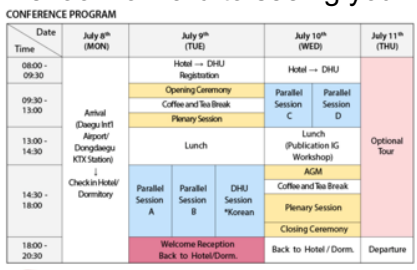
The May 2019 Newsletter of
The GP-TCM Research Association

Special Features

New 1. **Final reminder! Deadline for abstract submission to the 7th GP-TCM RA Annual Meeting (Daegu, South Korea, 8-11 July 2019) has been extended to 31 May for late-breakers!** Online registration is now open! For more details, please visit our website: http://www.gp-tcm.org/event/7thannualmeeting/

We look forward to seeing you in July in Daegu, South Korea!


CONFERENCE PROGRAM

Date / Time	July 8th (MON)	July 9th (TUE)			July 10th (WED)		July 11th (THU)
08:00 - 09:30	Arrival (Daegu Int'l Airport/ Dongdaegu KTX Station) ↓ Check-in Hotel/ Dormitory	Hotel → DHU Registration			Hotel → DHU		Optional Tour
09:30 - 13:00		Opening Ceremony			Parallel Session C	Parallel Session D	
		Coffee and Tea Break					
		Plenary Session					
13:00 - 14:30		Lunch			Lunch (Publication IG Workshop)		
14:30 - 18:00		Parallel Session A	Parallel Session B	DHU Session *Korean	AGM		
					Coffee and Tea Break		
					Plenary Session		
					Closing Ceremony		
18:00 - 20:30		Welcome Reception Back to Hotel/Dorm.			Back to Hotel / Dorm.		Departure

New 2. **Warmest congratulations go to Prof. Tingdong Zhang and Prof. Zhu Chen for being awarded the first Yiling Integrative Medicine Award** at the 2019 China Integrative Medicine Congress, Xi'an, on 28th April 2019. The award is a great recognition to their TCM-inspired research bringing arsenic treatment into a worldwide standard therapy of leukaemia.

https://mp.weixin.qq.com/s/igAY0bwArjUIpHTOX7uedw (中文)

New 3. **HKBU's Cheung On Tak International Award for Outstanding Contribution to Chinese Medicine now open for nominations**

Established by the School of Chinese Medicine at Hong Kong Baptist University (HKBU) in 2011, the biennial Cheung On Tak International Award for Outstanding Contribution to Chinese Medicine aims to recognise scientists and scholars with groundbreaking and internationally recognised achievements in advancing the internationalisation of Chinese medicine or Chinese medicine research. The Fifth Cheung On Tak International Award for Outstanding Contribution to Chinese Medicine is now accepting nominations until 3 July 2019.

With its rapid development in different parts of the world, traditional Chinese medicine is playing an increasingly important role in the health care systems of many countries. HKBU therefore established the Award with a view to fostering the development as well as the internationalisation and modernisation of Chinese medicine for the benefit of the global community.

Nominations from individual scholars and local and nonlocal academic institutions such as universities and research institutes, or relevant

第五届张安德中医药国际贡献奖

传统中医药在世界各地急促发展，在多个国家的医疗保健制度中所扮演的角色日趋重要。香港浸会大学中医药学院自2011年起设立中医药国际贡献奖，目的是借着表扬在推动中医药国际化或在中医药研究领域取得具突破性及获国际认可的成就的科学家和学者，促进中医药的现代化和国际化，同时亦推动中医药的发展，惠泽全球。

承蒙张安德慈善基金慷慨捐献，香港浸会大学中医药学院得以设立此奖项，特以「张安德中医药国际贡献奖」命名，以彰善举。奖项每两年颁发一次，每届颁发奖项给一至二名学人。每届奖金总额为港币五十万元。

departments/councils or academic societies at or above the provincial/ministerial level in Mainland China, are welcome.

A distinguished Panel of Adjudicators comprising renowned scholars and scientists in related fields will select the awardee(s) on the basis of the nominees' contributions to the Chinese medicine sector, achievements in advancing the internationalisation of Chinese medicine, and academic/professional influence in the international arena.

The Fifth Award carries a monetary prize of HK$500,000. In the event of the conferment of more than one award, the prize money will be shared equally between the awardees. It is expected that the awardees will be selected by the end of 2019 and the award presentationcumlecture by the awardee(s) will be held in 2020.

Details of the Award and nomination form are available at http://scm.hkbu.edu.hk/cm-award. For enquiries, please contact the Award Secretariat (telephone: (852)3411-2077; fax: (852)3411-2902; email: scm@hkbu.edu.hk).

Media enquiries: Kathy Lau of HKBU School of Chinese Medicine (3411 2132) or Mavis Wong of Communication and Public Relations Office (3411 7964).

Highlights of Meetings and Events

New 1. **"Up the Mountain and Besides the Sea Herbal Medicinal Tour on Tung Lung Chau" — "The Bencao of the World, The World's Bencao" series of activities was held in Hong Kong on May 5th 2019 to order to further the appreciation towards materia medica.** On May 5, 2019, the Hong Kong and Macau Alumni and Friends Society of the Beijing University of Chinese Medicine, the Hong Kong Jingluo Medical Association, and the Hong Kong Herbal Medicinal Tour Group organized and successfully held the "Up the Mountain and Besides the Sea Herbal Medicinal Tour on Tung Lung Chau." This event marked the largest yearly gathering for healthcare professionals in Hong Kong with over 200 people participating including the leadership of the Hong Kong Liaison Office and the Hong Kong Department of Health. The main goal of the event was to be with nature and recognize herbal medicine to further the appreciation of materia medica.

Through this event, more than 200 experts and students realised there was Chinese medicine everywhere beyond words and texts. Walking into the fields and through nature, Chinese herbs are plentiful in the mountains. All the participants could learn and share their experiences. This event also allowed the participants to hone professional understanding, deepen friendships, and combine passion and learning. Participants further increased their interest in Chinese medicine through learning the growth of herbal plants, identifying commonly used herbal medicine, and understanding the application and efficacy of the medicinal parts.

http://health.people.com.cn/n1/2019/0509/c14739-31076271.html (中文)

New 2. **The World of Materia Medica – The People and Stories of the Belt and Road—the 12th Beijing Chinese Medicine Culture Publicity Week and the 11th Ditan Chinese Medicine Health Culture Festival were successfully held in Beijing Ditan Park on May 10-12, 2019.** Prof Zhongzhen Zhao, the Associate Dean and Chair Professor of the School of Chinese medicine of Hong Kong Baptist University, was invited as a special guest to participate in the opening ceremony. Prof Zhao is a long-time, well-known scholar engaged in the research of herbal medicine and TCM. With extensive media coverage and colleagues from all fields participating, "Promoting Traditional Culture and Promoting Health Services – Establishing TCM Culture Self-Confidence and Honoring the 70th Anniversary of the Founding of the People's Republic of China" was the theme this year. Meanwhile, Prof Zhao launched the "The World of Material Medica – The People and Stories from the Belt and Road" exhibition. Phoenix Exhibition Wing Co., Ltd. and the School of Chinese Medicine of Hong Kong Baptist University organised this exhibition together, and Prof Zhao provided much of the academic resources for the exhibition contents. The main exhibition was held on Ginkgo Street and Ditan Park's inner alter and showcased an image of the Chinese Medicine Culture Tree. Many renown scholars and experts from home and abroad came to visit, discuss, and learn with Prof Zhao. Over the years, Prof Zhao visited many countries such as Russia, India, Indonesia, the United States, Japan, the UK, Turkey, South Africa, and Brazil. On his journey along the Belt and Road, Prof Zhao has collected many precious records of the people and stories on and witnessed the contributions Chinese medicine has brought to the world. During the Festival, the people and stories along certain countries and regions of the Belt and Road were showcased. From single events, the footprint of Chinese medicine was mapped, reflecting its contribution to the world and human health. After the opening ceremony, Prof Zhao was interviewed by public media such as CCTV and shared his experience in finding the footprints of Chinese medicine around the world. These experiences were then delivered as a speech entitled "The World of Materia Medica and the World's Materia Medica."

https://m.v.qq.com/play.html?vid=w0872g3ij4b&ptag=v_qq_com%23v.play.adaptor%233 （中文）

New 3. **International Symposium on Good Practice in Chinese Medicine Pharmacology -cum- The 2nd International Symposium on Wudang Local Chinese Medicines was Held in Shiyan, China on 18th-19 th May 2019.** (Xuanbin Wang/text and Jun Li/photos). With the theme on "Good Practice in Chinese Medicine Pharmacology", the meeting was organized by Chinese Medicine Branch of Shanghai Pharmaceutical Association, and was co-sponsored by China Academy of Chinese Medical Sciences, Chinese Association of TCM, Hong Kong Pharmacology Society of Chinese Medicines, Chinese Medicine Experimental Pharmacology Branch of China Association of Chinese Medicine, Pharmacology Association of Hubei and Hubei University of Medicine. By drawing together internationally renowned scholars and scientists from all over the world to the Wudang Mountain, the famous Taoist scenery, the meeting was a summit on Chinese Medicine Pharmacology where about 200 experts shared their newest scientific achievements, including six keynote speakers, Prof. Yung-Chi Cheng (Yale), Prof. Hongxi Xu (Shanghai), Prof. Hanjun Tu (Hubei), Prof. Yibin Feng (Hong Kong), Prof. Xiaohe Xiao (Beijing) and Prof. Xiaoxin Zhu (Beijing), and 26 parallel session speakers. Twenty-three young scientists and graduates attended a poster competition, among whom 8 were awarded the first, second and third prizes.

A group photo at the opening ceremony (Left), opening speech by meeting chairman Prof. Hongxi Xu (Upper right) and a photo of Prof. Xuanbin Wang, Prof. Yung-Chi Cheng and Dr. Xincai Hao

New 4. **London-Manchester International TCM Conference was held on 5th May 2019.** The conference was the 4th annual meeting organised by The European Association of Nanjing University of TCM Alumni and was attended by TCM experts from 11 countries.

https://www.meipian1.cn/23f14pq9 (中文)

European Reports

New 1. Editorial. **Net zero by 2050 in the UK.** *Lancet* 2019;393:1911. The Committee on Climate Change (CCC), an independent body that advises the UK Government, published a report on May 2, *Net zero—the UK's contribution to stopping global warming*. Stating that net zero is "necessary, feasible, and cost-effective", the CCC set a target year of 2050 for complete elimination of greenhouse gas (GHG) emissions in the UK. The report provides a comprehensive framework for multiple sectors that the government could feasibly adopt to adhere to the 2015 Paris Agreement and Intergovernmental Panel on Climate Change (IPCC) limits of 1·5–2·0 degrees global warming from pre-industrial levels by 2050.
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)31004-9/fulltext

New 2. Editorial. **Research futures—from 2019 to 2029.** *Lancet* 2019;393:1912. What will the world of research look like in 2029? How will research be funded? What are the pathways to open science? How will researchers work, and what will be the role of technology? How will the research information system change, and what will education look like? On May 2, at a conference organised by the European Health Forum Gastein, and hosted by Wellcome in London (UK), possible drivers shaping the future of research were outlined.
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)31006-2/fulltext

New 3. Vogel G. **German researchers promised a decade of budget increases.** *Science* 2019;364:519. Since Angela Merkel became chancellor in 2005, German research organizations have been the envy of the world, enjoying 3% budget boosts every year, even during economic downturns. Many observers credit the influence of Merkel, who has a Ph.D. in physical chemistry. Although she will step down by 2021, when her term ends, the budget increases will continue: On 3 May, state and federal ministers agreed to 3% yearly increases through 2030—an extra €17 billion over the next decade for organizations such as the Max Planck Society and the grantmaking agency the German Research Foundation. The agreement is also good news for universities and technical schools, traditionally funded by the states. It commits the federal government to a long-term role in university funding, and it includes significant boosts through 2027…
https://science.sciencemag.org/content/364/6440/519?utm

New 4. Horton R. Offline: **The fight for Europe.** *Lancet* 2019;393:2022. Setting off a timely editorial, the Lancet Editor-in-chief wrote: "What does Europe stand for? This question hangs ominously over forthcoming elections to the European Parliament, which will take place on May 23–26, 2019. Europe confronts monumental challenges: economic stagnation, inequality, unemployment, a climate emergency, and erosion of democratic values. Elites are mistrusted, even hated, by millions of voters who feel ignored and reviled by Brussels. Europe has lost its way. As Time Magazine recently put it, Europe is "unravelling". The influential German sociologist, Wolfgang Streeck, has called Europe a "doomed empire". French philosopher Régis Debray, in his pessimistic analysis of Europe (Civilization: How We All Became American, 2019), quotes Paul Valéry, who once asked whether Europe was "a little promontory on the continent of Asia" or "the brain of a vast body". The answer, astonishingly, is still uncertain." The essay concludes: "Europe stands for humanism and the progressive emancipation of humanity. Europe stands for an ideal—social justice. Europe stands for science and scientific revolutions. Europe stands for internationalism. Tacking between the rational and the empirical, Europe stands for a culture of learning. As 374 million people contemplate their voting intentions, the struggle for Europe offers a magnificent opportunity—to redefine a continent that is open and free, one that stands for a sympathetic human solidarity."
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)31081-5/fulltext

Reports on China and Chinese-European Cooperation

New 1. Editorial. **Build a sustainable Belt and Road.** *Nature* 2019;569:5. China's vast Belt and Road Initiative is on course to reshape research in the global south. Science leaders everywhere must work to make it transparent, green and free of conflicts of interest…
https://www.nature.com/articles/d41586-019-01309-0?WT.ec_id=NATURE-20190502&utm

New 2. Masood E. **How China is redrawing the map of world science.** *Nature* 2019;569:20-3. The Belt and Road Initiative, China's mega-plan for global infrastructure, will transform the lives and work of tens of thousands of researchers…
https://www.nature.com/immersive/d41586-019-01124-7/public/pdf/d41586-019-01124-7.pdf

New 3. Masood E. **Scientists in Pakistan and Sri Lanka bet their futures on China.** *Nature* 2019;569:24-7. Researchers are turning to China for support and collaboration as their countries take centre stage in the Belt and Road Initiative.
https://www.nature.com/immersive/d41586-019-01125-6/public/pdf/d41586-019-01125-6.pdf

New 4. Millwood IY, et al. **Conventional and genetic evidence on alcohol and vascular disease aetiology: a prospective study of 500 000 men and women in China.** *Lancet* 2019;396:1831-42. Genetic epidemiology shows that the apparently protective effects of moderate alcohol intake against stroke are largely non-causal. Alcohol consumption uniformly increases blood pressure and stroke risk, and appears in this one study to have little net effect on the risk of myocardial infarction…
https://www.sciencedirect.com/science/article/pii/S0140673618317720?via%3Dihub

https://mp.weixin.qq.com/s/cimKuqzbvZIp9SbuOyZmvw (中文)

New 5. **China releases plan to reduce sugar intake for oral health improvement.** Xinhua | Updated: 2019-02-17. China will make efforts to reduce sugar intake among both children and adults, in a bid to improve the nation's oral health, according to an action plan recently released by the National Health Commission.
http://www.chinadaily.com.cn/a/201902/17/WS5c691603a3106c65c34e9b66.html

https://mp.weixin.qq.com/s/JslqgEtdU1SHE8GxaSAkiA (中文)

New 6. Jiang C, Zhao P. **China should boost basic research in AI**. *China Daily* 2019-03-11. The Government Work Report that Premier Li Keqiang delivered to the national legislature on March 5 emphasized that artificial intelligence (AI) technology be strengthened in emerging industries to improve the core competitiveness of the sector and improve the science and technology industries…
http://www.chinadaily.com.cn/a/201903/11/WS5c85966ba3106c65c34edc97.html

New 7. Horvat M, Gong P. **Science support for Belt and Road.** *Science* 2019;364:513. Last month, at the Second Belt and Road Forum for International Cooperation in Beijing, President Xi Jinping gave an update on China's $US1.3 trillion Belt and Road Initiative (BRI). This massive land, sea, and digital enterprise aims to create improved economic, social, and environmental conditions between China and 126 cooperating countries from Asia, Europe, and Africa through strengthened connectivity by constructing roads, railways, IT networks, power stations, pipelines, airports, and ports. President Xi acknowledged growing international concerns about environmental damage along the BRI. Now, China must commit to addressing these issues. China's use of science and technology (S&T) as an instrument to build BRI relationships should likewise be used to examine and minimize the environmental impacts of BRI projects.
https://science.sciencemag.org/content/364/6440/513?utm

New 8. Cyranoski D. **Chinese hospitals set to sell experimental cell therapies.** *Nature* 2019;_569:170-1. Select elite hospitals in China could soon be able to sell experimental therapies that engineer a patient's own

cells to treat diseases such as cancer — without approval from the nation's drug regulator. The proposal comes three years after the government shut down the sale of unapproved cell therapies following the death of a student who had received such a treatment. The draft policy has prompted mixed responses…
https://www.nature.com/articles/d41586-019-01161-2?WT.ec_id=NATURE-20190509&utm

New 9. **Chinese scientists develop new material for water purification.** *Global Times* 2019-03-04. Chinese scientists have developed a new material that can use light to efficiently and safely purify water. http://www.globaltimes.cn/content/1140800.shtml

New 10. Roussi A. **China charts a path into European science.** *Nature* 2019;569:174-6. As the Belt and Road Initiative spreads to central and eastern Europe, China's investments in research and technology are raising concerns in the West…
https://www.nature.com/immersive/d41586-019-01126-5/index.html

New 11. Chauvin LO, Fraser B. **South America is embracing Beijing's science silk road.** *Nature* 2019;569:177-9. From a secretive space facility to plans for new telescopes, South America is starting to see the scientific impacts of China's global infrastructure expansion…https://www.nature.com/immersive/d41586-019-01127-4/index.html

New 12. Lei R et al. **Reboot ethics governance in China.** *Nature* 2019;569:184-6. The shocking announcement of genetically modified babies creates an opportunity to overhaul the nation's science, argue Ruipeng Lei and colleagues…
https://www.nature.com/articles/d41586-019-01408-y?WT.ec_id=NATURE-20190509&utm

New 13. Jia P and Wang Y. **Global health efforts and opportunities related to the Belt and Road Initiative.** *Lancet Glob Health* 2019;7: PE703-5. To respond to the initiative and promote international collaboration for global health, efforts have been made in Xi'an, China (the starting point of the Silk Road Economic Belt) and in Rotterdam, Netherlands (the endpoint of the Belt). Xi'an Jiaotong University led the establishment of the University Alliance of the Silk Road (UASR) in 2015, which includes 150 universities from 38 countries. The university's Global Health Institute was established to help achieve key national development strategies including the Belt and Road Initiative and to promote international collaboration in health fields…
https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(19)30062-2/fulltext

New 14.Roussi A. **Chinese investments fuel growth in African science.** *Nature* 2019;569:325-6. Africa has emerged as a major partner in China's Belt and Road Initiative, and that is paying dividends for science…https://www.nature.com/immersive/d41586-019-01398-x/index.html

Acupuncture, TCM and Other Traditional Medicine

New 1. Heinrich M et al. **Unblocking High-Value Botanical Value Chains: Is There a Role for Blockchain Systems?** *Front. Pharmacol.* 24 April 2019 | https://doi.org/10.3389/fphar.2019.00396. Blockchain systems are a fast emerging and a currently widely discussed novel strategy for a decentralized cryptographically enhanced digital ledger recording transactions among stakeholders. This perspective paper looks at its potential uses in the context of high value and mostly low volume botanical material traded globally and used as medicines, health foods, in cosmetics and other applications...
https://www.frontiersin.org/articles/10.3389/fphar.2019.00396/full.

New 2. Huang R et al. **The NCATS BioPlanet – An Integrated Platform for Exploring the Universe of Cellular Signaling Pathways for Toxicology, Systems Biology, and Chemical Genomics.** Front. Pharmacol., 26 April 2019 | https://doi.org/10.3389/fphar.2019.00445. Chemical

genomics aims to comprehensively define, and ultimately predict, the effects of small molecule compounds on biological systems. Chemical activity profiling approaches must consider chemical effects on all pathways operative in mammalian cells. To enable a strategic and maximally efficient chemical profiling of pathway space, we have created the NCATS BioPlanet, a comprehensive integrated pathway resource that incorporates the universe of 1,658 human pathways sourced from publicly available, manually curated sources, which have been subjected to thorough redundancy and consistency cross-evaluation. BioPlanet supports interactive browsing, retrieval, and analysis of pathways, exploration of pathway connections, and pathway search by gene targets, category, and availability of corresponding bioactivity assay, as well as visualization of pathways on a 3-dimensional globe, in which the distance between any two pathways is proportional to their degree of gene component overlap. Using this resource, we propose a strategy to identify a minimal set of 362 biological assays that can interrogate the universe of human pathways. The NCATS BioPlanet is a public resource, which will be continually expanded and updated, for systems biology, toxicology, and chemical genomics, available at http://tripod.nih.gov/bioplanet/.
https://www.frontiersin.org/articles/10.3389/fphar.2019.00445/full?utm

New 3. Li C et al. **HLA-B*35:01 Allele is a potential biomarker for predicting *Polygonum multiflorum*-induced liver injury in humans.** *Hepatology*. 2019 Apr 15. doi: 10.1002/hep.30660. *Polygonum multiflorum* (PM) is a well-known Chinese herbal medicine that has been reported to induce inflammation-associated idiosyncratic liver injury. This study found that the HLA-B*35:01 allele is a genetic risk factor and a potential biomarker for PM-induced liver injury in humans.
https://aasldpubs.onlinelibrary.wiley.com/doi/abs/10.1002/hep.30660
https://mp.weixin.qq.com/s/4wJ5tbeAS8ZWDRby9xXMTA (中文)

New 4. **Shanghai-developed drug GV-971, set to hit the market this year, is expected to benefit about 400,000 patients with Alzheimer's disease.** The drug has been developed by Shanghai-based pharmaceutical company Green Valley, and the Shanghai Institute of Materia Medica under the Chinese Academy of Sciences and Ocean University of China. Derived from natural sources, it has completed phase-3 clinical trials, demonstrating it can significantly improve cognitive impairments of patients with mild-to-moderate Alzheimer's.
https://www.shine.cn/news/metro/1905134623/

https://www.shgvp.com/Cn/Index/listView/catid/70.html (中文)

New 5. Zou J et al. **Mechanism of Yang-tonifying herbs distributing along kidney meridians in molecular level by network pharmacology.** *Chinese Traditional and Herbal Drugs* 2019;50:1838-47. The method based on network pharmacology could help to find the key targets and signal pathways of the kidney-*yang* tonifying herbs, which provides useful information and data support for further interpretation of the classification meaning of the kidney-*yang* tonifying herbs in TCM.
http://www.tiprpress.com/zcy/ch/reader/view_abstract.aspx?file_no=20190811&flag=1

https://mp.weixin.qq.com/s/sTrMrthoEE8Y08f5yP9lWQ (中文)

New 6. Yang L et al. **Mechanistic analysis of Astragali Radix in treatment of nephrotic syndrome using network pharmacology**. This research method revealed that the active ingredients of flavonoids and saponins in *Astragali Radix* are the material basis for the treatment of nephrotic syndrome. Its mechanism of action involved anti-oxidative stress, anti-apoptosis and regulation of lipid metabolism.
http://www.tiprpress.com/zcy/ch/reader/view_abstract.aspx?file_no=20190810&flag=1

https://mp.weixin.qq.com/s/p-ElBK-nD42aNYGa_UXbzA (中文)

New 7. **Controversy around the safety matter of injectable TCM products:** https://mp.weixin.qq.com/s/bLVBjTW2btDobK30U9ufBg (中文)

New 8. Jia W, et al. **Systematic review and analysis on the appropriate diseases in clinical treatment with Fu's subcutaneous needling therapy.** *Zhongguo Zhen Jiu* 2019;12;39:111-4. The clinical research articles relevant with Fu's subcutaneous needling therapy (FSN) were retrieved from CNKI, WANFANG, CBM and PubMed databases till January 2018 since the establishment of database. According to the general international criteria of disease classification, the diseases involved in the articles were classified and summarized. In terms of the clinical application and research of FSN, the questions were extracted and commented through expert's consultation. As a result, 412 articles were included. The statistical results of disease spectrum indicated that FSN was adopted in 65 kinds of diseases in 11 systems. Of these diseases, the relevant somatic pain disorders in the musculoskeletal system were the most appropriate. Professor FU Zhong-hua explained that the clinical physicians of FSN should select the muscle-related disorders as the clinical research subject and treat them with normalized manipulation of FSN. The research on FSN is still at the preliminary stage. It needs more high-quality clinical and basic researches to provide the evidences for the therapeutic effects of FSN. https://www.ncbi.nlm.nih.gov/m/pubmed/30672266/

New 9. **Digital Diagnosis: Chinese Medicine in the Wechat Era.** *Radiichina.com* 7 May 2019. How does technology change "traditional" Chinese medicine?
https://radiichina.com/digital-diagnosis-chinese-medicine-in-the-wechat-era/

New 10. Webb N. **How traditional Chinese medicine is being adopted by the West.** *The Sydney Morning Herald 5* May 2019.
https://www.smh.com.au/lifestyle/health-and-wellness/how-traditional-chinese-medicine-is-being-adopted-by-the-west-20190501-p51ivo.html

New 11. Huang J. **My view on injectable TCM drugs—a historic view is needed.** *Dr Huang Jibin's WeChat* 13 May 2019. https://mp.weixin.qq.com/s/FjbO4CcHfnJVRtu4sNJg9g (中文)

Omics in Progress

New 1. Nadeau JH, Auwerx J. **The virtuous cycle of human genetics and mouse models in drug discovery.** *Nat Rev Drug Discov.* 2019;18:255-272. Ongoing studies in many species seek to understand the origins, architecture and consequences of phenotypic variation under normal and dysfunctional conditions, with the aim of identifying targets for intervention that can prevent, stabilize or reverse disease. Some suggest that only humans are appropriate for studying these questions and argue that candidate drug targets identified in mouse models are largely unreliable. Here, we review the vast evidence showing that mouse models continue to make fundamental contributions to our understanding of genetic principles, pathogenic mechanisms and therapeutic modalities. We propose a virtuous cycle in which the power of observational studies and natural experiments in humans are closely integrated with the rigour of true experiments in model organisms.
https://www.nature.com/articles/s41573-018-0009-9

New 2. Wilusz JE. **Circle the Wagons: Circular RNAs Control Innate Immunity.** *Cell* 177:797-9. Circular RNAs are generated at low levels from many protein-coding genes. Liu et al. now reveal that many of these transcripts bind and inhibit the double-stranded RNA (dsRNA)-dependent kinase PKR. Upon viral infection, circular RNAs are globally degraded to release PKR, which becomes activated to aid in the immune response.
https://www.cell.com/cell/fulltext/S0092-8674(19)30439-8?dgcid

New 3. Liu X-L et al. **Structure and Degradation of Circular RNAs Regulate PKR Activation in Innate Immunity.** Cell 2019;177:865-80. The unique structure of circRNAs allows them to bind and regulate the innate immune dsRNA receptor PKR, and misregulation of this process is found in patients with autoimmune disease.
https://www.cell.com/cell/fulltext/S0092-8674(19)30347-2?dgcid

New 4. Vasaikar S, et al. **Clinical Proteomic Tumor Analysis Consortium. Proteogenomic Analysis of Human Colon Cancer Reveals New Therapeutic Opportunities**. *Cell* 2019;177:1035-1049.e19. A systematic proteogenomic analysis of colon cancer reveals vulnerabilities ofpotential clinical value inaccessible from genomic assessment alone.
https://www.cell.com/cell/fulltext/S0092-8674(19)30292-2

New 5. Zhang P, et al. **Dissecting the single-cell transcriptome network underlying gastric premalignant lesions and early gastric cancer.** *Cell Reports* 2019; 27:1934-47. This is a single-cell transcriptomic study on gastric antral biopsies from patients across premalignant lesions and early gastric cancer. The authors construct the single-cell network for epithelial cells across lesions and dissect the molecular characteristics for representative cell types in each lesion.

https://mp.weixin.qq.com/s/020R-1teTgof6r3GtuJ78g (中文)

https://www.cell.com/cell-reports/pdf/S2211-1247(19)30525-X.pdf

New 6. Schubert C. **Technology Feature | Epitranscriptomics: RNA revisited.** *Science* 2019;364: 693-5. RNA is not a "plain" molecule–it is replete with various chemical modifications. Just how many types of modifications exist, where they are located, and what they do is becoming clearer, as researchers hone the tools to examine such questions at the transcriptome-wide level…
https://science.sciencemag.org/content/364/6441/696.2?utm

New 7. Shi et al. **Where, When, and How: Context-Dependent Functions of RNA Methylation Writers, Readers, and Erasers.** *Mol Cell* 2019;74:640-50. Recent years have witnessed a burst of interest in and understanding of RNA modification biology, thanks to the emerging transcriptome-wide sequencing methods for mapping modified sites, highly sensitive mass spectrometry for precise modification detection and quantification, and extensive characterization of the modification "effectors," including enzymes ("writers" and "erasers") that alter the modification level and binding proteins ("readers") that recognize the chemical marks. However, challenges remain due to the vast heterogeneity in expression abundance of different RNA species, further complicated by divergent cell-type-specific and tissue-specific expression and localization of the effectors as well as modifications...https://www.cell.com/action/showPdf?pii=S1097-2765%2819%2930317-X

New 8. Stadhouders R, et al. **Transcription factors and 3D genome conformation in cell-fate decisions.** *Nature* 2019;569:345-354. Three-dimensional genome architecture has important roles in the regulation of gene expression and is therefore a key determinant of cell identity in normal development and in disease states… https://www.nature.com/articles/s41586-019-1182-7?WT.ec

Other Recommended Readings

New 1. Dolgin E. **Massive NIH-industry project opens portals to target validation.** *Nat Rev Drug Discov.* 2019;18:240. Five years in, the US$360 million Accelerating Medicines Partnership is yielding tools to speed up drug discovery for rheumatoid arthritis, lupus ... https://www.nature.com/articles/d41573-019-00033-8

New 2. **Biobusiness market watch**: Upcoming market catalysts in Q2 2019 and top drugs and companies by sales in 2018. *Nat Rev Drug Discov.* 2019;18:244-5.
https://www.nature.com/articles/d41573-019-00048-1
https://www.nature.com/articles/d41573-019-00049-0

New 3. Evers M et al. **Unlocking the power of translational medicine**. *Nat Rev Drug Discov.* 2019;18:248. https://www.nature.com/articles/d41573-019-00030-x

New 4. Blau HM, Daley GQ. **Stem Cells in the Treatment of Disease.** *N Engl J Med* 2019;380:1748-60. https://www.nejm.org/doi/full/10.1056/NEJMra1716145?query=TOC

New 5. Bollyky T, Kesselheim AS. **Pharmaceutical Protections in U.S. Trade Deals - What Do Americans Get in Return?** *N Engl J Med.* 2019 May 1. doi: 10.1056/NEJMp1902240.
https://www.nejm.org/doi/full/10.1056/NEJMp1902240?query=TOC

New 6. Dransfield M et al. **Towards eradication of chronic obstructive pulmonary disease: a *Lancet* Commission.** *Lancet.* 2019;393:1786-8. Despite many advances in medicine, our understanding of the pathobiological mechanisms that underlie chronic obstructive pulmonary disease (COPD) remains incomplete, the definition of the disease is debated, our diagnostic tests are imprecise, and treatment is inadequate, even as the global burden of the disease continues to increase. Progress has been hampered by …
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)30950-X/fulltext

New 7. **The Countries That Drink the Most Tea.** Move over, China. Turkey is the real titan of tea.
https://www.theatlantic.com/international/archive/2014/01/map-the-countries-that-drink-the-most-tea/283231/

https://mp.weixin.qq.com/s/eyC0WClucGMvdJDGUXGfEg (中文)

New 8. **'Four golden lessons' to students** from Steven Weinberg - 16 years old but still as valuable as when it was first published in *Nature* in 2003.
https://www.nature.com/articles/426389a

https://mp.weixin.qq.com/s/V2wWCZohYXwEI8S-GD02AQ (中文)

New 9. Zeng Y, et al. **Sex Differences in Genetic Associations With Longevity.** *JAMA Netw Open.* 2018;1. pii: e181670. The sex differences in genetic associations with longevity are remarkable, but have been overlooked by previously published genome-wide association studies on longevity. This study contributes to filling this research gap and provides a scientific basis for further investigating effects of sex-specific genetic variants and their interactions with environment on healthy aging, which may substantially contribute to more effective and targeted individualized health care for male and female elderly individuals.
https://mp.weixin.qq.com/s/WE9coO3kapYXpMQfN017vQ
https://www.ncbi.nlm.nih.gov/m/pubmed/30294719/?i=9&from=groupmessage&isappinstalled=0

New 10. **Common Cancer Myths and Misconceptions**, according to National Cancer Institute
https://www.cancer.gov/about-cancer/causes-prevention/risk/myths

https://mp.weixin.qq.com/s/_c_qVbFLwdTSdmVA82RAyg (中文)

New 11. Manthey J et al. **Global alcohol exposure between 1990 and 2017 and forecasts until 2030: a modelling study.** *Lancet* 2019; Published online: May 07, 2019. Alcohol use is a leading risk factor for global disease burden, and data on alcohol exposure are crucial to evaluate progress in achieving global non-communicable disease goals. We present estimates on the main indicators

of alcohol exposure for 189 countries from 1990–2017, with forecasts up to 2030. Based on these data, global goals for reducing the harmful use of alcohol are unlikely to be achieved, and known effective and cost-effective policy measures should be implemented to reduce alcohol exposure.
https://www.sciencedirect.com/science/article/pii/S0140673618327442
https://mp.weixin.qq.com/s/zWT17Qrv0873g07NcAwScg (中文)

New 12. **Top 20 Country GDP at Purchasing Power Parity History & Projection (1800-2040).** This video shows the Top 20 countries with highest GDP PPP from 1800 to 2040 based on 2011 international dollars. It gives a brief history of the world since the 1800s. China and India were ahead before the 1900s while the US started leading after the 20th century.
Is there anything more epic than watching the rise and fall of the Chinese, British, Indian, and American empires. Some countries like Ukraine, Poland, and Indonesia were not independent back then, but the data still corresponds to the regions. Here are the sources and the video is based on constant 2011 international dollars as explained in the description :
https://data.worldbank.org/indicator/NY.GDP.MKTP.PP.KD?year_high_desc=true
https://m.youtube.com/watch?feature=share&v=4-2nqd6-ZXg&from=timeline&isappinstalled=0

New 13. **Top 20 Country Population History & Projection (1810-2100).** This video shows the Top 20 countries with most population from 1810 to 2100 based on the Angus Maddison Project. It gives a brief history of the world since the 1800s. Asia (China and India) had the most population since the beginning of human civilisation. But if the UN projections are accurate enough, Africa might become the most populous continent within the next century…
https://www.youtube.com/watch?v=bFuEMnPVZyE

New 14. **Hartung T. Opinion: AI Beats Animal Testing at Finding Toxic Chemicals.** *The Scientist* May 2019. Machine learning could be the key to reducing the use of animals in experiments…
https://www.the-scientist.com/critic-at-large/opinion--ai-beats-animal-testing-at-finding-toxic-chemicals-65795

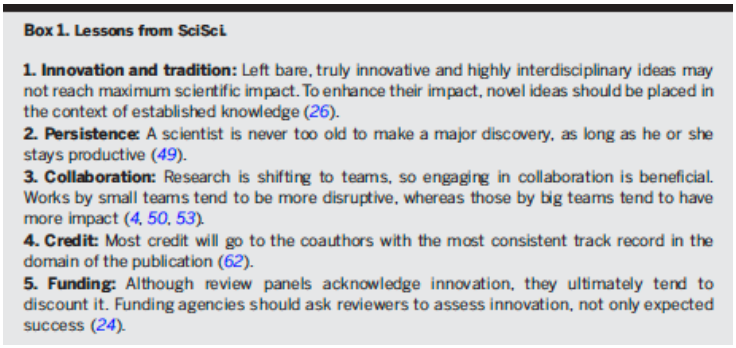
New 15. Editorial. **Being a PhD student shouldn't be bad for your health.** *Nature* 2019;569:307. The first international meeting on postgraduate mental health opens this week, but much more is needed to solve academia's crisis. https://www.nature.com/articles/d41586-019-01492-0?WT.ec_id

New 16. ***Nature Index* Biomedical Science 2019** and **Top-200 institution table.** *Nature* May 2019. The biomedical sciences have helped global average life expectancy rise by 20 years since 1960. This supplement highlights scientists and institutions prominent in the ongoing research effort that will further transform our ideals of a healthy human life in the coming decades.
https://www.nature.com/collections/jeabaahgec
https://www.natureindex.com/supplements/nature-index-2019-biomedical-sciences/tables/overall

New 17. Kucab JE, et al. **A Compendium of Mutational Signatures of Environmental Agents.** *Cell.* 2019;177:821-836.e16. Whole-genome-sequencing (WGS) of human tumors has revealed distinct mutation patterns that hint at the causative origins of cancer. We examined mutational signatures in 324 WGS human-induced pluripotent stem cells exposed to 79 known or suspected environmental carcinogens. Forty-one yielded characteristic substitution mutational signatures. Some were similar to signatures found in human tumors. Additionally, six agents produced double-substitution signatures and eight produced indel signatures. Investigating mutation asymmetries across genome topography revealed fully functional mismatch and transcription-coupled repair pathways. DNA damage induced by environmental mutagens can be resolved by disparate repair and/or replicative pathways, resulting in an assortment of signature outcomes even for a single agent. This compendium of experimentally induced mutational signatures permits further exploration of

roles of environmental agents in cancer etiology and underscores how human stem cell DNA is directly vulnerable to environmental agents.
https://www.ncbi.nlm.nih.gov/pubmed/30982602
https://wenhui.whb.cn/third/baidu/201905/14/262524.html (中文)

New 18. Fortunato et al. **Science of science.** *Science* 2018;359: eaao0185. The science of science (SciSci) is based on a transdisciplinary approach that uses large data sets to study the mechanisms underlying the doing of science—from the choice of a research problem to career trajectories and progress within a field. In a Review, Fortunato *et al.* explain that the underlying rationale is that with a deeper understanding of the precursors of impactful science, it will be possible to develop systems and policies that improve each scientist's ability to succeed and enhance the prospects of science as a whole.



Box 1. Lessons from SciSci.

1. Innovation and tradition: Left bare, truly innovative and highly interdisciplinary ideas may not reach maximum scientific impact. To enhance their impact, novel ideas should be placed in the context of established knowledge (*26*).
2. Persistence: A scientist is never too old to make a major discovery, as long as he or she stays productive (*49*).
3. Collaboration: Research is shifting to teams, so engaging in collaboration is beneficial. Works by small teams tend to be more disruptive, whereas those by big teams tend to have more impact (*4*, *50*, *53*).
4. Credit: Most credit will go to the coauthors with the most consistent track record in the domain of the publication (*62*).
5. Funding: Although review panels acknowledge innovation, they ultimately tend to discount it. Funding agencies should ask reviewers to assess innovation, not only expected success (*24*).

https://science.sciencemag.org/content/359/6379/eaao0185
https://mp.weixin.qq.com/s/_Ye_9_88VAoCJQqro-OB-g (中文)

New 19. **The 7 Habits of Highly Effective Presenters**
https://www.stemcell.com/efficient-research/effective-presentations?utm

New 20. Abdill RJ, Blekhman R. **Tracking the popularity and outcomes of all bioRxiv preprints.** *eLife* 2019;8:e45133.The growth of preprints in the life sciences has been reported widely and is driving policy changes for journals and funders, but little quantitative information has been published about preprint usage. Here, we report how we collected and analyzed data on all 37,648 preprints uploaded to bioRxiv.org, the largest biology-focused preprint server, in its first five years. The rate of preprint uploads to bioRxiv continues to grow (exceeding 2,100 in Oct. 2018), as does the number of downloads (1.1 million in Oct. 2018). We also find that two-thirds of preprints posted before 2017 were later published in peer-reviewed journals, and find a relationship between the number of downloads a preprint has received and the impact factor of the journal in which it is published. We also describe Rxivist.org, a web application that provides multiple ways to interact with preprint metadata. https://elifesciences.org/articles/45133
https://www.biorxiv.org/content/10.1101/515643v1
https://mp.weixin.qq.com/s/pV_g-UhFhNA5vgGgV6oayA (中文)

New 21. **How to give an effective seminar about your research project.** *Nature* 8th May 2019. Grab your audience's attention by using slides as a roadmap and focusing on your role as a presenter, recommends Ananya Sen. https://www.nature.com/articles/d41586-019-01574-z

New 22. **How to write a great academic CV.** *Nature* 8th May 2019. How to write a great academic CV. Academic CVs differ from those intended for industry roles. Here are some broad rules to follow… https://www.nature.com/articles/d41586-019-01358-5
http://blogs.nature.com/naturejobs/2011/09/27/38-tips-on-writing-an-academic-cv/

Invitation from Future Meetings

1. **The 4th Chinese Microcirculation Week will be held in Weihai City of Shandong Province, China on June 7-9, 2019.** The meeting will be chaired by Professor Jin-Yan Han. The queries of the detailed of the meeting can be forwarded to weixunhuan2019@163.com

New 2. **TCM Frontiers Forum and WJTCM Editorial Board Meeting will be held in Shenzhen 29 June-1 July 2019:** https://mp.weixin.qq.com/s/uwXJojyh0P0nhBCAdWF15g (中文)

3. **The 7th Annual Meeting of GP-TCM RA will be held in Daegu Haany University (DHU), Daegu City, Republic of Korea, on July 8th – 11th, 2019.** See pages 1.

New 4. **The 18th Meeting of Consortium for Globalization of Chinese Medicine (CGCM) will be held in Shanghai on August 8 - 10, 2019 (Thursday- Saturday), the Meeting is organized by Shanghai University of Traditional Chinese Medicine, Shanghai.** It provides a platform for regulatory-industrial-academic exchanges and potential research collaborations on various frontiers of TCM among worldwide CGCM members and guests.
Please visit: www.tcmedicine.org. Please submit your abstracts via cgcm2019.com/weben/ by **May 31, 2019**. To support postgraduates to attend the 18th CGCM Meeting, up to 50 Travel Grants are now open for application. Awardees will receive travel grant, free accommodation (shared room) and waiver of registration fee. You may wish to encourage your postgraduates to submit abstracts and apply for the Travel Grant.
Should you have any enquiries, please feel free to contact Meeting Secretariat by the following emails. **Registration:** registration@cgcm2019.com; **Abstract :**centraloffice@tcemedicine.org; **Accommodation:** hotel@cgcm2019.com

5. **2019 *The Lancet*–CAMS Health Conference: a call for abstracts.** The Chinese Academy of Medical Sciences (CAMS) and the *Lancet* family of journals invite abstract submissions for the 2019 *The Lancet*–CAMS Health Conference, to be held on Oct 19–20, 2019, in Chengdu, China. West China Hospital, Sichuan University, will be the local co-organiser with CAMS in Chengdu. 2019 will mark the fifth collaborative conference between CAMS and the *Lancet* family of journals to support medical research in China.
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)33176-3/fulltext

New 6. **The 16th World Congress of Chinese Medicine will be held in Budapest, Hungary, in November 2019:** World Congress of Chinese Medicine (WCCM), organized by World Federation of Chinese Medicine Societies (WFCMS), is a global academic event in the field of traditional Chinese medicine. It is convened annually and has been successfully organized 13 times in different countries. The 16th WCCM under the theme of the "Belt & Road TCM Academic Communications" will be held in Budapest, Hungary in November, 2019.
https://www.medmeeting.org/MiniSiteEn/index/7888

https://a.eqxiu.com/s/1BpDHw7h (中文)

New 7. **The 8th GP-TCM RA Annual Meeting will be held in Vytautas Magnus University, Kaunas, Lithuania.** The conference will bring together scientists, clinicians, regulators and business people involved in different aspects of TCM. To reflect our commitments to good practices in TCM research and development, speakers will include representatives from industry that are bringing new medicines to the market based on traditional Chinese medicine as well as those studying different aspects of quality control. This will include the need to embrace new techniques and monographs for monitoring the control of granules entering the trade. Who should attend the conference?

- Pharmacologists, natural product chemists and those interested in drug development
- Those involved in the conservation and sustainable supply of medicinal plants and fungi
- Companies interested in developing products based on traditional Chinese medicines
- Clinicians and acupuncturists involved in TCM

More information will be published in the near future.
https://www.vdu.lt/en/vmu-will-host-the-annual-meeting-of-traditional-chinese-medicine/

Invitation from Journals

1. **World Journal of Traditional Chinese Medicine: Sincere invitation for submissions.** World

Journal of Traditional Chinese Medicine (ISSN 2311-8571, CN10-1395/R) is sponsored by WFCMS, and is the official journal of GP-TCM RA. WJTCM dedicates to report the research progress in clinical efficacy and action mechanism of Traditional Chinese Medicine, Chinese materia medica, acupuncture and moxibustion to doctors and biomedical researchers around the world, so as to provide new thoughts and methods for solving complex diseases and knotty diseases. To submit your manuscripts, or to read articles in the past issues, please visit: http://www.wjtcm.net
Great news! Since November 2018, WJTCM has been included in the list of core Chinese scientific journals and magazines! https://mp.weixin.qq.com/s/r5BAEi8uinIpxj0QvhapMA (中文)

2. **Health-care reform in China: a *Lancet* call for papers.** In 2019, *The Lancet* will dedicate a theme issue to evaluate the progress of health-care reform in China on its tenth anniversary. The 2019 China theme issue will be launched at *The Lancet*–Chinese Academy of Medical Sciences Health Conference in Chengdu, China, on Oct 19–20, 2019. While we welcome submissions from China throughout the year and across all *Lancet* family journals, the editors invite submissions of high-quality research from China—or from research teams working on health in China—for this issue. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)33054-X/fulltext

Sounding Board: This column is reserved for comments, personal views, proposals for collaborations or any other features from our readers across the world. We look forward to hearing from you! Please get in touch with your editors: Dr Qihe Xu (qihe.xu@kcl.ac.uk), Prof Pierre Duez (pierre.duez@umons.ac.be) and Prof Yuan Shiun Chang (yschang0404@gmail.com).

Acknowledgements: Contributions from Prof **Yuan-Shiun Chang** (Taichung), Prof **Pierre Duez** (Mons), Dr **Clara Lau** (Hong Kong), Dr **Jun Li** (Shiyan), Prof **Haitao Lu** (Shanghai), Prof. **Aiping Lu** (Hong Kong), Dr **Elizabeth Ren Qi** (Hong Kong), Dr **Binqing Shen** (Zurich), Prof **Xuanbin Wang** (Shiyan), Prof **Vivian Wong** (Hong Kong), Dr **Qihe Xu** (London) and Prof **Zhongzhen Zhao** (Hong Kong) are gratefully acknowledged.

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https://mp.weixin.qq.com/s/CYRoZsdVht8fVMW7QTHYLQ