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New **Editorial**

Air Pollution-induced Diseases: A Place for TCM in Prevention?

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From time to time, a different type of editorial will be published in this Newsletter; this Editorial presents a health-related problem and calls for collaboration between members to develop either a writing team for a review or a joint team that could develop a research project. The first installment is, proposed by three Belgian colleagues, a focused discussion on air pollution and health, and a possible role for TCM in prevention and treatment. Interested parties please directly contact Stéphanie Pochet: spochet@ulb.ac.be

Ambient air pollution has become a major environmental health risk, both in developed and developing countries[1]. Indeed, urban air pollution contributes to the development and exacerbation of respiratory diseases like asthma, chronic obstructive pulmonary disease and lung cancer. These effects are more closely associated to the particulate matter (PM) component of air pollution[2]. PM consists of a complex mixture of solid and liquid particles suspended in the air, including organic and inorganic substances. Their major sources are motorized road traffic, forest fires, domestic heating and industrial processes. PM are classified according to their aerodynamic diameter (∅) and divided into coarse particles (PM_{10}, ∅ < 10 µm), fine particles ($PM_{2.5}$, ∅ < 2.5 µm) and ultrafine particles ($PM_{0.1}$, ∅ < 0.1 µm)[3]. Fine and ultrafine particles seem to be the most harmful, as they are able to penetrate deep into the lungs and may pass directly into the circulatory system[4].

Therefore, PM inhalation affects not only the respiratory system, but also leads to the progression, development and exacerbation of cardiovascular diseases. Indeed, numerous epidemiological and clinical studies have linked PM exposure to cardiovascular events like hypertension, coronary artery diseases, heart failure, arrhythmia, myocardial infarction or cardiac arrest. Furthermore, people already at risk for cardiovascular diseases might be more sensitive to PM toxicity[5,6]. The 2013 Global Burden of Disease (GBD) study estimates that $PM_{2.5}$ was the 6th leading global risk factor, contributing to 5 % of total global deaths5[7]. Additionally, particulate air pollution has emerged as one of the leading contributors to stroke burden worldwide[8]. This fine particles toxicity is most likely due to the generation of a vascular oxidative stress, often accompanied by inflammation. Indeed, exposure to PM induces vascular endothelial dysfunction, promotes hypofibrinolysis, platelet activation and aggregation, reduces heart rate variability and causes plaque progression and rupture[9].

In order to reduce global health burden attributable to air pollution, air quality guidelines have been determined by the World Health Organization (WHO) and adapted by national and international authorities. Thus, the WHO recommends an annual mean $PM_{2.5}$ concentration of maximum 10 µg/m^3 and a 24-hour mean $PM_{2.5}$ concentration of 25 µg/m^3 that should not be exceeded more than 3 times a year[10]. Despite the efforts implemented by local authorities to reduce PM concentrations, 75 % of the world population is still exposed to concentrations above the WHO air quality standards. While PM levels tend to decline in countries around Europe and North America to reach WHO guidelines, many developing and emerging countries across Asia still suffer from high levels of PM, averaging 45 µg/m^3. In these countries, daily concentrations[11] commonly reach 150-500 µg/m^3. China actually ranks amongst the most polluted countries in the world and, in 2013, only 4,1 % of the cities met the annual average Chinese air quality standard of 35 µg/m^3 [12]. According to the 2013 GBD study, $PM_{2.5}$

exposure was the 5th leading global risk factor in China[5]. The recent massive pollution episodes experienced in major cities led authorities to take drastic measures that may alleviate the problems in coming years.

Worldwide, and especially in China, citizens may not be aware that the high daily PM concentrations they are exposed to strongly contribute to the development of cardiovascular diseases like myocardial ischemia and infarction, often leading to incapacitation and even to death.

Several therapies (statins, angiotensin receptor blockers, angiotensin-converting enzyme inhibitors, ß-blockers or antioxidant supplementation) have been suggested to be potentially effective in the prevention or reduction of PM-induced cardiovascular toxicity, especially because of their antioxidant and/or vasoprotective activity[11-13]. Given the widespread use of TCM in China, it would be important to review the remedies that may prevent cardiovascular risks associated with fine particles, and to evaluate experimentally their eventual chemopreventive benefits.

We propose that all interested scientists contact us to form a writing team to take in charge a review on this topic and to develop research avenues.

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13. Labranche N, Youl ENH, El Khattabi C, Dewachter L, Wauthoz N, Delporte C, et al. Rosuvastatin and vascular oxidative stress induced by diesel exhaust particles. Acta Cardiol. 2016. 71(5):565–72

Special Features

New 1. **The GP-TCM RA warmly congratulate Honorary Member Prof. Dr. Gerhard Franz and Board Member Prof. Dr. Rudolf Bauer for being awarded the 2016 Qihuang International Prize of China Association of Chinese Medicine**. The ceremony took place during the annual meeting of CACM in Lianyungang, Jiangsu Province, on April 14th, 2017. The prize was handed over by Ma Jianzhong, Deputy Director of State Administration of TCM, China.

The Award has been established in order to further stipulate the initiative and innovativeness of professionals both abroad and at home in the field of scientific research in Chinese medicine, promote the academic progress and scientific and technological innovation of Chinese medicine and advance the development of Chinese medicine overseas.

Prof. Dr. Gerhard Franz and Prof. Dr. Rudolf Bauer have been awarded because of their great contributions and achievements in the field of scientific research and development in Chinese medicine. Prof. em. Dr. Gerhard Franz is the former Director of the Institute of the University of Regensburg (Germany). In his academic career he has been active at the University of Fribourg (Switzerland) and Regensburg and as guest professor at the Universities of Grenoble (France), Basel (Switzerland) and Harbin (China). He is actually member of the German Pharmacopoeia Commission, the European Pharmacopoeia Commission, Chairman of the Pharmacognosy Group of the German Pharmacopoeia, former Chairman of the Phytochemistry Expert Group 13B and of the TCM Working Party of the European Pharmacopoeia. He served as President of the International Society of Medical Plant and Natural Product Research (GA) and as Editor and Co-Editor of a series of high ranking international journals. Prof. em. Dr. G. Franz initiated the elaboration and implementation of quality monographs on TCM herbal drugs for the EU in the framework of the European Pharmacopoeia. During this activity, which started in the year 2005, more than 60 TCM monographs were accepted by the European Pharmacopoeia Commission. He initiated and guided similar activities for the German Pharmacopoeia, the results of which were taken over in part by the European Pharmacopoeia. These activities in the field of TCM- Globalization were recognized by the Honorary Membership of the GP-TCM RA, the Annual Award of the World Federation of Chinese Medicine and finally the above documented Award of the Chinese Association of Chinese Medicine.

Prof. Dr. Rudolf Bauer, Head of the Institute of Pharmaceutical Sciences of University of Graz (Austria), has been GA president from 2002 - 2007. He is dealing with Chinese medicine since 1991 when he became member of the Scientific Advisory Board of the first German TCM Hospital in Bad Kötzting, Germany. Since then he has dealt extensively with the quality control of Chinese herbal drugs, and, together with Prof. Wagner from University of Munich, he published the series "Chinese Drug Monographs and Analysis", which is now edited in a book with four volumes "Chromatographic fingerprint analysis of herbal medicines - thin-layer and high-performance liquid chromatography of Chinese drugs". Currently Professor Bauer chairs the Working Group on TCM herbs of the European Pharmacopoeia Commission. In 2007 he initiated the TCM Research Center Graz, which is an inter-university center together with Prof. Litscher from Graz Medical University. He is coordinator of the TCM Research Cluster Austria, which is performing research joint research projects in the field of TCM together with the China Academy of Chinese Medical Sciences since 10 years, funded by the Austrian Federal Ministry of Science, Research and Economy and the Austrian Ministry of Health.
Since 2008 Prof. Bauer is organizing the Sino-Austrian Summer School for Chinese Herbal Medicine which brings 25 pharmacy students from Austria to China every year. In 2012, he became the founding President of the Good Practice in Traditional Chinese Medicine Research Association, which has emerged from an EU FP7 project dedicated to the development and application of best-practice methods in TCM research. Currently he is President of the International Society of Ethnopharmacology. In several projects funded by the Austrian Science Fund, he has explored the active ingredients of Chinese herbs and helped to increase the scientific understanding of TCM. He is a guest professor at six universities in China, and has received several awards, like the Egon-Stahl-Award in Silver of the Society for Medicinal Plant Research, the International Award of the Belgian Society of Pharmaceutical Sciences, and the Norman R. Farnsworth Excellence in Botanical Research Award of the American Botanical Council.

New 2. **Miansheng Zhu, a Senior TCM practitioner, was honoured by a French Knights of Honor Legion Medal for her contribution to healthcare in France.** 旅法著名中医专家朱勉生荣获法国荣誉军团骑士勋章 **(**中文**):** http://www.oushinet.com/qj/qjnews/20170419/260601.html

Report from the GP-TCM RA

New 1. **The 34th GP-TCM RA BoD Meeting was held as a Skype teleconference on Tuesday 18 April 2017.** The meeting was attended by Tai-Ping Fan (President), De-an Guo (Past President), Clara Lau (Secretary-General), Peter Hylands (Treasurer), Rudi Bauer, Abraham Chan, Thomas Efferth, Monique Simmonds, Rob Verpoorte and Vivian Wong. Qihe Xu provided inputs by e-mail and apologies were received from Pierre Duez and Aiping Lu (President-Elect). Chaired by Tai-Ping, the meeting approved the minutes of the 33rd BoD Meeting. Tai-Ping congratulated Rudi and Gerhard for their Qihuang International Prizes, and sent his good wishes for the 2017 GP-TCM RA nominees. After a President's overview on Corporate Members' response to his queries the Board discussed the issues on Life Membership, Corporate Membership Fee, amendments of the Bylaws and a budget for the Secretariat, etc.

New 2. **'East and West' – integrating Chinese and Western medical practices.** Following the first TCM Roundtable organised by GP-TCM RA President Dr Tai-Ping Fan in Prague in February 2017, an official visit of the Czech Health Minister to the University of Cambridge (Cambridge Judge Business School) is foreseen on 3-4 May 2017.
http://insight.jbs.cam.ac.uk/2017/east-and-west-integrating-chinese-and-western-medical-practices/.

European Reports

New 1. *Nature* Editorial. **Europe must find a new home for its drug regulator — and a way to keep using English.** Brexit puts a question mark over the continued use of English as an official language in the European Parliament. Now that the Brexit process is officially under way, officials must decide where to rehouse the European Medicines Agency (EMA). Currently in London, the EMA assesses new medicines for suitability to enter the European market. The regulator will need to move when the United Kingdom formally exits the European Union, which sets the rules and assessments that the agency enforces… http://www.nature.com/news/europe-must-find-a-new-home-for-its-drug-regulator-and-a-way-to-keep-using-english-1.21762?WT.ec_id

New 2. Downing NS, et al. **Regulatory Review of New Therapeutic Agents — FDA versus EMA, 2011–2015.** *New Engl J Med* 2017;376:1386-1387. The FDA approved 170 new therapeutic agents between 2011 and 2015, and the EMA approved 144. The therapeutic areas of the approvals were similar in the two agencies, although more therapeutic agents that were designated as orphan drugs were approved by the FDA than by the EMA (43.5% vs. 25.0% of the approved agents, P<0.001). The median total review time was 306 days (interquartile range, 239 to 371) at the FDA, as compared with 383 days (interquartile range, 327 to 446) at the EMA (P<0.001). The total review times were shorter at the FDA than at the EMA for therapeutic agents that are used for the treatment of cancer and hematologic disease, but not for other therapeutic areas, and for therapeutic agents that were designated as orphan drugs. Among the 142 therapeutic agents that were approved by both the FDA and the EMA (with approval by at least one regulator occurring during the sample period), the median total review time was 303 days (interquartile range, 202 to 365) at the FDA, as compared with 369 days (interquartile range, 322 to 420) at the EMA (P<0.001).
http://www.nejm.org/doi/full/10.1056/NEJMc1700103?query=TOC

New 3. **The European Research Council has updated its guidelines on the implementation of Open Access to Scientific Publications and Research Data:**
https://emea01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ukro.ac.uk%2Fsubscribers%2Farticles%2Fh2020-news%2F30c94f0e-4286-4585-9f53-e5a69d28a068%2F2083&data=01%7C01%7Cqihe.xu%40kcl.ac.uk%7Cb30a9c8081574255b8fb08d486b2f297%7C8370cf1416f34c16b83c724071654356%7C0&sdata=NmkZ%2Bes4UB8R5%2FTFm8Mriyqwr3E2C3AwIV4%2FUOvGzJE%3D&reserved=0

New 4. **Italy introduced the *World Federation of Chinese Medicine Societies (WFCMS)* examination of TCM practitioner, a first in Europe.** 最近，由世界中医药学会联会主办的国际中医药职业资格水平考试在意大利罗马举行，这是欧洲首次引进中医药职业资格水平考试。

http://www.worldtcm.org/170425/B54515215.shtml?from=groupmessage&isappinstalled=0 (中文)

China and EU-China Cooperation Reports

New 1. Hvistendahl M. **China aims to sow a revolution with GM seed takeover**. *Science* 2017;356:16-17. The planned takeover of Swiss seed giant Syngenta by Chinese state-owned chemical company ChemChina stands to change the outlook for biotech research in China. Although China imports preapproved genetically modified (GM) foods and generously funds GM research, the Chinese government has never approved a staple biotech food crop for cultivation. That may soon change, however. If the Syngenta takeover clears regulatory hurdles, the emergence of a massive state-owned company in possession of competitive GM seed lines could help speed along commercialization of key GM crops like corn. Researchers will still face an uphill battle, though—a Chinese public wary of government food safety claims largely opposes GM crops… http://science.sciencemag.org/content/356/6333/16?utm_campaign

New 2. **China's oldest-old—prospects for good health in late life.** https://eur03.safelinks.protection.outlook.com/?url=http%3A%2F%2Flancet-alerts.elsevier.com%2Fcgi-bin23%2FDM%2Fx%2FnBGfW0KLPsi0SB60BcLhf0EI&data=01%7C01%7Cqihe.xu%40kcl.ac.uk%7C979fc2de5026441d411b08d4889d771f%7C8370cf1416f34c16b83c724071654356%7C0&sdata=AYF0O8noktTcKBBbtNzr7cqJeZGB601xBr2hRCnIdek%3D&reserved=0

New 3. **Survival, disabilities in activities of daily living, and physical and cognitive functioning among the oldest-old in China: a cohort study.** https://eur03.safelinks.protection.outlook.com/?url=http%3A%2F%2Flancet-alerts.elsevier.com%2Fcgi-bin23%2FDM%2Fx%2FnBGfW0KLPsi0SB60BcLh60EU&data=01%7C01%7Cqihe.xu%40kcl.ac.uk%7C979fc2de5026441d411b08d4889d771f%7C8370cf1416f34c16b83c724071654356%7C0&sdata=59U4PkRrerOJUO3VmF99w4vmNulT04Et%2B4xoWPL21Fw%3D&reserved=0

New 4. **Retraction Note to multiple articles in *Tumor Biology* (mainly from China)**
http://link.springer.com/article/10.1007/s13277-017-5487-6
"同行评审"撤稿再起风波：中国成为重灾区：名单及统计: 2017 年 4 月 20 日，学术出版巨头 Springer 发布声明称，107 篇由中国学者发表于《肿瘤生物学》（Tumor Biology）的学术论文因涉嫌同行评审造假而被撤稿:
http://mp.weixin.qq.com/s?__biz=MzAwNTMxMDk1Mw==&mid=2648901116&idx=1&sn=6118d65dc375a8911a06eb3b1db91e68&chksm (**中文**)
Of note, research integrity is a worldwide problem. The proposal in the USA to set up an independent agency to supervise this important issue can be shared with other countries.
http://science.sciencemag.org/content/356/6334/115?utm_campaign=toc_sci-mag_2017-04-13&et_rid=33953672&et_cid=1272513
http://science.sciencemag.org/content/356/6334/123?utm_campaign=toc_sci-mag_2017-04-13&et_rid=33953672&et_cid=1272513

New 5. **State Administration of Traditional Chinese Medicine published a guideline for special calls for applications of TCM international cooperation, the call is open between 5th-15th May 2017** (国家中医药管理局发布《中医药国际合作专项 2017 年度项目申报指南》：
http://www.satcm.gov.cn/e/action/ShowInfo.php?classid=33&id=23882 (**中文**)

New 6. **Chinese-English Bilingual Law of the People's Republic of China on Traditional *Chinese Medicine* was** published by the World Federation of Chinese Medicine Societies. 4 月 19 日，世界中医药学会联合会在北京举行了《中华人民共和国中医药法（中英对照版）》首发仪式，该书由人民卫生出版社出版发行。
http://mp.weixin.qq.com/s?__biz=MzA3MDM5NTkyOA==&mid=2657148465&idx=1&sn=aa2e743baa2a01a44154286952f5bd78&chksm (**中文**)

TCM in Spotlight

New 1.Keji Chen. **My 60 years of traditional Chinese and Western medicine integration.** *Chin Integr Med* 2016; 22:563–568. （陈可冀. 中国中西医结合 60 年回想. 《中国中西医结合杂志》2017, 37(2):0140-142）**(中文)**
https://m.baidu.com/from=1018225g/bd_page_type=1/ssid=0/uid=0/pu=usm%400%2Csz%401320_2001%2Cta%40iphone_1_10.2_3_602/baiduid=54B95DEA9287BA1267FCAB904ED3D1F1/w=0_10_/t=iphone/l=3/tc?ref=www_iphone&lid=9060057724165938625&order=1&fm=alop&tj=www_normal_1_0_10_title&vit=osres&m=8&srd=1&cltj=cloud_title&asres=1&title=陈可冀院士%3A 中国中西医结合 60 年回想-世界中医药网
&dict=30&w_qd=IlPT2AEptyoA_yk66Ascxve5IkpSjZEn6yAMm3vUuestNuo6VydmwX0eih-tj1cUuv-wGMA0WWbWTfVugQgqD88rBSDJ3vK8EuBjRo6YNnsDyImLKn8Zb9cbz4fQSSgKCV_1RyPQcz_8_LziNWE0Vo82QJBKHq&sec=20170&di=6d742ba4e0497082&bdenc=1&tch=124.0.80.150.0.0&nsrc=IlPT2AEptyoA_yixCFOxXnANedT62v3IEQGG_zdLADKqiUqqxPvxJxEsRG_cACvGSoCb9m37tB9IwXOdASNunM5X&eqid=7dbbca7f7571dc001000000258ea0ec2&wd=&clk_info=%7B%22srcid%22%3A%221599%22%2C%22tplname%22%3A%22www_normal%22%2C%22t%22%3A1491734218043%2C%22xpath%22%3A%22div-a-h3%22%7D

New 2. **CCTV report on the Czech-Chinese TCM Centre [新闻直播间]一带一路 合作共赢·民心相通·中医中心：一带一路的健康使者 (中文)**
http://tv.cctv.com/v1/index.shtml?videoID=VIDEvZS0Qi4xsvUZXunOOLXt170428

New 3. **China ADR report: TCM products account for 16.9% in 2016, similar to that in 2015. 中国国家药品不良反应监测年度报告发布 - 世界中医药网。**按怀疑药品类别统计，化学药占81.5%、中药占16.9%、生物制品（不含疫苗）占1.6%，与2015年基本一致 **(中文)**
http://www.worldtcm.org/170429/333R15237.shtml?from=groupmessage&isappinstalled=0

New 4. **The Plight of TCM Quality and Safety to be Tackled.中药质量安全困局待解 - 世界中医药网 (中文)**
http://www.worldtcm.org/170429/3EF15238.shtml?from=groupmessage&isappinstalled=0

New 5. Han JY, et al. **Effects and mechanisms of compound Chinese medicine and major ingredients on microcirculatory dysfunction and organ injury induced by ischemia/reperfusion**. Pharmacol Ther. 2017 Mar 16. pii: S0163-7258(17)30085-2. Microcirculation dysfunction and organ injury after ischemia and reperfusion (I/R) result from a complex pathologic process consisting of multiple links, with metabolism impairment in the ischemia phase and oxidative stress in the reperfusion phase as initiators, and any treatment targeting a single link is insufficient to cope with this. Compound Chinese medicine (CCM) has been applied in clinics in China and some Asian nations for >2000years. Studies over the past decades revealed the protective and therapeutic effect of CCMs and major ingredients on I/R-induced microcirculatory dysfunction and tissue injury in the heart, brain, liver, intestine, and so on. CCM contains diverse bioactive components with potential for energy metabolism regulation; antioxidant effect; inhibiting inflammatory cytokines release; adhesion molecule expression in leukocyte, platelet, and vascular endothelial cells; and the protection of thrombosis, albumin leakage, and mast cell degranulation. This review covers the major works with respect to the effects and underlying mechanisms of CCM and its ingredients on microcirculatory dysfunction and organ injury after I/R, providing novel ideas for dealing with this threat.
http://www.sciencedirect.com/science/article/pii/S0163725817300852

New 6. **Two Papers Challenge Exclusion of Acupuncture in Government Guidelines**
New Rochelle, NY, April 28, 2017—Even as news in the United States recently highlighted the growing inclusion of acupuncture and other complementary and integrative medicine therapies in guidelines for multiple pain conditions, the exclusion of acupuncture in two British governmental guidelines is challenged in a paper and a commentary that are presently available free on *The Journal of Alternative and Complementary Medicine (JACM)* website until May 29, 2017. In "The U.K. NICE 2014 Guidelines for Osteoarthritis of the Knee: Lessons Learned in a Narrative Review Addressing

Inadvertent Limitations and Bias," an international team of co-authors led by Netherlands researcherStephen Birth, PhD challenge the UK's National Institute for Healthcare Excellence (NICE) for holding acupuncture to a higher evidentiary standard than other modalities. The authors also challenge the panel's decision to focus on clinical trials with sham acupuncture, given that the sham methods are known to not be inert, thus diminishing the "effect size" of acupuncture.
In an invited *JACM* commentary on this guideline and another on low-back pain and sciatica that also excluded acupuncture, United Kingdom acupuncture researcher Hugh MacPherson, PhD,
MBAcC also takes the NICE panel to task for also being "compromised by inconsistent application of criteria between interventions." The commentary is entitled "NICE for Some Interventions, But Not So NICE for Others: Questionable Guidance on Acupuncture for Osteoarthritis and Low-Back Pain."
"While the authors fall short of accusing the NICE panel of intentional bias, it is dumbfounding and deeply unfortunate in a time of advancing awareness of the public harm from over-reliance on pharmaceuticals in pain treatment that NICE should choose to stack the deck against the significant evidence for acupuncture as another tool," says *The Journal of Alternative and Complementary Medicine* Editor-in-Chief John Weeks, johnweeks-integrator.com, Seattle, WA.

New 7. Fan Arthur Yin, Zheng Ling, and Yang Guanhu. **Evidence That Dry Needling Is the Intent to Bypass Regulation to Practice Acupuncture in the United States**. The Journal of Alternative and Complementary Medicine. August 2016, 22(8): 591-593. doi:10.1089/acm.2016.0066. http://online.liebertpub.com/doi/full/10.1089/acm.2016.0066
The acupuncture technique most often studied scientifically involves penetrating the skin with thin, solid, and metallic needles that are manually or electrically manipulated. Practiced in China and other Asian countries for thousands of years, acupuncture is a key component of Traditional Chinese Medicine. Currently, acupuncture is being practiced in countries all around the globe and is rapidly attracting interest in Western countries.1
In this context of expanding public and professional interest in acupuncture in the United States, a practice called dry needling (DN) has become a hotly debated topic in both academic and regulatory circles. DN is an issue because some professionals, especially physical therapists (PTs) (and also some chiropractors, nurses, and others) are claiming the right to practice DN, which requires little training, as a practice distinct from acupuncture. DN is viewed by many, especially in the acupuncture community, as a strategic method to bypass laws that require rigorous training and oversight to engage in practice as an acupuncturist.
On November 6, 2015, the *Journal of Acupuncture in Medicine* published an article2 titled "Dry Needling Versus Acupuncture: The Ongoing Debate." An accompanying editorial3 concluded that DN, as used in treating musculoskeletal disorders, is a style of Western acupuncture that, while distinct from traditional acupuncture, is a form of the practice. This commentary reviews the origins of DN and reinforces that conclusion. Whatever rights to practice DN may be asserted or achieved by these professions, the historic evidence shows that there is no denying that DN is a form of acupuncture…

New 8. **Fu's Subcutaneous Needle** (FSN), invented by Dr. Zhonghua Fu in 1996, is an innovation for the treatment of myofascial pain and trigger points based on the research and clinical findings of Dr. D. Simons and Dr. Janet G. Travell. Originating from Traditional Chinese Medicine (TCM), FSN does not follow the rules and principles of TCM and the chosen insertion points do not coincide with traditional acupuncture points. The similarities are limited to the distal insertion of the needle to the affected area, the needle itself being a non-injection needle, and the fact that both needles are manipulated and act on soft connective tissue. FSN abstains from the muscle and deep fascia layers and is confined to only the subcutaneous layer where collagen fibers are most abundant. As the subcutaneous layer is poorly innervated, pain is less than other needling therapies.
FSN is also currently being used successfully to treat non-musculoskeletal conditions; however more research is to be carried out to conclude these findings…
https://en.wikipedia.org/wiki/Fu%27s_subcutaneous_needle

Omics in Progress

New 1. Jackson SA *et al.* **CRISPR-Cas: Adapting to change.** *Science* 2017;356(6333):eaal5056. Bacteria and archaea are engaged in a constant arms race to defend against the ever-present threats of viruses and invasion by mobile genetic elements. The most flexible weapons in the prokaryotic defense arsenal are the CRISPR-Cas adaptive immune systems. These systems are capable of selective identification and neutralization of foreign DNA and/or RNA. CRISPR-Cas systems rely on stored genetic memories to facilitate target recognition. Thus, to keep pace with a changing pool of hostile invaders, the CRISPR memory banks must be regularly updated with new information through a process termed CRISPR adaptation. In this Review, we outline the recent advances in our understanding of the molecular mechanisms governing CRISPR adaptation. Specifically, the conserved protein machinery Cas1-Cas2 is the cornerstone of adaptive immunity in a range of diverse CRISPR-Cas systems.
http://science.sciencemag.org/content/356/6333/eaal5056?utm_campaign

New 2. Treiber T, et al. **A Compendium of RNA-Binding Proteins that Regulate MicroRNA Biogenesis**. *Mol Cell* 2017; 66:270-84.
Abstract: During microRNA (miRNA) biogenesis, two endonucleolytic reactions convert stem-loop-structured precursors into mature miRNAs. These processing steps can be posttranscriptionally regulated by RNA-binding proteins (RBPs). Here, we have used a proteomics-based pull-down approach to map and characterize the interactome of a multitude of pre-miRNAs. We identify ~180 RBPs that interact specifically with distinct pre-miRNAs. For functional validation, we combined RNAi and CRISPR/Cas-mediated knockout experiments to analyze RBP-dependent changes in miRNA levels. Indeed, a large number of the investigated candidates, including splicing factors and other mRNA processing proteins, have effects on miRNA processing. As an example, we show that TRIM71/LIN41 is a potent regulator of miR-29a processing and its inactivation directly affects miR-29a targets. We provide an extended database of RBPs that interact with pre-miRNAs in extracts of different cell types, highlighting a widespread layer of co- and posttranscriptional regulation of miRNA biogenesis.
http://dx.doi.org/10.1016/j.molcel.2017.03.014

Other Recommended Readings

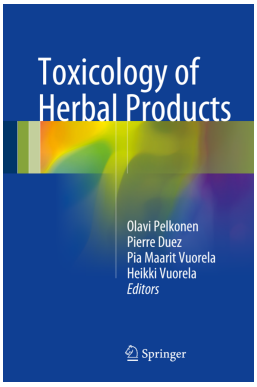
New 1. **Global Kidney Health Atlas: One in 10 people worldwide have kidney disease, according to the first detailed global report on care delivery for kidney disease.** Although high-income countries have the highest costs for dialysis and kidney transplantation, fewer than one (29%) in three high-income countries consider chronic kidney disease a priority compared with almost two (59%) in three low-income countries. That finding was one of the most striking in the report, said Aminu Bello, MD, PhD, co–lead author of the Global Kidney Health Atlas.
Publication of the atlas, which included survey results from 125 countries (representing 93% of the world's population), was timed to correspond with today's opening of the International Society of Nephrology's Global Kidney Policy Forum in Mexico City. The survey was conducted between May and September 2016.
A paper on the original investigation also appears on April 21, 2017 in *JAMA*, and a roadmap on how to close the gaps is being simultaneously published in the *Lancet*.
Overall, the report showed 10% of the world's adults had some form of kidney disease. "Many don't know they have it," Dr Bello told *Medscape Medical News*. Dr Bello is an assistant professor of medicine at the Division of Nephrology and Immunology, University of Alberta, Edmonton, Canada.
The report also found a wide range of prevalence globally. By region, the estimated prevalence ranges from 7% in South Asia and 8% in Africa to 11% in North America and 12% in Europe, the Middle East, East Asia, and Latin America.
Among high-income countries, Saudi Arabia and Belgium had the highest prevalence rates, at 24% each, followed by Poland (18%), Germany (17%), the United Kingdom (16%), and Singapore (16%). At the other end of the spectrum among high-income countries, Norway and the Netherlands had the lowest prevalence of CKD, at 5%.

The United States, where prevalence is 14%, is one of the countries from which respondents said kidney disease is not considered a priority by the government.
Report in JAMA: http://jamanetwork.com/journals/jama/fullarticle/2623225
Report in Lancet: http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)30788-2/fulltext

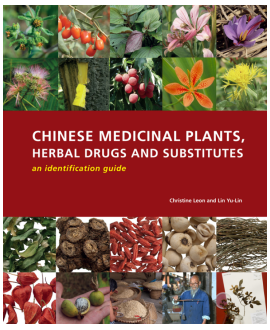
New 2. ***Nature* news**: **China's Supreme People's Court is to make the submission of falsified clinical data a crime punishable by multi-year prison terms.** Last week, a review committee of the court approved a new "interpretation" of criminal law. As a result, drug companies or the research contractors that conduct studies for them can be prosecuted under laws against false documentation and the production of spurious medicines. Cases in which 'fake drugs' — those created on the basis of false data — lead to deaths are punishable by the death penalty, concluded the committee. The new interpretation takes effect soon, says the court on its website.

A WeChat report in Chinese: 国家三部门同天发文！临床试验数据再造假，最高将判死刑！
http://mp.weixin.qq.com/s?__biz=MjM5OTEzOTUxOQ==&mid=2654112253&idx=5&sn=7b4d670eb7f21abc299a1c98a469e1a0&chksm

New 3. Akst J. **A History of Screening for Natural Products to Fight Cancer.** *The Scientist* April 1, 2017. In the middle of the 20th century, the National Cancer Institute began testing plant extracts for chemotherapeutic potential—helping to discover some drugs still in use today**…**
http://www.the-scientist.com/?articles.view/articleNo/48986/title/A-History-of-Screening-for-Natural-Products-to-Fight-Cancer/&utm_campaign



New 4. Pelkonen, O., Duez, P., Vuorela, P.M., Vuorela, H. co-edited **Toxicology of Herbal Products**, a book recently published by Springer. The Editors assembled a noted team of experts to provide a comprehensive overview of the hazards inherent in herbal medicinal products (composition, quality control, toxicokinetics, interactions, safety pharmacology, approaches to studying complex mixtures including metabolomics and systems network pharmacology, and long-term toxicity), with systematic coverage of various organ toxicities.
http://www.springer.com/gp/book/9783319438047



New 5. Christine Leon and Lin Yu-Lin co-authored **Chinese Medicinal Plants, Herbal Drugs and Substitutes: an identification guide**, recently published by the Royal Botanic Gardens of Kew. Over 816 pages, the authors provide a wealth of information on 226 herbal drugs (colour photographs, plant descriptions official species and substitutes, harvesting, source and natural range, conservation status, number of wild Chinese species, and up to date taxonomy and nomenclature for all Latin scientific names, derivative drug morphology, crude and processed forms, drug common names, properties and uses, and toxicity rating). This book results from years of research through China as the authors, with IMPLAD colleagues, have travelled to 20 of China's 34 provinces to source authentic and high quality Chinese medicines from fresh plants, and investigated China's herbal medicine markets for substitutes and adulterants. Truly a remarkable book that bridges Chinese tradition and up-to-date taxonomic work.
http://shop.kew.org/chinese-medicinal-plants-herbal-drugs-and-substitutes-an-identification-guide

New 6. In a recent paper, **Saturated fat does not clog the arteries: coronary heart disease is a chronic inflammatory condition, the risk of which can be effectively reduced from healthy lifestyle interventions**, Malhotra et al challenge the widely accepted concepts of cardiovascular risks association with saturated fats and LDL. http://bjsm.bmj.com/content/early/2017/03/31/bjsports-2016-097285.

New 7. **Organised crime against the academic peer review system** discusses a new cheating method to overcome the peer reviewing procedure; a Chinese company organises the submission of paper and proposes fake reviewers to the Editors…Vigilance is more than ever needed to track unscrupulous colleagues!
http://onlinelibrary.wiley.com/doi/10.1111/bcp.12992/full?elq_mid=17322&elq_cid=2846600

New 8. Triethylene glycol (!!!) has been discovered by Mahesh K. Kaushik et al as a surprising new sleep-inducer from the Indian herb Ashwagandha *(Withania somnifera)*
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5313221/

Meeting Reports

New 1. **Integrative Medicine China 2017, China's biggest integrative medicine conference, was held in Xi'an, Shaanxi, on 28-30 April 2017** (Photograph by Dr Zhengping Gu, Shanghai).

Online resources including PPT presentations and audio recordings on ***Medicine and Integration***, ***Medicine and Nutrition***, ***Medicine and Ethics***, ***Medicine and Literature***, ***Medicine and Engineering***, ***TCM and Western Medicine, etc*** can be accessed from the following link:
http://www.medmeeting.org/video/index/105332?minisite_meetingid=&from=timeline&isappinstalled

New 2. **The 17th International Congress of the Society for Ethnopharmacology was held in Kaslik, Lebanon, 24 – 28 April 2017** (Photograph by Prof. Zhongzhen Zhao, Hong Kong)

During the meeting in Lebanon, the International Society of Ethnopharmacology (ISE) elected their board members, including GP-TCM RA BoD Members Prof. Rudolf Bauer and Prof. Thomas Efferth and members Prof. Michal Heinrich and Prof. Zhongzhen Zhao.

New 3. **2017 Congress of the International Society of Chinese Medicine, The Board Meeting of the Society and the Editorial Board Meeting of the Chinese Medicine journal were held in Macau on the 20th April 2017.** (Photograph and report by Prof. Yitao Wang, Macao)

國際中醫藥學會會員代表大會、理事會暨SCI中華醫藥學報CHINESE MEDICINE編委會今天在澳門大學順利舉行。國際中醫藥學會會員大會主席崔世昌博士、理事長謝志偉博士、監事會監事、理事會理事兼學報副主編和顧問：陳基旺特聘教授/NTU、卞兆祥講座教授/BUHK、趙中振講座教授/BUHK、林志秀教授/CUHK、李紹平教授/UM、李銘源教授/UM、執行編輯兼編輯部主任王春明教授/UM和秘書長兼學報主編王一濤講座教授等出席會議。會員代表大會決定：1）通過學會理事會提交的2016年度學會工作報告和2017年度學會工作計劃；2）選舉增補：美國車鎮濤講座教授/UCI、英國徐啓河教授/KCL、澳門莫蕙教授/MUH和學報編輯部主任王春明教授等四位學會理事；3）通過CHINESE MEDICINE新一屆編輯委員會關於學報創新與改革，爭取創建世界頂級中醫藥學報的規劃方案和措施；4）今年澳門大學中華醫藥研究院創立15週年，國際中醫藥學會和CM學報擬於10月中旬召開中華醫藥論壇暨學報全球青年編委會，歡迎全體會員和澳大校友蒞澳出席盛會！

Future Meetings & Events

New 1. **'East and West' – integrating Chinese and Western medical practices.** Following the first TCM Roundtable that I co-organized in Prague in February, there will be an official visit of the Czech Health Minister to the University of Cambridge on May 3-4 2017. Interested parties please contact Dr Tai-Ping Fan: tpf1000@cam.ac.uk
http://insight.jbs.cam.ac.uk/2017/east-and-west-integrating-chinese-and-western-medical-practices/

New 2. **Invitation to the 8th Annual Conference of TCM Pharmaceutical Aanalysis Specialty Committee of WFCMS**, which will be held in June 16-18 in Beijing. Any GP-TCM RA members who are interested in attending this meeting are advised to get in touch with President of the Committee, Past President of the GP-TCM RA, Professor De-an Guo: daguo@simm.ac.cn

3. **Invitation to "Phytomedicine and Biopiracy", Johannes Gutenberg University, Mainz, Germany on July 24-28, 2017**. An International Conference on Science and Society with the Topic "Phytomedicine and Biopiracy" will be held at Johannes Gutenberg University, Mainz, Germany on July 24-28, 2017. Professor Professor Dr. Thomas Efferth, BoD Member of the GP-TCM RA recommended: "This congress is NOT one of these numerous conference announcements, which you

are daily bothered by spam E-mails. The concept of this conference is different. We want to foster the dialogue between scientists from biosciences and humanities. As we are all working on medicinal plants and natural products, we are faced with the fair sharing of benefits from the bioprospecting of medicinal plants, which is regulated in the Nagoya Protocol of the UN Convention on Biological Diversity (see: Efferth et al., Biopiracy of natural products and good bioprospecting practice. Phytomedicine. 2016 Feb 15;23(2):166-73. doi: 10.1016/j.phymed.2015.12.006). The unfair use of traditional knowledge and genetic resources has been termed "Biopiracy". Biopiracy is a hot topic discussed in the humanities, and we as bioscientists have a lot in common to discuss with our colleagues. We like to encourage scientists from all disciplines to come to this conference, where we will discuss issues of biopiracy from various angles. Of course, we also cordially welcoming your contributions in the field of phytotherapy and phytomedicine as oral presentation or poster. We would be happy to welcome you at the Hilton Hotel in Mainz, Germany, a capital city full of history and surrounded by a wonderful landscape, which is under the protection of the UNESCO as world cultural heritage."
http://www.blogs.uni-mainz.de/biopiracyconference2017/

4. **The 16th Meeting of Consortium for Globalization of Chinese Medicine (CGCM) will be held in Guangzhou on August 18 - 20, 2017 (Friday-Sunday).** This year's meeting is going to be organized by Guangdong Provincial Hospital of Chinese Medicine. The meeting provides a platform for regulatory-industrial-academic exchanges and potential research collaborations, on various frontiers of Traditional Chinese Medicine among our worldwide CGCM members and guests. You are cordially invited to attend the meetings and submit abstracts. Preliminary programme and more details will soon be announced on the CGCM website www.tcmedicine.org. Should you have any enquiries, please feel free to contact: centraloffice@tcmedicine.org

5. ***The Lancet*–CAMS Health Summit 2017: a *Lancet* call for abstracts from China.** Abstracts are invited from China for *The Lancet*–CAMS Health Summit 2017, to be held on **Oct 13–14 2017** in Beijing. Submissions are invited from all aspects of health science including, but not limited to: translational medicine, clinical medicine, public health, global health, health policy, the environment and ecological systems and health, health professionalism, and medical education.
http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)30130-7/fulltext?elsca1=etoc

6. **The Society for the Advancement of Science in Africa** organizes the meeting *"Translational Science and Biotechnology Advances In Africa"*, to be held in Kigali, Rwanda, 4-6 October 2017. A great opportunity to discover the challenges of health, biochemical research and ecology in Africa.
http://sasascience.org/conference/2017-conference/

New 7. **An international celebration of the 500 anniversary of Li Shizhen's birth will be held in Li's homehown Jichun County, Hubei Province, China, on 26th May, 2018.** 国家中医药管理局、湖北省蕲春县政府、世界中医药联合会、中国中药协会联合发布：李时珍诞辰纪念日为 5 月 26 日。同时，国家中医药管理局和地方政府也将联合大力推动"纪念李时珍诞辰 500 周年"的筹备，并明确 2018 年 5 月 26 日将在蕲春县举行大型"蕲艾文化节"和"祭拜李时珍大典"。
http://mp.weixin.qq.com/s?__biz=MzAxMjMyMTEwNA==&mid=2660692447&idx=1&sn=3895e03e994d2f1c98befd9f4beb8eca&chksm

Invitation from Journals

1. **Invitation from, and publication of the four issue of, *World Journal of Traditional Chinese Medicine* (WJTCM). WJTCM**, ISSN 2311-8571, a new peer-reviewed journal (quarterly) launched in 2014, is the official journal of 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). PDF articles and electronic/online versions are freely available to global readers.

WJTCM has successfully published 8 issues since 2015. Full-text PDF articles and electronic/online versions are freely available to global readers: www.wjtcm.org

The latest issues can be found here: http://www.wjtcm.org:8080/ch/index.aspx

The GP-TCM RA Newsletter wishes to particular recommend you to read the following paper:
Kelvin Chan. **The Evolutional Development of Traditional Chinese Medicine Outside the Chinese Mainland: Challenges, Training, Practice, Research, and Future Development.** http://www.wjtcm.org:8080/ch/reader/view_abstract.aspx?file_no=20160026&flag=1

2. **A *Lancet* call for papers**. In September 2017, *The Lancet* will dedicate a weekly issue to health care and research in China to coincide with the centenary of Peking Union Medical College; it will be the journal's eighth such themed issue since 2008. The editors invite submissions of high-quality research from China—or from research teams working on health in China—for this issue in particular. http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)32584-3/fulltext?elsca1=etoc

Sounding Board. This column comments, views publishes and proposals for collaborations or any other features from you and your part of the world. We look forward to hearing from you! Please address to Dr Qihe Xu (qihe.xu@kcl.ac.uk), Prof. Pierre Duez (pierre.duez@umons.ac.be) and Prof. Yuan Shiun Chang (yschang0404@gmail.com)

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