The November/December 2015 Newsletter of The GP-TCM Research Association

# CHRISTMAS 2015 - NEW YEAR 2016 EDITION

## Extended Editorial *Turning adversities into opportunities*

Tai-Ping Fan, President-Elect, GP-TCM Research Association

Reading through the excellent editorials written by the Co-ordinator of FP7 GP-TCM Consortium/Past Vice-President Dr Qihe Xu (Oct-Nov 2014), Past President Rudolf Bauer (Nov-Dec 2014), President De-an Guo (Jan-Feb 2015 and July-Aug 2015), Honorary Members Prof. Gerhard Franz (March-April 2015), Prof. Jan van der Greef (April-June 2015), Prof. Yung-Chi Cheng (Sept-Oct 2015), as well as Director General Xiaopin Wang 王笑频 of Department of International Cooperation, SATCM (June-July 2015), I felt an extraordinary sense of honour and privilege to serve the GP-TCM RA as its founding Secretary-General (2012-2014) and as President-Elect since January 2015.

I started my journey in TCM in the summer of 1983, having just received a PhD degree in Immunopharmacology from the Institute of Basic Medical Sciences, University of London. It was my very good fortune to be nominated by my supervisor Graham Lewis and Sir John Vane to represent The Royal Society on a mission to assess the status of pharmacological research in China. The 3-week official visit took me to Hong Kong, Guangzhou, Guilin, Hangzhou, Shanghai and Beijing. While I was saddened to see the poor research facilities in universities and academies there, I was at the same time inspired and uplifted by the unparalleled enthusiasm and dedication of the Chinese pharmacologists, young or old alike. It was a huge privilege to have been introduced to TCM by eminent pharmacologists and pioneers of integrative medicine: Jinhuang Zhou 周金黄, Zhenyu Song 宋振玉, Gengtao Liu 刘耕陶, Guozhang Jin 金国章, Zhengang Wang 王振纲 Gangzhong Liu 刘干中, Guangsheng Ding 丁光生, Qichao Pan 潘启超 and Jianhua Wang 王建华 as well as a young medical student Liang Liu 刘良 who would later become Dean of School of Chinese Medicine, Hong Kong Baptist University, and then President of Macau University of Science & Technology.

Zhengang Wang (L2) and Jinhuang Zhou (L4)

Gengtao Liu (L1) and Zhenyu Song (L2)

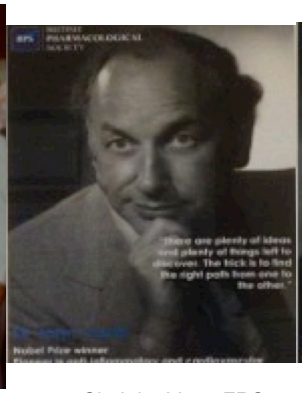
Guozhang Jin (L2 of front row)

Guangsheng Ding

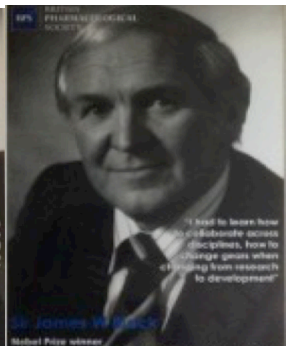
Qichao Pan (R1)

Graham Lewis (M), with wife Averil (L1) and secretary Olive

Chinese Pharmacological Society (Beijing) delegation attending IUPHAR 9th International Congress of Pharmacology - London, 1984



Sir John Vane FRS
Nobel laureate 1982



Sir James Black FRS
Nobel laureate 1988

When I took up my lectureship at Cambridge University in 1986, I saw a wonderful opportunity to engage in mechanistic studies of an anti-asthma herbal formulation prescribed for my daughter Victoria by the celebrated Dr Dinghui Luo 罗鼎辉. However, my attempt to study crude mixtures in non-standardised TCM fufang was ridiculed by many colleagues as pseudo-science. It was a very dark period for me to face so many unexpected adversities. To keep my passion for TCM research alive, I sought the advice of Sir John Vane and Sir James Black, who taught me pharmacology at University College London. With their moral support and guidance, I seized the opportunity to make TCM research my lifetime career.

DInghui Luo (M), whose herbal treatment for steroid-resistant eczema transformed the status of TCM in the UK, and Dan Jiang (R)

Zhu Chen (L) Chinese Minister of Health (2007-2013) advising me on GP-TCM matters

Our first breakthrough came in 2004. In collaboration with Hong Kong Baptist University, MIT and TNO (the Netherlands), we carried out a mass spectrometric compositional analysis of American, Chinese and Korean, and Sanqi ginseng and showed distinct “sterol ginsenoside” fingerprints, especially in the ratio between a triol, Rg1, and a diol, Rb1, the 2 most prevalent constituents. We were the first to report in *CIRCULATION* that angiogenesis is modulated by distinct ratios of Rg1 and Rb1. Subsequent studies demonstrated that while Rg1 promotes angiogenesis via the expression of nitric oxide synthase and induces VEGF expression through the glucocorticoid receptor-related phosphatidylinositol 3-kinase/Akt and β-catenin/T-cell factor-dependent pathway in human endothelial cells, Rb1 inhibits angiogenesis via the anti-angiogenic pigment epithelium derived factor. Similarly, *Angelica sinensis* was shown to contain both pro- and anti-angiogenic compounds.

Another major turning point was the meetings with the Vice President of the Chinese Academy of Science Academician Zhu Chen 陈竺 in 2004-2006. He encouraged me to remain at the University of Cambridge and capitalise on its world-leading position as a bridgehead 桥头堡 to create greater global impact for TCM. In collaboration with Xiaohui Zheng 郑晓晖 of Northwest University in Xi'an, we are investigating the cardio-protective and anti-atherosclerotic effects of novel chimeric compounds derived from *Salvia miltiorrhiza*, as well as their mechanisms of action. Inspired by traditional medicine philosophies, we have developed a *Jun-Shi* medicinal compatibility model as a novel drug discovery strategy.

I would like to thank Qihe Xu for appointing me as his Deputy Coordinator of the FP7 GP-TCM Consortium (2009-2012) - the EU's first coordination action dedicated to TCM research. In that capacity, I also contributed to the growth of the consortium by co-coordinating Work Package 7 (Functional Genomics in R & D of Chinese Herbal Medicines) and editing GP-TCM Newsletters. Over the years, I have received generous support from friends and colleagues in materia medica, chromatography technologies, chemogenomics, metabolomics, clinical medicine, acupuncture and regulatory affairs. They have been proactive in helping me establish a future platform for good practice in the R&D of TCM, traditional European and Mediterranean medicines, and other ethnomedicines in Africa, the Middle East, the Indian sub-continent, and the America. This led to the invitation from *Science* AAAS to edit a Special Supplement on *"The Art and Science of Traditional Medicine*". Together with Josephine Briggs, Liang Liu, Aiping Lu, Jan van der Greef and Anlong Xu, we have produced 3 parts to date, with Part 4 in preparation.


- *Part 1: TCM Today - A Case for Integration*
  http://www.sciencemag.org/content/346/6216/1569.4.summary
- *Part 2: Multidisciplinary Approaches for Studying Traditional Medicine*
  http://www.sciencemag.org/content/347/6219/337.3.summary
- *Part 3: The Global Impact of Traditional Medicine*
  http://www.sciencemag.org/content/350/6262/871.3.summary

It was a great honour, privilege and vindication for me to be invited to give a 30-minute speech at the United Nations Headquarters in New York on 8 July 2015. My presentation *"Health and Healing Through Evidence-based Applications of Traditional Medicine"* highlighted the aims and progress of the GP-TCM RA http://webtv.un.org/meetings-events/watch/part-2-amrita-university-event-an-international-conference-on-technology-for-sustainable-development/4346071033001[40min-71min].

Looking ahead, I pledge to work closely and proactively with President De-an Guo, Board of Directors as well as GP-TCM RA members. Together, let's strive to achieve our 10 objectives http://www.gp-tcm.org/about/objectives/, in promoting high-quality evidence-based research of TCM through developing, disseminating and implementing good practice. Through innovation and integration, TCM will no doubt be recognised and accepted by the global scientific and medical community.

## New Senior leaders congratulate traditional Chinese medicine academy on 60th anniversary

BEIJING, Dec. 22 (Xinhua) -- Chinese President Xi Jinping has written a letter of congratulations for the 60th anniversary of the China Academy of Chinese Medical Sciences (CACMS), which held a commemorative meeting Tuesday. In the letter, the president extended his sincere wishes to medical and health practitioners of traditional Chinese medicine (TCM). Generation after generation of TCM pharmacists, researchers and practitioners, including Nobel Prize winner Tu Youyou, have worked hard and earned merits, contributing significantly to the development of TCM and benefiting health services, Xi said. TCM is the treasure of ancient Chinese science and should be valued to take advantage of its unique advantages, Xi stressed. The president said China should advance the modernization of TCM and make TCM accepted and popular worldwide.

Premier Li Keqiang has also sent a congratulatory message to the CACMS. He emphasized the need to combine TCM and Western medicine to cultivate more medical talent and make new breakthroughs in health. http://news.xinhuanet.com/english/2015-12/22/c_134942078.htm

## New The Nobel Prize in Medicine 2015: Two drugs that changed global health

It is fitting that in the weeks after pivotal publications describing a 40% reduction in *Plasmodium falciparum* malaria cases in Africa between 2000 and 2015 and the prevention or cure of 96 million cases of lymphatic filariasis since 2000, the 2015 Nobel Prize for Medicine is shared between three scientists who made a major contribution to these efforts. Youyou Tu's research on artemisinin, an active antimalarial component from extracts of the plant *Artemisia annua*, and Bill Campbell's and Satoshi Omura's research on ivermectin, a derivative of metabolites from the Gram-positive filamentous Actinomycete bacteria, remind us of the important role of drugs derived from natural products ….

The story of the artemisinin class of antimalarial goes back centuries to the Han Chinese Dynasty. The healing properties of extracts of *A. annua* appear regularly in Chinese literature associated with a range of conditions, including fevers…. Tu searched the ancient literature for starting points for a discovery program and revisited the potential antimalarial merits of this plant. With the support of a team of largely anonymous Chinese scientists, the active ingredient artemisinin was identified and confirmed as the active antimalarial ingredient. This observation has revolutionized the way we look at malaria chemotherapy.

The sesquitepene lactone structure of artemisinin is itself a fascinating natural product, with chemistry far removed from what the medicinal chemist would consider ideal for a drug. It is the exquisite selective reactivity of the peroxide bridge within this structure that affords it a unique antimalarial killing potential, reducing parasite biomass more efficiently than any other registered antimalarial and rapidly alleviating disease symptoms. ….. ***The absolute mechanisms of action of artemisinin and related molecules nevertheless remain elusive and may point to a pleiotropic effect. The identification of artemisinin has driven the development of semisynthetic and fully synthetic derivatives and highlighted the value of natural products as starting points for drug discovery.***

– Simon L. Croft and Steven Ward http://stm.sciencemag.org/content/7/316/316ed14

## New China embraces precision medicine on a massive scale

Strong genomics record bodes well but a shortage of doctors could pose a hurdle.

David Cyranoski *Nature* **529,** 9–10 (07 January 2016) doi:10.1038/529009a

Formidable capacity in genome sequencing, access to millions of patients and the promise of solid governmental support: those are the assets that China hopes to bring to the nascent field of precision medicine, which uses genomic, physiological and other data to tailor treatments to individuals.

Almost exactly one year after US President Barack Obama announced the Precision Medicine Initiative, China is finalizing plans for its own, much larger project. But as universities and sequencing companies line up to gather and analyse the data, some observers worry that problems with the nation's health-care infrastructure — in particular a dearth of doctors — threaten the effort's ultimate goal of improving patient care.

Precision medicine harnesses huge amounts of clinical data, from genome sequences to health records, to determine how drugs affect people in different ways. By enabling physicians to target

drugs only to those who will benefit, such knowledge can cut waste, improve health outcomes using existing treatments, and inform drug development. For example, it is now clear that individuals with a certain mutation (which is mostly found in Asian people) respond better to the lung-cancer drug Tarceva (erlotinib; W. Pao *et al. Proc. Natl Acad. Sci. USA* **101,** 13306–13311; 2004), and the discovery of a mutation that causes 4% of US cystic fibrosis cases led to the development of the drug Kalydeco (ivacaftor).

The Chinese government is expected to officially announce the initiative after it approves its next five-year plan in March. Just how much the effort will cost is unclear — but it will almost certainly be larger and more expensive than the US$215-million US initiative.

Since last spring, Chinese media has been abuzz with estimates of a 60-billion yuan (US$9.2-billion) budget, spread over 15 years. But this figure is not finalized, cautions Zhan Qimin, director of the State Key Laboratory of Molecular Oncology at Peking Union Medical College in Beijing, who is involved in the initiative. He says that the effort will consist of hundreds of separate projects to sequence genomes and gather clinical data, with support for each ranging from tens of millions of yuan to more than 100 million yuan.

Anticipating the initiative, leading institutes — including Tsinghua University, Fudan University and the Chinese Academy of Medical Sciences — are scrambling to set up precision-medicine centres. Sichuan University's West China Hospital, for instance, plans to sequence 1 million human genomes itself — the same goal as the entire US initiative. The hospital will focus on ten diseases, starting with lung cancer.

Both the US and the Chinese efforts will focus on genetic links to diseases that are particularly deadly, such as cancer and heart disease. But China will target specific cancers, such as stomach and liver cancer, which are common there.The Chinese initiative is part of a series of research-funding efforts that will replace two major grant programmes, known as 863 and 973, that are due to be phased out by 2017. The new programmes will be "more organized, more efficient", says Zhan.

Genome-sequencing companies are already vying to provide services to deal with the anticipated demand. For s everal years, China has boasted high genome-sequencing capacity. In 2010, the genomics institute BGI in Shenzhen was estimated to host more sequencing capacity than the entire United States. This was thanks to its equipment, purchased from Illumina of San Diego, California, which at the time represented state-of-the-art technology. But Illumina has since sold upgraded machines to at least three other genomics firms — WuXi PharmaTech and Cloud Health, both in Shanghai, and the Beijing-based firm Novogene.

Jason Gang Jin, co-founder and chief executive of Cloud Health, says that this trio, rather than BGI, will be the main sequencing support for China's precision-medicine initiative — although BGI's director of research, Xu Xun, disagrees. Xu says that precision medicine is a priority for BGI and that the organization has a diverse portfolio of sequencers that still gives it an edge. "If you are talking about real data output, BGI is still leading in China, maybe even globally," he says. BGI has already established a collaboration with the Zhongshan Hospital's Center for Clinical Precision Medicine in Shanghai, which opened in May 2015 with a budget of 100 million yuan and is run by Fudan University.

**Numbers game**

Regardless of the details, Jin thinks that China will be faster than the United States at sequencing genomes and identifying mutations that are relevant to personalized medicine because China's larger populations of patients for each disease will make it easier to find sufficient numbers to study.

Still, it remains to be seen whether China has the resources to apply these insights to the individualized care of patients. "China wants to do it, and everybody is very excited," says Ta Jen Liu, project director at the MD Anderson Cancer Center in Houston, Texas, who helps to establish collaborations in China and is familiar with the precision-medicine scene there.

But there are hurdles. He notes that Chinese researchers and pharmaceutical companies have not had much success in developing drugs so far; that the pathologists needed to diagnose specific diseases are scarce in China; and that physicians there are notoriously overworked. "Doctors are always overwhelmed with patients, seeing 60 or 70 a day," he says. "They don't have time to sit down and think about what is best for specific patients."

David Weitz, a physicist at Harvard University who is starting a company in Beijing to develop diagnostic instruments for use in precision medicine, agrees that there will be obstacles, but notes the initiative's assets. "We need lots of data to validate ideas, to validate tests," he says. "There's lots of data here."

He thinks that this, combined with the Chinese government's determination to succeed, will mean that the effort will ultimately win out. "They really seem devoted to meeting the needs of the society," he says. "It's an exciting thing, to try to help that many people."

## GP-TCM RA News

**Special Topic on TCM for Gastrointestinal Diseases 2016 in World Journal of TCM**

**World Journal of Traditional Chinese Medicine (WJTCM)**

The official journal of WFCMS and GP-TCM

Special Topic on

**Traditional Chinese Medicine for Gastrointestinal Diseases 2016**

CALL FOR PAPERS

Gastrointestinal diseases are common, not only in the field of specialized institute for digestive diseases, but also in primary care institute, all over the world.

We invite researchers to contribute original research articles as well as review papers on the treatment of Traditional Chinese Medicine for Gastrointestinal diseases, including gastroesophageal reflux disease, functional dyspepsia, peptic ulcer disease, *H. pylori* gastritis, NSAID gastroenteropathy, irritable bowel syndrome, inflammatory bowel disease, chronic constipation, functional diarrhea and so on. The CAM methods include Chinese or traditional oriental medicine, acupuncture, electroacupuncture, biofeedback therapy, patient-centered education.

Authors can submit their manuscripts via the Manuscript System at https://mc03.manuscriptcentral.com/wjtcm.

Potential contents include, but are not limited to:

a. Studies on the application of traditional oriental medicine including TCM for treating Gastrointestinal diseases

b. Animal studies exploring novel applications of traditional oriental medicine for treating Gastrointestinal diseases

c. Studies investigating mechanisms and pathways involved in the application of traditional oriental medicine for Gastrointestinal diseases

d. Novel methodologies and technologies of traditional oriental medicine with potential applications to Gastrointestinal diseases

e. Reviews and meta-analysis on traditional oriental medicine for treating Gastrointestinal diseases

f. Comparative studies between traditional oriental medicine and modern Western medicine for treating Gastrointestinal diseases

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**Manuscript Due**
Aug. 31, 2016

**Publication Date**
Dec. 1, 2016

### New Welcoming Prof. Olavi Pelkonen to join GP-TCM RA Newsletter Editorial Board

As Co-Editors, Tai-Ping Fan and Qihe Xu are pleased to announce that our distinguished colleague Prof. Olavi Pelkonen, eProfessor of Pharmacology, University of Oulu, Finland, has agreed to join us in the Editorial Board of the GP-TCM RA Newsletters!

Olavi was a senior member of the FP7 GP-TCM project and a founding member of the GP-TCM RA. He is a 'HighlyCited Researcher in pharmacology and toxicology' (ISI-Thomson) and has expert roles at ECVAM and EMA (a co-opted member in toxicology of the Committee of Herbal Medicinal Products), among others, and advisory roles in Finnish drug development service entities.

### New Invitation from *World Journal of Traditional Chinese Medicine* (WJTCM).

**WJTCM**, ISSN 2311-8571, a new peer-reviewed journal (quarterly), launched in 2014. It is sponsored by the World Federation of Chinese Medicine Societies (WFCMS) and the GP-TCM RA. **Aim &Scope:** Introduce clinical efficacy and mechanism of TCM to doctors and biomedical researchers around the world, so as to provide new ideas and methods for solving the complicated and difficult cases.

- WJTCM includes reviews and original articles focused on four aspects:
- Modern Research on Chinese Materia Medica: theories of processing, property, and compatibility of Chinese materia medica; safety of Chinese materia medica; active principles and mechanism and efficacy of crude drugs and Chinese compound formulas
- Research on TCM Theory: scientific connotation and biological foundation of TCM basic theories
- TCM clinical Research: disease and syndrome, TCM safety, efficacy evaluation, evidence-based and systematic evaluation
- Acupuncture and Moxibustion: effect mechanism of acupuncture and moxibustion, specificity of acupoint effect, acupoints compatibility, efficacy evaluation of acupuncture and moxibustion.

**Submission to the Journal:** All the articles can be submitted via ScholarOne: https://mc03.manuscriptcentral.com/wjtcm, Detailed information about requirements of manuscript and format can be found in "Instruction&Forms" by the above URL, or by accessing WJTCM home page www.wjtcm.org. All WJTCM articles will be published online via WJTCM website (www.wjtcm.org). Full text PDF articles and electronic/online versions are freely available to global readers.

## Funding opportunities

### New The Chinese Ministry of Science and Technology has launched the first call for applications for funding, aimed at Chinese researchers participating in Horizon 2020 projects.

One of the problems facing EU-China collaborations after FP7 was that Chinese partners will not normally receive funding from the EU for participation in H2020 projects. Thus, future EU-China collaborations must rely on matched funding.

Following the creation of the so-called **Co-funding Mechanism** in September, the Chinese Ministry of Science and Technology has **launched the first call for applications for funding**, aimed at Chinese researchers participating in Horizon 2020 projects.

The Co-funding Mechanism aims at facilitating the participation of Chinese organisations in Horizon 2020 by enabling them to receive funding from the Chinese Ministry of Science and Technology (MOST). The first call for funding aimed at Chinese researchers either included in successful 2014/2015 Horizon 2020 projects, or interested in participating in the programme in the current two-year Work Programme is now open.

There will be two deadlines for applications: 31 March and 31 July 2016 covering three parts of the call; while the first deadline will apply to applications from Chinese researchers successfully selected in Horizon 2020 projects from the 2014/2015 Work Programme and to the areas open to China in the 2016/2017 Work Programme that have a deadline prior to 31 March 2016, the second one will apply to those areas open to China in the 2016/2017 Work Programme that have a deadline between 31 March and 31 July 2016.

The priority areas to be supported in 2016 mainly cover **agriculture** (including **food**),

**biotechnologies**, **ICT**, **space**, **aviation**, **energy**, **health**, **transport**, **water resources**, **energy conservation** and **emission reductions**, **advanced manufacturing**, **new materials**, **sustainable urbanisation**, and **exchange of young scientists**.

Subscribers willing to involve Chinese organisations in Horizon 2020-funded projects in 2016/2017 should let their partners know about this opportunity, which is administered independently from the European Commission by MOST.

Further information about the call in Chinese and English can be found on the European Commission **website** dedicated to international cooperation in Horizon 2020: http://ec.europa.eu/research/iscp/index.cfm?pg=china

### New H2020 call deadlines calendar (2015/2016)

http://www.zabala.es/wp-content/uploads/2015/docs/ZABALA_HORIZON2020_CALENDAR_2015-2016-2017.pdf

### New Update on Horizon 2020

**Horizon 2020 Work Programme 2016-2017: Changes Compared to 2014-2015.** Commissioner Moedas launched the 2016/17 Horizon 2020 Work Programme on 13th October at a press conference in Brussels. The two-year programme has a budget of almost €16 billion and has been designed to respond to the wider policy objectives of the European Commission, including the Jobs, Growth and Investment Package, the Digital Single Market, the Energy Union, Climate Change policy and making Europe a stronger global actor.
The Commissioner said that while these were the overarching priorities, on a horizontal level the Work Programme also responds to the priorities defined by him on research and innovation policy, namely the three O's (Open Science, Open Innovation and Open to the World).
The second Horizon 2020 Work Programme includes 16 work programmes, 63 calls and around 600 topics in 2016 and 2017. The Commission is planning to award approximately 1000 European Research Council grants and 10,000 fellows are to benefit from the Marie Skłodowska-Curie Actions in 2016 itself.

Some of the general changes in this Work Programme compared to the previous one for 2014-2015 are as follows.

Nine **focus area calls**, designed to provide stronger integration across different Work Programme parts on key areas of political relevance and societal concern, have been set for 2016-17. These are: Automated Road Transport, Digital Security, Energy Efficiency, Competitive Low-carbon Energy, Blue Growth and Sustainable Food Security, with three more, Industry 2020 in the Circular Economy, Internet of Things, and Smart and Sustainable Cities, included in a new Work Programme part (part 17).

A novelty in Horizon 2020 was the introduction of an **open research data pilot**, which aims to improve and maximise access to, and re-use of, data generated by projects. The pilot concerns selected 'core areas' within Horizon 2020, the number of which has expanded compared to 2014-2015 and currently covers:

1. Future and Emerging Technologies
2. Research infrastructures (including e-Infrastructures)
3. Leadership in enabling and industrial technologies – Information and Communication Technologies
4. Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, and Biotechnology: 'nanosafety' and 'modelling' topics
5. Societal Challenge: Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy - selected topics in the calls H2020-SFS-2016/2017, H2020-BG-2016/2017, H2020-RUR-2016/2017 and H2020-BB-2016/2017, as specified in the work programme
6. Societal Challenge: Climate Action, Environment, Resource Efficiency and Raw materials – except raw materials
7. Societal Challenge: Europe in a changing world – inclusive, innovative and reflective Societies
8. Science with and for Society
9. Cross-cutting activities - focus areas – part Smart and Sustainable Cities.

The list of types of action has been expanded to include the **European Joint Programme (EJP) Cofund actions**, designed to support coordinated national research and innovation programmes.
The wording on the aspects to be taken into account when applying the **award criteria** has also been updated: under 'Excellence', reference is now made to interdisciplinary approaches (previously 'trans-

disciplinary') and use of stakeholder knowledge; under 'Impact', the impact statement in the work programme topic descriptions have been given slightly more prominence; and under 'Implementation', it is now clearer that each partner should have a valid role, resources to match its tasks, and that over-inflated work-packages may be penalised. Consequently, the proposal templates available for download on the Participant Portal have been updated.
As for **two-stage proposals**, the so-called 'dynamic' thresholds for the first stage have been introduced, whereby the overall threshold will be set such that the total requested budget of proposals admitted to the second stage is as close as possible to three times the available budget.
Details on the above points can be found in the Work Programme's introduction and general annexes:
http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-intro_en.pdf
http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2016-2017/annexes/h2020-wp1617-annex-ga_en.pdf

**12 October 2015 - H2020 News from UKRO:**
In total, after a first round which saw 2,096 proposals submitted to the two-stage 2015 Health call, 484 proposals were evaluated at the second-stage of the procedure, with 49 proposals short-listed for funding. This gives a success rate of around 10 per cent at the second stage, and of 2.3 per cent overall. The Commission acknowledges that the oversubscription and low success rates are a unsatisfactory, and will take steps in the next calls to mitigate against this, through slightly narrower topics and re-introducing a one-stage process.

**Update on SME Participation in Horizon 2020 (**12 October 2015)
**SME Instrument**
So far, there have been nine cut-off dates, to which 14,134 individual applicants have submitted a total of 13,353 applications, representing 20% of the proposals submitted in Horizon 2020 to date. In terms of successful projects, there have been 1,147 participants in 1,084 funded projects. The funded projects account for 18% of projects funded so far in Horizon 2020. In Phase 1 applications, single companies account for 92% of funded proposals; in Phase 2, 79%.
The results for 2015 cut-offs so far are as follows:

| | March Phase 1 | March Phase 2 | June Phase 1 | June Phase 2 | Sept Phase 1 | Sept Phase 2 |
|---|---|---|---|---|---|---|
| Proposals | 1556 | 619 | 2029 | 946 | 1873 | 960 |
| Above threshold | 251 (16%) | 230 (38%) | 342 (17%) | 357 (38%) | - | - |
| Funded | 149 | 37 | 128 | 44 | - | - |
| Budget Allocated | 7.5 m€ | 68.6 m€ | 6.4 m€ | 70.5 m€ | - | - |

In terms of companies getting Phase 2 funding after receiving funding at Phase 1, 146 companies from Phase 1 have applied in Phase 2 in the March and June cut-offs in 2015, accounting for 10% of applications to Phase 2. Of these, 111 passed the threshold, accounting for 19% which met the threshold; and 21 were funded. The average success rate for companies graduating from Phase 1 to Phase 2 was 5.5%, nearly three times higher than the average.

EASME have now started 'showcasing' some of the companies that have received funding from the SME Instrument on their website.

**Horizon 2020 overall**
In the Societal Challenge and Leadership in Industrial Technologies (LEIT) strands of Horizon 2020, over one billion euros of funding has now gone to 3,104 SMEs. This accounts for 23% of the total funding allocated in these areas of the programme.
Within the Societal Challenge pillar, 24.4% of participants in funded projects so far are SMEs and they have received 22.8% of the EU contribution. Under LEIT, 30.1% of the participants so far are SMEs, and they have received 24.2% of the EU contribution.

**Draft 'Pre-Publication' Work Programmes 2016-2017 available**
http://www.eurida-research.com/horizon-2020-news/news-18-1/index.html

**China–UK research and innovation bridges competition opens on 16 Nov 2015.** Innovate UK, the Research Councils UK (RCUK) & MoST for the People's Republic of China are to invest up to £16 million in collaborative research & development projects that propose new commercial solutions to challenges impacting the socio-economic growth & development of China in relation to energy, **healthcare**, urbanisation and agri-food. The aim of the competition is to bring together companies (small to medium-sized companies and/or larger businesses), research organisations, academics and other collaborators from China and the UK for the joint research and development of new solutions to key socio-economic challenges, in the form of innovative products, processes or services. The principal market a project must consider is China.

**Registration closes:** 23 Mar 2016, 12:00 **Closes:** 30 Mar 2016, 12:00

Registration is required to enter this competition. Please note that registration will close 6 days before the competition application deadline. https://interact.innovateuk.org/competition-display-page/-/asset_publisher/RqEt2AKmEBhi/content/china–uk-research-and-innovation-bridges-competition

## Important news from European Medicines Agency

**1.** The European Medicines Agency has released for public consultation a concept paper in the revision of the "Guideline on the assessment of clinical safety and efficacy in the preparation of Community herbal monographs for well-established and of Community herbal monographs/entries to the Community list for traditional herbal medicinal products/substances/preparations".

In 2006, the "Guideline on the assessment of clinical safety and efficacy in the preparation of Community herbal monographs for well-established and of Community herbal monographs/entries to the community list for traditional herbal medicinal products/substances/preparations" (EMEA/HMPC/104613/2005) was published. The purpose of the guideline was to harmonise the assessment of efficacy and safety when preparing monographs for well-established and traditional herbal medicinal products.

In principle, the content of the guideline is still valid, but an update of the document to current standards is required taking into account advances over the last 10 years as well as established practice and legal interpretations. Developments and details in the assessment methodology have so far been mainly reflected in template revisions (e.g. Assessment report template EMA/HMPC/418902/2005 Rev. 5, monograph template EMA/HMPC/107436/2005 Rev. 7), but also other public documents such as the 'Public statement on the interpretation of therapeutic indications appropriate to traditional herbal medicinal products in Community herbal monographs (EMA/HMPC/473587/2011).'

The document open for consultation is available by clicking here.

Comments should be provided using this template. The completed comments form should be sent to hmpc.secretariat@ema.europa.eu.

Please note that the deadline for comments for this concept paper is **31 January 2016**.

We would be grateful if you could disseminate this email to anyone else who might be interested in this document.

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New **2. The European Medicines Agency has recently published for public consultation:** draft European Union herbal monographs and calls for scientific data

One draft European Union herbal monograph:
Draft European Union herbal monograph on *Prunus africana* (Hook f.) Kalkm., cortex

Please, send your comments to hmpc.secretariat@ema.europa.eu by using the standard template.

Seven calls for scientific data:

- Call for scientific data for use in HMPC assessment work on herbal tea combinations traditionally used in the therapeutic area 'urinary tract disorders'
- Call for scientific data for the systematic review of the monograph on *Echinacea pallida* (Nutt.) Nutt., radix
- Call for scientific data for the systematic review of the monograph on *Achillea millefolium* L., flos and *Achillea millefolium* L., herba
- Call for scientific data for the systematic review of the monograph on *Olea europaea* L., folium
- Call for scientific data for the systematic review of the monograph on *Valeriana officinalis* L., radix and *Humulus lupulus* L., flos
- Call for scientific data for the systematic review of the monograph on *Cynara scolymus* L., folium
- Call for scientific data for the systematic review of the monograph on *Achillea millefolium* L., flos and *Achillea millefolium* L., herba

Please, send your comments to hmpc.secretariat@ema.europa.eu.

The deadline for comments is **15 March 2016**.
We would be grateful if you could disseminate this email to anyone else who might be interested in this document.

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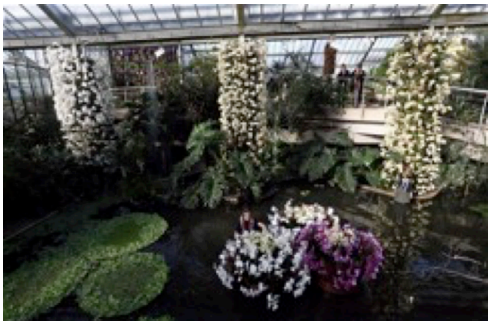
## Other news

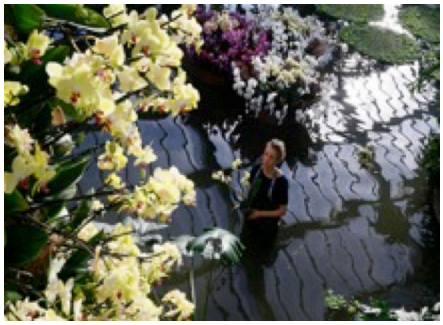
New [Special feature on news previously reported on 4 March 2015] **Kew Gardens funding cuts 'recipe for failure'.**. By Rebecca Morelle**.** Science Correspondent, BBC News.

**The UK government's financial management of Kew Gardens is "a recipe for failure", MPs have said.** The Science and Technology Select Committee warns that cuts in government funding are placing Kew's world-class science status at risk. The London-based organisation faces a financial black hole £5.5m a year and has lost 47 core science posts. The report said Kew needed long-term funding in place and more control over its spending. Andrew Miller MP, chair of the committee, said: "The current strategy - or lack of strategy - is a recipe for failure. "Everyone recognises that the work being done (at Kew) is not just of national importance, it is of global importance. We've got to fund it properly and it needs stability."

**For more than 250 years, the Royal Botanic Gardens, Kew, has been the world's leader in botanical research. It has more than seven million plant and fungi specimens, making it the largest collection in the world**. But the Science and Technology Select Committee warned that its future was uncertain.

Kew said the Department for Environment, Food and Rural Affairs (Defra) had cut its funding by £2m a year. This, combined with a loss in funds from Kew's main charity supporter and rising overheads, means it is facing an annual deficit of £5.5m. While extra money from the government has been announced - two one-off payments of £1.5m and £2.3m - the Select Committee says this is not enough. The MPs criticise the government for having no long-term funding in place, saying that this leaves Kew with little ability to plan for the future.





Mr Miller said: "The nature of the research undertaken in Kew does need a very long term perspective. If we don't do that, you might as well not do the work." They also accuse Defra of micromanaging Kew's finances, stating that too many of the organization's spending decisions have to be signed off by the government. The report compares Kew to the Natural History Museum, another London-based organisation that is both a visitor attraction and centre for research. It says the museum receives £44m a year from the government, more than twice the amount that the Royal Botanic Gardens gets, and it also has greater financial freedom.

The MPs said there should be more consistency of treatment between the two organisations. Last week, Kew announced its new science strategy, outlining where it will focus its research in the coming years. Plans include digitising its plant and fungi collections, an annual health check of the world's flora and hosting an MSc course in taxonomy. However, it is pared-back vision. Just under a quarter of its core science posts have been cut.

Richard Deverell, director of the Royal Botanic Garden, Kew, said: "We have had a very serious financial challenge last year at Kew, and we make no secret of that.
"We had to lose a number of posts, we had to restructure. I hope we are through the worst of that.
"We have as an absolute priority growing our own income at Kew, but we also need long-term financial support from government as part of a mixed funding model."

Commenting on the report, a spokesperson for Defra said that Kew Gardens had received extra money for its Millennium seed bank and the refurbishment of Temperate House.
She said that the government would be reviewing how Kew was funded and the freedom it is given over its budget.

"Kew is a world-leader in plant science and research," the spokesperson said. "We are proud of the vital work carried out by Kew - that is why we have given it on average more money per year from 2010 than in the preceding three years, with more money next year provided as 'unrestricted' funding."

New **The Spending Review: how will UK science be affected?**
http://www.internationalinnovation.com/the-spending-review-how-will-uk-science-be-affected/?utm_source=Newsletter031215&utm_medium=email&utm_campaign=Newsletter031215

New **Nature report: UK scientists celebrate slight rise in research budget. Science budget will rise with inflation amid cuts elsewhere, following government spending review.**
http://www.nature.com/news/uk-scientists-celebrate-slight-rise-in-research-budget-1.18878?

New **Nature Outlook – Genome Editing**
http://www.nature.com/nature/journal/v528/n7580_supp/full/528S1a.html?

The term 'genetic engineering' has been around since the early 1970s, along with the idea that, by altering DNA, scientists can cure genetic disease or create superhumans. Reality, however, was

much less exciting. It is only in the past few years that researchers have developed the tools that allow them to engineer the genome with the precision and ease originally envisioned — to be able to edit any DNA base anywhere in any genome. A CRISPR–Cas9 plasmid, the most recent of the widely used genome-editing tools, now costs US$65 or less. It can be ordered online, arrives in the post and requires little specialist training to use.

It is this availability and simplicity that has allowed genome editing to become common practice. Agricultural scientists and infectious disease experts are doing it, as are synthetic biologists. Epigeneticists have modified DNA-editing tools to manipulate their objects of study. Biotechnology companies are springing up, aiming to develop treatments based on genome editing. But some diseases are more amenable than others. One of the most advanced therapies is one that shuts HIV out of immune cells.

With so much activity, a thorough and inclusive discussion of the implications of this technology is vital. Which is why the foremost scientific societies of three countries — the United States, United Kingdom and China — have come together this December to sponsor an international summit on the topic of editing the human germ line. Now is the time for the most respected scientists in the field to lay out the risks and benefits of genome editing to society, as Jennifer Doudna and George Church do in this Outlook.

New **Health care in China: an Editorial underlines clinical research as the key to achieving its health reform goals.** http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2815%2900452-3/fulltext

New **China Issues Rules Banning Dishonesty in Science Publishing**
https://click.mail.advantagebusinessmedia.com/?qs=f771659f3bd4ebabda62292ab900e3bce5d380f2b6db5e5de5da95185b88e393
After a series of scandals, Chinese regulators overseeing the field of academic publishing for scientific articles have issued rules explicitly banning dishonest practices.

The directive, dated Nov. 23 but released Wednesday, forbids Chinese scientists from using a third party to write journal articles, using a third party to submit articles, hiring a third party to substantially revise articles, providing fake peer review information, or giving authorship to scientists who have not substantially contributed to the research. The directive from the country's leading science organizations and ministries, including the Chinese Academy of Sciences and the Ministry of Education, comes after several international science journals this year rejected or retracted submissions from Chinese scientists, citing academic dishonesty.

The scandals raised concerns about the credibility of China's scientists, and Chinese authorities said in a note accompanying the rules that the incidents have hurt the international reputation of China's scientific work. In March, BioMed retracted 43 papers following an investigation that raised suspicions of fake peer reviews. Chinese state media said 41 of the papers came from Chinese scientists. Berlin-based publisher Springer announced in August that it had retracted 64 articles - nearly all by Chinese authors - because of false peer reviews.

Chinese state media reported last month that an investigation by the Chinese Association for Science and Technology had found that fake peer reviews were "a tip of the iceberg" and that the buying and selling of journal articles was common. Critics blame China's evaluation and promotion system, which places an emphasis on publishing articles, for the practices among scientists.

**Sounding Board:** This section is reserved for GP-TCM RA members to express their opinions, share their views and comment on publications in previous issues of the GP-TCM RA Newsletters. All members are sincerely invited to contribute proactively. Please e-mail your Co-Editors Dr Tai-Ping Fan (tpf1000@cam.ac.uk) and Dr Qihe Xu (qihe.xu@kcl.ac.uk).

## Meeting Reports

New **1. The Grand Challenges Meeting of the Bill & Melinda Gates Foundation in Beijing, 19-21 October 2015.** http://www.chinadaily.com.cn/china/2015-09/16/content_21890529.htm
http://news.xinhuanet.com/english/2015-10/15/c_134717119.htm; http://grandchallenges.org/
More than 800 government officials and experts from all over the world gathered and discussed critical topics facing countries around the world, including sustainable development, urban

infrastructure and healthcare. There was a special session on “TCM Innovation and Globalization” organized by Guo De-an on behalf of MOST which also included the establishment of a “China Strategic Innovation Alliance for TCM Modernization”. Rudi Bauer, Rob Verpoorte, Gerhard Franz, Werner Knöss, Ikhlas Khan and 5 other internationally respected scientists have been appointed as academic advisors.


**Session: TCM Innovation and Globalization 中医药创新与国际化**
**负责人：果德安**
**Chair: De-an Guo (China SIMM)**

概要：中医药是中华民族的宝贵文化遗产，为维系中华民族的繁衍与健康发挥了重要作用。然而由于中医理论的经验性和哲学特点加之中药是多成分的复杂体系，如何阐明中医药的科学内涵和充分发挥中医药的优势惠及全球健康仍面临巨大的挑战。该主题将重点就目前中医药现代化、国际化、标准化发展面临的重大科学问题开展讨论。

**Abstract**: Traditional Chinese medicine is the cultural heritage of the Chinese people and has played and still plays pivotal role in the maintenance of Chinese peoples' health and prosperity. However, TCM is still facing the great challenges in clarifying the scientific essence of TCM medical theory and developing into an evidence-based medicine system due to the empirical and philosophical feature of its theory plus the complexity of multiple components. This session will focus on the key scientific problems facing the TCM modernization, globalization and standardization.

**Scientific Program (October 19th, 2015)**

| Time<br>时间 | Speaker<br>报告人 | Title<br>题目 | Organization<br>机构 |
|---|---|---|---|
| 14:00-15:00 | The First Activity of<br>China Strategic Innovation Alliance for TCM Modernization<br>中国中医药现代化协同创新战略联盟<br>第一次活动会 | | |
| **Moderator**: Professor De-an Guo, Shanghai Institute of Materia Medica, CAS<br>主持人：果德安教授，中国科学院上海药物研究所 | | | |
| 15:00-15:30 | Prof. Bo-li Zhang<br>张伯礼院士 | Current Status and Future Perspectives of Traditional Chinese Medicine<br>中医药现状与未来发展 | China Academy of Chinese Medical Sciences<br>中国中医科学院 |
| 15:30-16:00 | Dr. Werner Knöss | Globalization, TCM and the European Regulatory Framework<br>国际化，中医药与欧洲监管框架 | HMPC of European Medicines Agency<br>欧盟药监局草药产品委员会 |

| | | | |
|---|---|---|---|
| 16:00-16:30 | Prof.Kai-xian Chen<br>陈凯先院士 | Integration of TCM and Modern Biomedicine<br>中医药与现代医学的融合 | Shanghai Institute of Materia Medica<br>中国科学院上海药物研究所 |
| 16:30-16:55 | Prof. De-an Guo<br>果德安教授 | Challenges and Current Status of TCM Globalization<br>中药国际化挑战与现状 | Shanghai Institute of Materia Medica<br>中国科学院上海药物研究所 |
| **Scientific Program (Contd., October 20th, 2015)** | | | |
| **Moderator:** Dr. Werner Knöss, HMPC of European Medicines Agency<br>主持人： Werner Knöss 博士，欧洲药监局草药产品委员会 | | | |
| 11:30-12:00 | Dr. Robin Marles | USP for Herbal Medicine Monographs and Future Development<br>美国药典草药标准与未来发展 | Unites States Pharmacopoeia<br>美国药典会 |
| 12:00-12:30 | Dr. Xi-jun Yan<br>闫希军总裁 | Road to FDA for Dantonic Pill<br>丹参滴丸通往 FDA 之路 | TaslyHonding Group<br>天士力集团 |
| 12:30-13:00 | Dr. Gerhard Franz | TCM Quality Monographs for European Pharmacopoeia<br>欧洲药典中药质量标准 | European Pharmacopoeia<br>欧洲药典会 |
| 13:00-13:25 | Prof. Shi-lin Chen<br>陈士林教授 | Application of DNA Barcoding in Identification of Chinese Herbal Medicines<br>DNA 条形码在中药鉴定中的应用 | China Academy of Chinese Medical Sciences<br>中国中医科学院 |
| 13:30-14:30 | Lunch Break<br>午餐 | | |
| **Moderator:** Professor Rudolf Bauer, University of Graz, Austria<br>主持人： Rudolf Bauer 教授，奥地利格拉茨大学 | | | |
| 14:30-14:55 | Prof. Wei-dong Zhang 张卫东教授 | Drug Discovery From Traditional Chinese Medicine<br>中药创新药物研究与开发 | Second Military Medical University<br>第二军医大学 |
| 14:55-15:20 | Dr. Ikhlas Khan | Current Situation of US Herbal Market<br>美国草药市场现状 | University of Mississippii, USA<br>美国密西西比大学 |
| 15:20-15:45 | Prof. Ai-ping Lu<br>吕爱平教授 | Evidence-based approach of Traditional Chinese medicine<br>中医的循证医学方法 | Hong Kong Baptist University<br>香港浸会大学 |
| 15:45-16:10 | Prof. Rudolf Bauer | Quality Research of Herbal Medicines 草药质量研究 | University of Graz, Austria 奥地利格拉茨大学 |
| 16:10-16:35 | Prof. Shao Li<br>李柄教授 | Methodology and application of network pharmacology in traditional Chinese medicine<br>网络药理学在中医药领域中的方法与应用 | Tsinghua University<br>清华大学 |
| 16:35-17:30, Panel discussion, Theme: Challenges and Opportunities in TCM Globalization<br>**Moderator:** Professor Gerhard Franz, European Pharmacopoeia<br>16:35-17:30，讨论，主题：中医药国际化中的挑战与机遇<br>主持人： Gerhard Franz 教授，欧洲药典会 | | | |

New **2. ICTCMH 2015: The 2nd International Conference of Traditional and Complementary Medicine on Health was held in Taipei, Taiwan, 24-27 October 2015.**
Excellent scientific programmes: http://www.ictcmh2015.org.tw/program.php
Panels of distinguished speakers: http://www.ictcmh2015.org.tw/Speakers.php

New **3. The China Academy of Medical Sciences (CAMS) and *The Lancet* family of journals invite abstract submissions from China for *The Lancet*-CAMS Health Summit, which was held in Beijing, China on 30–31 October 2015.**
http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2814%2961406-9/fulltext

**4. Methods 2015: International Symposium for Studying Drug Metabolism and Transport, and African Traditional Medicine, was held in Pretoria, South Africa, on 23-25 November 2015.**

The theme of the Symposium was "Rallying for Quality, Safe and Effective Medicines. The Symposium was organized by the University of Free State (Bloemfontain, South Africa). The principal organizer and the Chair of the Scientific Committee was Professor Andrew Walubo (University of Free State) together with Dr. Motalepula Gilbert Matsabisa and Dr. Rose Lekhooia. The meeting was attended by >200 delegates and the programme involved 25 plenary presentations in altogether 12 sessions, and 55 posters. Speakers came principally from South Africa, but China, India, Brazil, Jamaica, Germany, Sweden and Finland were also represented.

About a half of the talks and posters dealt with various methodological approaches to study drug metabolism and transport, including translational research and personalized drug treatment, another half were talks on various scientific and regulatory aspects of herbal medicinal products in South Africa, China, Brazil, India and Jamaica. In the pre-meeting educational Symposium possibilities to study interactions between herbal medicines and conventional drugs were described by Professor Collen Masimirembwa (Harare, Zimbabwe). In addition to talks on CYP and transporter polymorphsms in personalized medicine and on hepatoxicity, Professor Olavi Pelkonen (Oulu, Finland) gave a presentation on Advances: omics techniques in R & D of herbal-derived medicines, which included a short description of the GP-TCM consortium and its continuation as a Research Association. Besides a comprehensive overview on methodological advances in drug discovery and development, especially regarding pharmaco/toxicokinetics and metabolism, the meeting provided an excellent platform for industrial-academic-regulatory exchanges and potential research collaborations on herbal medicinal products, including TCM and Ayurveda, and less well-known regional herbal medicines such as in Jamaica, Brazil or South Africa.

## Future Meetings

**1. The 5th Annual Meeting of GP-TCM Research Association-cum-Summit on *Compendium of Materia Medica* and Innovative Drug Discovery in Chinese Medicine" will be held in Hong Kong, on 9–10 August 2016.** Jointly organised by the GP-TCM RA, Hong Kong Baptist University School of Chinese Medicine, and TCM Chemistry Specialty Committee and TCM Pharmaceutical Analysis Specialty Committee of WFCMS, this unique meeting will be held on 9–10 August 2016 on the campus of Hong Kong Baptist University, Hong Kong.

Chinese medicine is one of the treasures of Chinese culture. In recent decades, its use has spread far and wide and there is increasing recognition of its value worldwide. The Meeting-cum-Summit provides an interactive platform for the exchange of the latest research findings of meeting participants in the form of poster presentation and oral presentation to foster academic excellence in Chinese medicine.

**Call for Abstracts** starts now till 1 April 2016. Please visit http://scm.hkbu.edu.hk/gptcm-summit for more information, and check updates from time to time.

Please disseminate this message to your colleagues and research students who may be interested in attending this informative and inspiring event. Here below is the link of the First Announcement of the event: http://scm.hkbu.edu.hk/en/onlineforms/201608_gptcm/poster_1st_announcement.pdf

Should you need further information about the Meeting-cum-Summit, please contact us (email: scm@hkbu.edu.hk; phone: +852-34112064).

**2. The 16th Congress of the International Society of Ethnopharmacology (ISE) will held in Yulin, Guangxi, China, on 16-18 May 2016.** The ISE is an international society of researchers dedicated to the interdisciplinary study of the pharmacological activities of traditional medicines. ISE is also committed to preservation and conservation of such practices for future generations.
http://www.ethnopharmacology.org

**3. The 2nd Conference on Ethnomedicine and Traditional Medicine (CETM 2016) will be held from 1-3 June 2016 in Nanjing, China.** This Conference will cover issues on Ethnomedicine and Traditional Medicine. It is dedicated to creating a stage for exchanging the latest research results and sharing the advanced research methods. **Paper or abstract submission due 1 Feb. 2016**.
http://www.engii.org/ws2016/Home.aspx?ID=738

**CETM 2016 will be co-located with the following conferences:**

(1) The 2nd Conference on Pharmacovigilance and Drug Safety (CPDS 2016)
www.engii.org/conf/CPDS/2016Jun/
(2) The 2nd Int'l Conference on Pharmacology and Toxicology (ICPT 2016)
www.engii.org/conf/ICPT/2016Jun/
(3) The 2nd Int'l Conference on Reproductive Medicine (ICRM 2016)
www.engii.org/conf/ICRM/2016Jun/
(4) The 2nd Conference on Plastic and Aesthetic Medicine (CPAM 2016)
www.engii.org/conf/CPAM/2016Jun/
(5) The 2nd Conference on Advances in Medical Education (CAME 2016)
www.engii.org/conf/CAME/2016Jun/

**Presentation and Recommendation**
You are invited to submit papers to our conference through **paper submission system**. All the accepted papers will be published by "Journal of Biosciences and Medicines" (ISSN:2327-5081), a peer-reviewed open access journal that can ensure the widest dissemination of your published work.

**Contact Us**
Email: medi_june@engii.org
Tel: +86 151 7247 9625
QQ: 3025797047

**4. The 5th International Conference on the Modernization of Traditional Chinese Medicine will be held in Chengdu, China on 7-8 July 2016.** For promoting the development of traditional medicine, so as to provide better medical service to people worldwide, Prof. Lu Hua, the President of Teaching Hospital of Chengdu University of Traditional Chinese Medicine (CDUTCM), welcomes you to attend this meeting. This is a very meaningful series of conference which has been successfully co-sponsored three times by the Ministry of Science and Technology, Ministry of Public Health, China Food and Drug Administration, State Administration of Traditional Chinese Medicine, and People's Government of Sichuan Province. Led by Prof. Lu, The Teaching Hospital of CDUTCM is organizing the 4th Panel Forum on topic of "the Development of TCM Healthcare". More information to follow.

## Recommended Readings

**The Lancet Oncology Editorial. Rethinking traditional Chinese medicines for cancer**
Sinohealth Intelligence recently estimated that China's market for herbal remedies for cancer increased by 35% to nearly US$2·7 billion last year… It is important, therefore, that a balance is struck between seizing a real opportunity for drug discovery and integrative oncology, and maintaining sufficient scientific rigour to allow the medical community to have faith in the merit of traditional medicines. http://www.sciencedirect.com/science/article/pii/S1470204515004064

**World's biggest radio telescope and first-ever quantum satellite: China's top 5 scientific plans for 2016** http://www.scmp.com/tech/science-research/article/1896555/worlds-biggest-radio-telescope-and-first-ever-quantum

**China to strive for greater clout on the internet through global governance system**
http://www.scmp.com/news/china/policies-politics/article/1893062/china-strive-greater-clout-internet-through-global

## Acknowledgements
Contributions from Prof. **Rudi Bauer** (Graz), Prof. **Pierre Duez** (Mons), Dr. **Tai-Ping Fan** (Cambridge), Prof. **De-an Guo** (Shanghai), Prof. **Olavi Pelkonen** (Oulu), and Dr. **Qihe Xu** (London) are gratefully acknowledged.