

# HAPPY CHINESE NEW YEAR OF THE HORSE !!

祝会员们马年快乐,吉祥如意,心想事成



The Plum Blossom: A Symbol of Strength

## Leading News:

1. SCIENCE Breakthroughs of the Year 2013.

http://news.sciencemag.org/breakthrough-of-the-year-2013

<sup>••••••</sup>2. **NATURE**'s 10 — Ten people who mattered in the Year 2013. http://www.nature.com/news/365-days-nature-s-10-1.14367

**3. Two Prestigious Awards to Prof. De-an Guo.** Prof. De-an Guo, President-elect of the GP-TCM RA received a Wu Jieping Award for Medical & Pharmaceutical Innovation 吴阶平医学奖. Award ceremony was held on 30<sup>th</sup> November 2013. Totally there are 4 awardees all over China and each awardee is offered a 100,000 RMB prize. De-an is the only one in the pharmaceutical field. In addition, Prof. De-an Guo received a Shanghai Elite in Science and Technology Nomination Award. Award ceremony was held on 1<sup>st</sup> November 2013. De-an was among the top 20 winners in all fields and a final awardee of the nomination award. It is a very prestigious award in Shanghai in view of the fact that the selection is held every two years – across all science fields, only 10 winners were elected and 10 others receiving the nomination awards, so it is really competitive. Warmest congratulations!





## 4. Horizon 2020 calls:

*Health Work Programme 2014-2015* was published on 11<sup>th</sup> December 2013. Please note the new structure underlying Horizon 2020, with broader topics (a comprehensive frame) and a more bottom-up approach giving applicants larger room for initiative. You might find several opportunities to apply for TCM-related projects.

http://ec.europa.eu/research/participants/portal/doc/call/h2020/common/1587763-08.\_health\_wp2014-2015\_en.pdf

"Health, demographic change and wellbeing" calls can be found here: http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/index.html

In particular, in the 2014 calls several topics are flagged for cooperation with China – for instance in the field of *Food, Agriculture and Biotechnology, Information and Communications Technologies,* and *Energy.* 

**5.** H2020 call for expression for interest for experts: European Commission will soon need experts to evaluate first Horizon 2020 proposals. Calls for expression of interest for individual experts and for organisations to suggest experts have recently been published. http://ec.europa.eu/research/participants/data/support/h2020\_call-individual\_experts\_oj\_c342\_03.pdf http://ec.europa.eu/research/participants/data/support/h2020\_call-relevant\_organisations\_oj\_c342\_03.pdf

Experts, as peer reviewers, assist in the evaluation of proposals and monitoring of actions. In addition, experts assist in the preparation, implementation or evaluation of programmes and design of policies. To register yourself as an expert, please visit the Participant Portal (PP): http://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html

To access PP, first create a European Commission Authentication Service (ECAS) account. Then go to the section "REGISTER AS EXPERT" and click on it: http://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html

Please go through all the icons/tabs and complete all the fields, especially the mandatory marked with \*, including the different types of expert you would like to be.

6. The World Health Organization (WHO) has released its Traditional Medicine Strategy for 2014-2023: <u>http://apps.who.int/iris/bitstream/10665/92455/3/9789245506096\_chi.pdf</u> (English) <u>http://apps.who.int/iris/bitstream/10665/92455/1/9789241506090\_eng.pdf (</u>中文)

<sup>4</sup>7. European Medicines Agency (EMA) recent updates on regulation of Traditional Herbal Medicinal Products and related discussions:

http://www.ema.europa.eu/docs/en\_GB/document\_library/Report/2011/05/WC500106706.pdf http://anh-europe.org/news/eu-herbal-medicines-legislation-fails-again

## Obituary

### 1. Professor Man Fong Mei: Without Man Fong Mei the World is a Dimmer Place!

Professor Mei unexpectedly passed away whilst travelling in the Far East from a sudden and instant heart failure. His tragic death is a shock to the world of Chinese Medicine and beyond. He was one of those rare individuals, who could impact a life in a short amount of time. He effortlessly engaged and inspired others with informality and openness. His empathy, intellect and insatiable curiosity touched many deeply, leaving an unforgettable impression. Those that knew him even for the briefest moment are sincerely mourning his passing.





The charismatic and talented Prof. Man Fong "Benny" Mei

Benny Mei's family with friends Tai-Ping and Mohamed

Professor Mei's vision for a globalised medicine that cares for humanity and a new paradigm of medicine and health has inspired many and it is of fundamental importance that his legacy continues. His son, Don Mei, who has worked closely alongside his father for over 15 years, shall continue his valuable work. Professor Mei was forever a force for good and harmony and an inspiration for all who he touched. He will be sadly missed and the world is a dimmer place after his passing.

For a full version of Professor Mei's biography, please visit: http://www.gp-tcm.org/2014/01/obituary-without-man-fong-mei-the-world-is-a-dimmer-place/ KEY WEBSITES: mfm.acumedic.com; www.acumedic.com; www.cmir.org; www.chinalifeweb.com www.cmc-uk.org; www.cuconsortium.org.uk

On behalf of the GP-TCM RA, Dr. Tai-Ping Fan and Dr. Qihe Xu attended Professor Benny Mei's funeral and remembrance service at Highgate Cemetery Chapel in London on 24<sup>th</sup> January 2014. Following Buddhist ceremonial chanting, Benny's widow Monika recounted some of the beautiful, endearing and epic moments in their lives, while his daughter Liselle and two sons Don and Han each paid unforgettable tributes to their beloved father. To mark Benny's achievements and charismatic generosity, his good friend Lord Aaron Ward-Atherton read a memorable eulogy, punctuated by spontaneous rounds of applause from family members, friends and colleagues. David Tredinnick MP. Chairman of the All-Party Parliamentary Group for Integrated Healthcare. also sent his condolences. Despite tears of sadness during the burial, there was a tremendous feeling of love, warmth and hope at the reception in Lauderdale House to celebrate Benny's life. With soothing live classical Chinese music in the air, there were endless exchanges of heartwarming words of comfort and positive energy among Benny's family and friends. Qihe and Tai-Ping pledged their personal support in furthering Benny's pursuits in having TCM recognized and accepted in the UK and beyond. Many people offered their appreciation of Professor Mei's work as a pioneer, healer, inventor, educator, poet, philosopher and most of all, an irreplaceable true champion of TCM!

## 痛悼梅万方教授

http://www.ihuawen.com/article/12891

六十七岁正当年,匆匆何为别人间?风雨同舟十三载,黯然神伤一夕泯。 域外中医命寒涩,海内同袍痛失君。此去云山骑仙鹤,依旧回眸瞩医林。

梅万方先生一月八日在泰国遽尔仙辞,英国中医界一位坚强卫士竟这样无声无息倒下,闻者莫不扼腕叹息。现在六十七岁



应是正当英年,几周之前他在英国中医师学会学术会上还慷慨陈词,要老战友重新奋起,在英国中医师正名立法注册新契 机到来之时再奋斗一番。孰料老天不假时日,"出师未捷身先死,长使英雄泪满襟!"

早在上世纪七十年代,美国尼克松总统访华不久,针灸热在西方兴起之时,梅万方刚刚从伦敦大学物理专业毕业,他就得 风气之先,投身于英国的针灸和中医事业,开设了针灸诊所和中医书籍和用品商店。他进而与北京中医药大学合作,并且 获得北京中医药大学客座教授荣耀。有人诋毁他不是中医却称为中医教授,那是不对的。中医大学中教管理的教授多的是 。他是英国华人第一所中医学院的创始人,吸收了一大批西医师成为针灸和中药学生,至今不辍;他的管理才能是出色的 。他还经常应邀到英国和世界各地大学讲课,受到听众热烈欢迎。他还亲自给学生授课,撰写了不少有关中医的论文,弘 扬中医。他无疑是称职的。

在诊所工作中,他与同道一起,创新开发无菌消毒针灸针,现在普世界各地遍采用,成为针灸临床安全的保障。九十年代 他的诊所为戴安娜王妃治疗抑郁症有效,被媒体发现并报道后,大大提高了中医在英国的声誉。他的诊所至今仍是英国最 大中医诊所之一,病人有口皆碑。

2000年11月上议院科技特设委员会蓝皮书出炉,将中医归入"没有科学依据,与某种哲学、宗教相关的不能予以支持"的组 别。中医界奋起抗争,梅教授也积极参与进来,成立了CMIR、CMC等中医师组织,并且成为主要领导者。他的英语好, 公关能力强,将英国中医界的意见及时传递到卫生部。卫生大臣2005年初做出"保护中医师头衔、同意中医师独立而与草药 师、针灸师并列进入立法注册"的决定,是有梅先生一份重要功劳的。2012年突然传来消息,HPC要取消中医师头衔保护, 中医师归为草药师注册。2013年MHRA决定2014年起禁止再用中成药,就是因为中医师只能作为草药师注册而改弦易辙的 。中医行业蒙受重大损失,英国中医前途又成渺茫。梅教授与我们几个学会一起,决定再一次开始抗争,誓要将被无理剥 夺的中医师头衔恢复回来。现在刚刚有点起色,不想他却匆匆离去,留下了无限唏嘘、遗憾。

我相信,梅先生的中医魂正在英伦上空盘桓不去。他注视着英国中医界这一次将如何扳正历史车轮的方向,朝着康庄大道 行进。我们能不努力吗?

安息吧,梅万方教授!

英国中医师学会会长 马伯英 2014/1/11 伦敦





We are very sad to report the death of a young GP-TCM RA member, Prof. Dr Mouspatha Ouédraogo from the University of Ouagadougou, Burkina Faso.

## 2. Professor Dr Mouspatha Ouédraogo



Moustapha was trained as a pharmacist in Ouagadougou; his PhD thesis was realized in collaboration with the Free University of Brussels, Belgium, in the field of resorbable gentamicin implants. Working both in biopharmacy and in vitro and in vivo assays, he developed a full sterile manufacturing unity in Ouagadougou.

Moustapha joined the GP-TCM group in the WP3 section (Toxicology). He was quite active during the reviewing work and strongly contributed to the J. Ethnopharmacology WP3 paper; enthusiastic at GP-TCM achievements and willing to further develop the concepts of good practices in African traditional medicine, he became the first African member of our Association. He attended the Rolduc meeting where most of us met him.

Intelligent in bibliography and writing, agile with a computer keyboard, Moustapha has published a few other reviews with GP-TCM RA members. He totals 12 papers cited in Pubmed, quite a feat for a young African researcher (he was only 38 years old). With Moustapha gone, we lose both a highly promising scientist and an excellent friend. He will be sorely missed. By Pierre Duez

### **Meeting Invitations:**

**1. Please firmly book these dates in your diary:** On 18<sup>th</sup>-20<sup>th</sup> July 2014, the 3<sup>rd</sup> GP-TCM RA Annual Meeting & the 5<sup>th</sup> Annual Meeting of TCM Analysis Society of WFCMS will be held in Nanjing, China: http://www.gp-tcm.org/event/the-third-annual-meeting-in-nanjin-in-2014/





Nanjing, also widely romanised as Nankin and Nanking, is the capital of Jiangsu province. As one of the Four Great Ancient Capitals of China, it has a prominent place in Chinese history and culture, and its present name means "Southern Capital".

Located in the lower Yangtze River drainage basin and Yangtze River Delta economic zone, Nanjing was the capital of Wu during the Three Kingdoms Period and the capital of the Republic of China prior to its flight to Taiwan during the Chinese Civil War. Nanjing is also one of the fifteen sub-provincial cities in the People's Republic of China's administrative structure, enjoying jurisdictional and economic autonomy only slightly less than that of a province. Nanjing has long been a national centre of education, research, transport networks and tourism. The city will host the 2014 Summer Youth Olympics.

With an urban population of over seven million (2011), Nanjing is the second-largest commercial centre in the East China region after Shanghai. It has been ranked seventh in the evaluation of "Cities with Strongest Comprehensive Strength" issued by the National Statistics Bureau, and second in the evaluation of cities with most sustainable development potential in the Yangtze River Delta. It has also been awarded the title of 2008 Habitat Scroll of Honour of China, Special UN Habitat Scroll of Honour Award and National Civilized City.

## 2. After Nanjing, let's go to Mons in 2015!

You join the GP-TCM RA; GP-TCM RA tours you around the world. Following the 3rd Annual Meeting in Nanjing, the 4<sup>th</sup> Annual Meeting will be held in Mons, Belgium! Inhabited since the Neolithic (the renowned mining site of Spiennes, a famous prehistoric silex exporter), then seat of a Roman camp, Mons was founded in the seventh century around an oratory erected by the noble lady Waldetrude, the future Sainte Waudru, patron saint of the city. Consecrated by Charlemagne as Capital County of Hainaut, the city became, over the centuries, a military stronghold, conquered by the Dukes of Burgundy, Charles V of Habsburg, Louis XIV, the French revolutionaries, the Prince of Orange... who all left their mark in many places of the city. Mons is then deeply rooted in European culture, having successively been a Burgondese, Spanish, Dutch and French city. Coal mining and steel industries deeply transformed the hinterland of Mons, a now deeply scarred region known as "borinage" with spoil tips all over. In Cuesmes, a village nearby Mons, the predicator Vincent Van Gogh spent 2 years evangelizing the miners; after leaving, he went on to become a famous painter. A secret hope of many inhabitants is still to discover a Van Gogh painting somewhere in their attic... Sculptures of the 16<sup>th</sup> century artist Jacques du Broeucg, exposed in the collegiate Church, are world-renowned to the point that the Empress of Japan specifically requested to visit them in Mons when she came to Belgium. The Belfry and the annual festivities celebrating Sainte Waudru but also Saint-Georges' fight with a dragon are now part of the UNESCO world heritage masterpieces. A famous battle in August 1914 gave birth to the wellknown legend of the "Angels of Mons" (http://en.wikipedia.org/wiki/Angels of Mons) that will be particularly celebrated in 2014, with a planned visit of Elisabeth II. Culmination of urban renewal, the Grand' Place was repaved in 1995 and regained its old character, dominated by its Belfry.

Devoted Cultural Capital of Wallonia in 2002, Mons has been awarded the title of European Capital of Culture 2015 and is now engaged in a complete urban rehabilitation. The star architect Calatrava has been selected to design a brand new train station that will be an artistic highlight for the 2015 celebrations.





From history to 2015: Mons Impression

## Meeting reports

**1. The 10<sup>th</sup> Teleconference of the GP-TCM RA Board of Directors** was held at 9:00-11:00 GMT = 10:00-12:00 CET = 17:00-19:00 Beijing Time, on Thursday 7<sup>th</sup> Nov. 2013. The t/c was attended by Rudolf Bauer (Chair), Kelvin Chan, Tai-Ping Fan, De-an Guo, Peter Hylands, Nicola Robinson, Monique Simmonds, Vivian Wong and Qihe Xu (Minutes). Apologies were received from Pierre Duez, Aiping Lu and Rob Verpoorte. The meeting approved Minutes of the 3<sup>rd</sup> BoD Face-to-Face Meeting (30th August 2013) and received reports from President (Rudolf Bauer), Vice Presidents (De-an Guo, Qihe Xu), Secretary-General (Tai-Ping Fan) and Treasurer (Peter Hylands). Rudi summarized his activities visiting China, attending international meetings, promoting GP-TCM RA and efforts in corporate membership development in the past two months. De-an reported two prestigious awards he received recently or would receive soon and introduced the plans and progress in organizing the 3<sup>rd</sup> Annual Meeting in Nanjing (18<sup>th</sup>-20<sup>th</sup> July 2014). Qihe updated the progress on the UK-led Horizon 2020 inputs on TCM besides some house-keeping issues of the Board. Tai-Ping's report covered Membership and Interest Groups, etc. Principles on appointing Interest Group leadership were agreed. Regarding elections to be held in 2014, it was agreed that Tai-Ping will develop an election protocol and timeline according to the guidelines set out by the bylaws and Survey Monkey will be used for this election. It was agreed that Peter would develop a proposal for spending plans for the Nanjing meeting (July 2014) on travel grants, best poster awards and so on, would start to plan collecting fees for 2014; and recognizing the difficulties for China members to pay without a bank account in China, it was unanimously agreed that De-an should use our new charity status and EMA/HMPC Interested Party status to explore the possibility to establish a China branch and a RMB account. Rudi, as Chairman of the Graz 2013 Meetings, summarized the achievements of this meeting and provided discussions on GP-TCM RA activities other than meetings.

**2.** The 11<sup>th</sup> Teleconference of the GP-TCM RA Board of Directors was held at 9:15-10:15GMT = 10:15-11:15 CET = 17:15-18:15 Beijing Time = 20:15-21:15 Sydney local time, Monday 9<sup>th</sup> December 2013. The t/c was attended by Rudolf Bauer (Chair), Pierre Duez, De-an Guo, Aiping Lu, Nicola Robinson, Vivian Wong and Qihe Xu (minutes). Apologies were received from Kelvin Chan, Tai-Ping Fan, Peter Hylands, Monique Simmonds and Rob Verpoorte, but they all provided e-mail inputs to the meeting. The t/c approved the Minutes of the 10<sup>th</sup> BoD Teleconference (7<sup>th</sup> Nov. 2013). In President's Report, Rudi's introduced the Symposium on



Traditional Chinese Medicines held at EDQM Premises on 14th-15th November 2013 and the Scaling up for Healthy Growth - 2<sup>nd</sup> EIP AHA Conference of Partners, November 25 And 26 in Brussels. De-an focused his reports on the the 3<sup>rd</sup> Annual Meeting in Nanjing (18<sup>th</sup>-20<sup>th</sup> July 2014) and Qihe proposed his efforts to bridge the Association with a professional provider of secretarial service, aiming at improving membership service. Tai-Ping's and Peter's written reports included membership, election and financial updates, etc. Regarding Interest Groups, Chairs of each group was approved, but Co-Chairs are left to be decided in the future.

Group	Chairs
Quality Control 质量控制 (41)	Kelvin Chan
Pharmacology and Toxicology 药理与毒理 (60)	Pierre Duez
Clinical Studies 临床研究 (47)	Aiping Lu
Regulatory Aspects 政策法规 (40)	Tai-Ping Fan
Acupuncture - Moxibustion and Meridians 针灸和经络 (18)	Nicola Robinson

3. Scaling up for Healthy Growth - 2<sup>nd</sup> EIP AHA Conference of Partners, 25<sup>th</sup>- 26<sup>th</sup> **November in Brussels:** On Monday 25<sup>th</sup> November 2013, over 600 enthusiastic participants and other stakeholders of the European Innovation Partnership on Active and Healthy Ageing (EIP AHA) gathered in Brussels for the second Conference of Partners. They engaged in debates on the Innovation Partnership and its contribution to economic growth and job creation, and on scaling up its activities. Other sessions were devoted to the Action Groups' first years' results and next steps; and to horizontal issues. In his opening address, Health Commissioner Tonio Borg set the tone: "Europe's health systems need in-depth reforms now, if we want our citizens to benefit from high quality, efficient and sustainable health systems in the future." In the panel session dedicated to social and economic growth and employment, examples of impact 'on the ground' of innovative health initiatives were provided, in particular through the Andalusian example where 5000 jobs have been created in the field of telemedicine. Panelists pleaded also for putting people in the centre of health policies and effective use of resources. During the panel session on scaling up, information was provided on the coherence between the EIP and other Commission initiatives, from the H2020 research and Development programme till the new Active and Assisted Living Joint Programme. Special attention was given to the ERDF and other forms of regional funding, and about the smart-specialization strategies that regions need to develop now to become eligible. Then the discussion moved to the Action Groups' preliminary achievements (a year after the adoption of their action plans), mostly centered on the analysis and sharing of good practices, mutual learning; dissemination and awareness raising, and cooperation among partners. For the upcoming year the delivery targets clearly indicate large-scale deployment as the next step, including the development of a framework for organizational models, implementation and scaling up, and impact evaluation. The Conference continued the next day with a more operational focus: with Action Group workshops on the monitoring framework and on horizontal issues such as the repository of good practices (under construction), and a very animated twinning event with Reference Sites and other interested regions. These two intense days set a sound basis for the next EIP-AHA year.

### News of members and friends of the GP-TCM RA

### 1. GP-TCM RA Membership Secretary Dr. Rui Fang resigns from 31<sup>st</sup> January 2014

Due to family commitments, Dr. Rui Fang of the Royal Botanical Gardens, Kew, has decided to step down from his position as Membership Secretary. All the BoD members, particularly President Rudolf Bauer, Vice-President Qihe Xu, Secretary-General Tai-Ping Fan and Treasurer Peter



Hylands take this opportunity to thank Rui for his great efforts in developing the GP-TCM RA membership database, liaising with our members, sending out newsletters, and much more. As our Founding Membership Secretary and a Life Member, Rui will remain a very important comrade in the GP–TCM RA camp!

The BoD would like to assure all members that positive steps are being taken to enable smooth operation of the Secretariat in the near future.

## 2. Dr. Halil Uzuner, the Project Manager of the GP-TCM Consortium

Halil Uzuner invited Qihe Xu and Tai-Ping Fan to visit the Jodrell Laboratory at Kew Gardens in July 2013

Dr. Halil Uzuner, the GP-TCM Consortium Manager (August 2009 - October 2012), has been working at the Royal Botanical Gardens, Kew (Kew) since November 2012 as a Business Development Manager, leading the consultancy management team of Kew Innovation Unit (KIU), Kew's consultancy arm. KIU was set up in 2008 to maximise income through consultancy and research and development projects that utilise the wide diversity of plant and fungal expertise at Kew as well as the unique range of collections. Halil works closely with the Director of KIU, Prof. Monique Simmonds (GP-TCM RA's member of Board of Directors) dealing with wide range of consultancy and R&D projects covering extractive and energy sectors, botanical gardens and landscape design, biodiversity assessment for commerce, cosmetic/personal care, IT products, food, plant and fungi authentication as well as human well-being and drug discovery sectors. For more information, please contact Halil (h.uzuner@kew.org) or visit http://www.kew.org/businessvenue-hire/business-innovation-centre/index.htm.

3. Dr. Andreas Bender, Ms Fazlin Mohd Fauzi and Dr. Tai-Ping Fan at the University of Cambridge are delighted to inform GP-TCM RA members that their paper "Chemogenomics Approaches to Rationalizing the Mode-of-Action of Traditional Chinese and Ayurvedic Medicines" was the most downloaded article in Chemical Information and Modeling over the 12 months of 2013. http://pubs.acs.org/action/showMostReadArticles?topArticlesType=recent&journalCode=jcisd8

## **Recommended Readings**

**1. The way you say it:** How something is said is as important as the content of the message. Scientific discourse is no exception, and harsh or offensive words can easily obscure valid criticism: http://www.nature.com/nmeth/journal/v10/n10/full/nmeth.2686.html

**2. The way you ask questions**: make yourself more effective communicators in 90 seconds:



http://time100.time.com/2013/12/18/this-post-will-make-you-a-more-effective-communicator-in-90-seconds/

**3.** An identified problem is an opportunity – Two *Science* reports have exposed a thriving academic black market and misconducts in China involving shady agencies, corrupt scientists, and compromised editors—many of them operating in plain view. The commodity: papers in journals indexed by Thomson Reuters' Science Citation Index, Thomson Reuters' Social Sciences Citation Index, and Elsevier's Engineering Index.

http://www.sciencemag.org/content/342/6162/1035 http://www.sciencemag.org/content/342/6162/1019.full.pdf

**4.** The need for transparency and good practices in the qPCR literature. Bustin SA, et al. Nature Methods 2013,10: 1063–1067. Two surveys of over 1,700 publications whose authors use quantitative real-time PCR (qPCR) reveal a lack of transparent and comprehensive reporting of essential technical information. Reporting standards are significantly improved in publications that cite the Minimum Information for Publication of Quantitative Real-Time PCR Experiments (MIQE) guidelines, although such publications are still vastly outnumbered by those that do not... http://www.gene-quantification.de/bustin-et-al-mige-nature-methods-2013.pdf

For the original MIQE published in English, its Chinese, Japanese and Arabian translations, as well as many related publications please visit: http://mige.gene-guantification.info/

5. Pharmaceutical proteomics: a journey from discovery and characterisation of targets to development of high-throughput assay

http://www.europeanpharmaceuticalreview.com/23386/topics/proteomics-topics/pharmaceutical-proteomics-a-journeyfrom-discovery-and-characterisation-of-targets-to-development-of-high-throughput-assays/

6. Plant Talk: http://www.the-scientist.com//?articles.view/articleNo/38727/title/Plant-Talk/



Plants communicate and interact with each other, both above ground and below, in surprisingly subtle and sophisticated ways.

Z. Babikova *et al.,* "Underground signals carried through common mycelial networks warn neighbouring plants of aphid attack," *Ecol Lett*, 16:835-43, 2013.

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Zdenka Babikova, at the Cruickshank Botanic Garden at the University of Aberdeen in Scotland, and other plant scientists are revealing the unexpectedly complex ways that plants exchange information with one another. They are unearthing evidence that, far from being unresponsive and uncommunicative organisms, plants engage in regular conversation. In addition to warning neighbors of herbivore attacks, they alert each other to threatening pathogens and impending droughts, and even recognize kin, continually adapting to the information they receive from plants growing around them. Moreover, plants can "talk" in several different ways: via **airborne chemicals**, **soluble compounds exchanged by roots** and **networks of threadlike fungi**, and perhaps even **ultrasonic sounds**. Plants, it seems, have a social life that scientists are just beginning to understand. "In the last 15 years the idea that plants are communicating has become much more accepted," says Richard Karban, an evolutionary ecologist at the University of



California, Davis. "The evidence for that is now substantial, and it's exciting to unravel all these different realms of plant communication."

## 7. A Novel Analgesic Isolated from a Traditional Chinese Medicine.

Yan Zhang .... Xinmiao Liang and Olivier Civelli. *Current Biology* 24, 1–7, January 20, 2014 http://dx.doi.org/10.1016/j.cub.2013.11.039

*Background:* Current pain management is limited, in particular, with regard to chronic pain. In an attempt to discover novel analgesics, we combined the approach developed to characterize traditional Chinese medicine (TCM), as part of the "herbalome" project, with the reverse pharmacology approach aimed at discovering new endogenous transmitters and hormones. *Results:* In a plant used for centuries for its analgesic properties, we identify a compound, dehydrocorybulbine (DHCB), that is effective at alleviating thermally induced acute pain. We synthesize DHCB and show that it displays moderate dopamine receptor antagonist activities. By using selective pharmacological compounds and dopamine receptor knockout (KO) mice, we show that DHCB antinociceptive effect is primarily due to its interaction with D2 receptors, at least at low doses. We further show that DHCB is effective against inflammatory pain and injury-induced neuropathic pain and furthermore causes no antinociceptive tolerance. *Conclusions:* Our study casts DHCB as a different type of analgesic compound and as a promising lead in pain management.

8. The traditional Chinese medical compound Rocaglamide protects nonmalignant primary cells from DNA damage-induced toxicity by inhibition of p53 expression. M S Becker, P Schmezer, R Breuer, S F Haas, M A Essers, P H Krammer and M Li-Weber *Cell Death and Disease* (2014) **5**, e1000; doi:10.1038/cddis.2013.528 http://www.nature.com/cddis/journal/v5/n1/full/cddis2013528a.html?WT.mc\_id=SFB\_CDDIS\_1401\_PUB1000

**Abstract** One of the main obstacles of conventional anticancer therapy is the toxicity of chemotherapeutics to normal tissues. So far, clinical approaches that aim to specifically reduce chemotherapy-mediated toxicities are rare. Recently, a number of studies have demonstrated that herbal extracts derived from traditional Chinese medicine (TCM) may reduce chemotherapy-induced side effects. Thus, we screened a panel of published cancer-inhibiting TCM compounds for their chemoprotective potential and identified the phytochemical Rocaglamide (Roc-A) as a candidate. We show that Roc-A significantly reduces apoptotic cell death induced by DNA-damaging anticancer drugs in primary human and murine cells. Investigation of the molecular mechanism of Roc-A-mediated protection revealed that Roc-A specifically blocks DNA damage-induced upregulation of the transcription factor p53 by inhibiting its protein synthesis. The essential role of p53 in Roc-A-mediated protection was confirmed by siRNA knockdown of p53 and by comparison of the effects of Roc-A on chemoprotection of splenocytes isolated from wild-type and p53-deficient mice. Importantly, Roc-A did not protect p53-deficient or -mutated cancer cells. Our data suggest that Roc-A may be used as an adjuvant to reduce the side effects of chemotherapy in patients with p53-deficient or -mutated tumors.

### Acknowledgements

Contributions from Prof. Rudolf Bauer (Austria), Dr. Alexandru Sorin Costescu (European Commission), Prof. Pierre Duez (Belgium), Dr. Tai-Ping Fan (UK), Dr. Rui Fang (UK), Prof. Dean Guo (China), Prof. Nicola Robinson (UK), Dr. Halil Uzuner (UK) and Dr. Qihe Xu (UK) are gratefully acknowledged.