothesis as a poster at the UK Kidney Week (UKKW) 2018, the hypothesis was chosen as the theme of a standalone 60-minute session at the UKKW June 2019 in Brighton. Commenting on my talk, Mrs Elaine Davies, Research Director of Kidney Research UK, twittet "Interesting thought, provoking talk", followed by Dr Mark Dockrell, a renal scientist: "Real lateral thinking and a unique approach to a common problem".



"A hypothesis is only as good as the experiments you can design to test it." advised Prof. Sir Rober echler, Senior Vice-President of King's College London and President of the Academy of Medical Sciences I have designed a series of exciting proof-of-concept and translational studies and devised a tking's College London in an epic effort to develop novel diagnosis measures on the defending capacity of the kidney and novel. TCM-inspired, science-based means to "tonify" the kidney so as to prevent and treat AKI and CKD.

. What are the implications of my hypothesis to future R&D of TCM and Chinese materia medical Despite differences between the function-oriented concept of "kidney" in TCM and the anatomica kidney, many functions of the TCM "kidney" have been scientifically proven as functions of the anatomical kidney; regulating water homeostasis, governing the bone through modulating vitamin activation, controlling hematopoiesis through producing erythropoietin and serving as "the fountain of youth" by producing the anti-ageing hormone Klotho. What are the impacts of "kidney"-tonifying TCM drugs on functions of the anatomical kidney? Can some

"kidney"-tonifying TCM drugs boost defence of the anatomical kidney and thus play important roles in AKI/CKD prevention and treatment?

To the wider biomedical and pharmaceutical community, what are the implications of the hypothesis? "Given that nonimmune defence mechanisms are generally overlooked in modern medicine, it is hoped that this Special Article will inspire not only nephrologists, but also other physicians and medical scientists alike, to perceive health and disease in light of the balance and imbalance between attack and defence." as concluded in the Nephron article.



The Nephron Special Article and this editorial are dedicated to the late Prof. Peter Hylands, or founder of King's Centre for Integrative Chinese Medicine and the founding Treasurer of GP-TCM RA for "his irreplaceable mentorship, invaluable collaboration and inspirational encouragement and support^{#6}. I had talked with Peter for a number of times on this hypothesis and he had always beer highly supportive of publishing it to enhance awareness, arouse interest and build collaboration. A Memorial in celebration of Peter's great academic and non-academic contributions will be held at King's College London on 9[®] October. Should you wish to attend, please do let me know. Finally, to read the Nephron paper, please visit: https://www.karger.com/Article/FullText/502452

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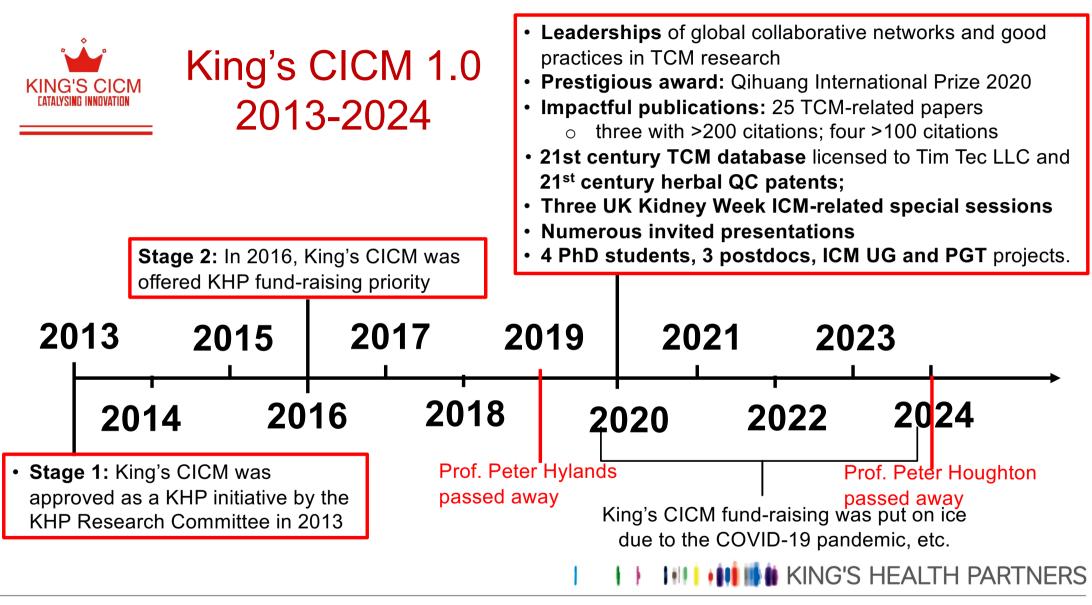




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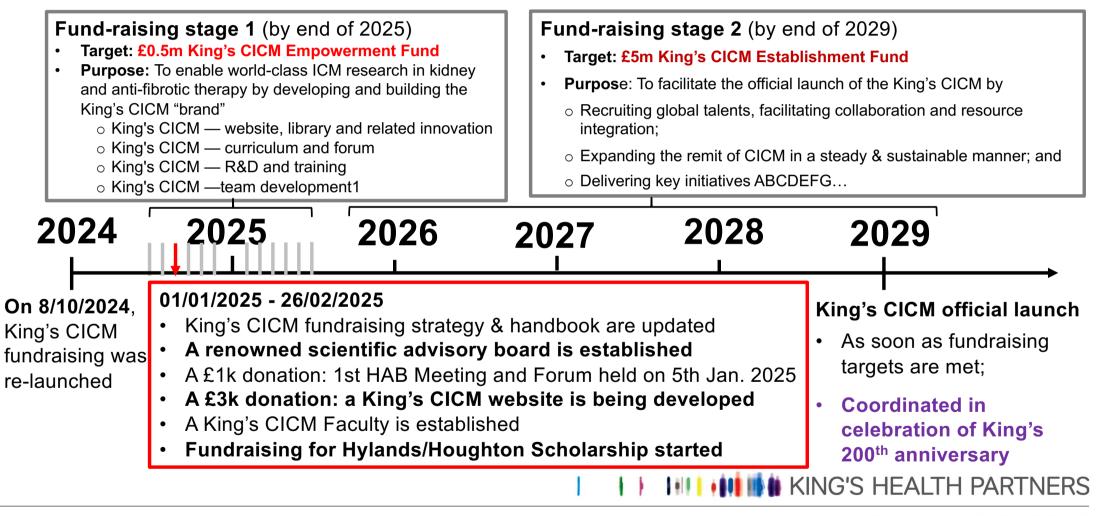
Pioneering better health for all

Maudsley Hospital





King's CICM 2.0: An Updated Plan







Our Staff and Scientific Advisors:

- A Growing List of KHP Members of Staff Specialising in
 - **Cancer and Pharmacology** (Prof. Khuloud Al-Jamal, Prof. Miraz Rahman, Prof. Eric So)
 - **Cardiovascular Biology** (Dr. Haotian Gu, Dr. Richard Siow, Dr. Min Zhang, Dr. Qiuping Zhang)
 - Medical Humanities (Prof. Fay Bound Alberti, Prof. Chris Berry)
 - Medical Statistics, Al and Digital Technology (Prof. Yanzhong Wang)
 - **Nephrology** (Dr. Qihe Xu, ex-Prof. Iain Macdougall, Mr. Mazhar Noor)
 - Patient & Public Involvement (Ms Deborah Johnston)
 - Traditional Chinese Medicine (Ms Titta M. Laattala)
- 51 National & International Leaders in TCM Care, Research & Education
 - Guiding as a Prestigious Honorary Advisory Board co-chaired by Professor Yung-Chi Cheng (Yale) and Professor Clara Lau (HKU)

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As Our Expertise Grows, Our R&D Remit Will Expand to More Health Threats Aligned with WHO & NHS priorities and Patient & Public Needs



Ulyallization		Executive Board 156th session
Agenda item 7	10 Echrupry 2025	EB156(20)
	10 February 2025	

2. REQUESTS the Director General:

to advance kidney disease as a noncommunicable disease of increasing global priority, in addition to cancer, cardiovascular diseases (heart disease and stroke), diabetes and respiratory diseases, as well as mental health, which have been recognized as the major causes of death and disability;

https://apps.who.int/gb/ebwha/pdf_files/EB156/B156_(20)-en.pdf

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PuraPharm PhD Scholarship, Sino-British Fellowship Trust, Bogue Fellowship, International Society of Nephrology, The UK Centre of Chinese Medicine, and our incredibly generous philanthropist donors: Mr. A Chan, Mr. Z He, Dr. L Zhao, Dr. D Jiang

Co-workers

- 51 Members of the Honorary Advisory Board (chaired by Prof. YC Cheng, Yale, and Prof C Clara, HKU)
- A growing list of King's CICM Faculty Members: Prof. FB Alberti, Prof. K Al-Jamal, Prof. C Berry, Dr. H Gu, Ms. TM Laattala, Prof. IC Macdougall. Mr. M Noor, Prof. KM Rahman, Dr. R Siow, Prof. ECW So, Prof. Yanzhong Wang, Dr. Q Xu, Dr. M Zhang, Dr. Q Zhang, ...
- A growing list of internal and external collaborators: Prof K Brown (KCL), Mr. G He (CCMUK), JB Kopp (NIH), MSJ Simmonds (Kew), ZZ Zhao (HKBU), L Fu (CACMS), S Gao (Cambridge University), C Peng (CDUTCM), Q Wu, WB Liu (BUCM), PD Wilson (UCL), F. Tam (Imperial), D Fraser (Cardiff), ...
- Special thanks go to the KHP Fundraising team, especially Mr. O Mangham and Mr. A Page.

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