

Message from the President



Dear members,
the 59th annual meeting of GA is coming closer. Organized by Prof. K. Hüsni Can Baser it will be held from September 4th to 9th in Antalya, Turkey. The GA congress is organized for the first time out of Europe in Turkey where one of the first herbal books, "De Materia Medica" was written in the 1st century AD by an Anatolian doctor Pedanius Dioscorides who had served in the Roman Army as a physician. Anavarza, the birthplace of Dioscorides, is not far from Antalya.

According to the submitted abstracts we can expect an interesting and exciting congress, and I am happy to welcome again many colleagues from all over the world. The major themes of the conference represent current hot topics of medicinal plant research, like "new trends in pharmacognosy", "combination of ethnopharmacological knowhow with modern in silico tools", "infectious diseases and natural products", "metabolomics and systems biology approaches for the investigation of endophytes" "structural and functional genomics to unravel molecular modes of actions of natural products", "role of pharmacokinetics in NP research", "nutraceuticals, cosmeceuticals, functional foods – prevention of metabolic diseases", "cyclic peptides", "natural immunomodulators – a drug discovery perspective", etc. Special sessions like the "Traditional Chinese Medicine Workshop" (in cooperation with our Chinese friends), the young researchers workshops "Rapid strategies for (phyto)chemical characterization of natural products" and "Rapid strategies to assess bioactivity of natural products" and the well known and esteemed workshops "Regulatory affairs of HMPs", "Biological and pharmacological activities of natural products", "Manufacturing and quality control of herbal remedies" together with "Breeding and cultivation of medicinal plants" are some of the highlights of the meeting as well. So we are expecting an intensive exchange of information and an inspiring programme. More information about the meeting 2011 is available in this newsletter and on the homepage (www.ga-online.org).

I am convinced that it will become a global summit of medicinal plant research, and I am looking forward to meeting colleagues there from all parts of the world.

In Antalya the GA will award the Egon-Stahl-Award in Gold which is the highest scientific honour of GA and acknowledges the outstanding scientific lifetime work of a research scientist, and the "Bionorica Phytoneering Award" which has been donated by Bionorica SE, Neumarkt (Germany), and acknowledges outstanding research in the field of development and application of phytopharmaceutical products as well as excellent pharmacological and clinical studies with herbal medicinal products. The new Dr. Willmar Schwabe Research Scholarship for Young Scientists will be awarded, too.

During the forthcoming Annual Meeting in Antalya we will also organize our next member's meeting (see agenda in this NL). This year the agenda will, beside others, include the election of the GA Executive Council, and the Board of Directors (BoD) for the period 2012–2013. The current BoD has decided that 2 positions in the future BoD shall be allocated to young GA members (age about 40). All eligible members are invited to stand for this position.

Besides our annual congress, GA is again co-organizing several other symposia on medicinal plant research (for the first time also together with the Brazilian Society of Pharmacognosy), and I hope that you will have the chance to attend some of these meetings as well. You can find the corresponding information in this Newsletter or on our website. All our previous events clearly showed that there is a continuously high interest in medicinal plant research.

Since last year, a large number of colleagues have joined our Society, whom I would personally like to welcome as new and active members of the GA family; we have recently achieved approximately 1600 members from more than 80 nations.


I am very pleased that GA has developed to a globally leading society in the field of medicinal plant and natural product research, and has become a platform for the exchange of knowledge and ideas between scientists worldwide. We will try to intensify this exchange, and also the exchange between young and experienced scientists in future meetings and workshops. The newly established Dr. Willmar Schwabe Research Scholarship for Young Scientists as well as the Travel Grants of the GA will support this intension.

So I am looking forward to our 59th Annual Meeting and to seeing many of you in Antalya. I am cordially inviting all members, especially our new and young members, to attend the member's meeting.

Cordially

Brigitte Kopp
Brigitte Kopp, GA president

Notes to all GA members




Editorial remark

All contributions for the GA-Newsletter are welcome.

Deadline for submission is fixed to November 25th 2011.

Please send all contributions by e-mail:

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Deceased members

(to our knowledge)

Dr. Reinhard Liersch,
Bonn, Germany.

Dr. Hans Georg Menßen,
March 20th 2011, Berlin, Germany

The Society will keep commemoration and offers its sincere condolence.

Invitation to the Members Meeting 2011

During the 59th Annual meeting of our Society which will take place in **Antalya, Turkey**, from 4 to 9 September 2011, a regular Members' Meeting will be held. It is scheduled for **Tuesday, 6 September 2011**, 6.00 p.m. – 8.00 p.m.

Location: Maritim Pine Beach Resort Hotel Convention Center, Hall A.

This announcement in the Newsletter has to be considered as the official invitation to the Members' Meeting (in accordance with the GA bylaws), as this Newsletter is sent out to all members of our Society.

Preliminary Agenda

1. Approval of the agenda
 2. Approval of the minutes of the Members' Meeting held in Berlin on 31 Aug. 2010 (published in GA Newsletter 2-2010)
 3. Annual reports of the President, Vice-Presidents, Secretary, Treasurer and the Auditors, and discharge of the Executive Council
 4. Report of the Editor-in-Chief of *Planta Medica*
 5. Reports of the Permanent Committees
 6. Election of the Board of Directors
 - 6.1 Election of the President
 - 6.2 Election of the two Vice-Presidents
 - 6.3 Election of the Secretary
 - 6.4 Election of the Treasurer
 - 6.5 Election of the members of the Advisory Board
 7. Future congresses, symposia and workshops
 8. Miscellaneous
- On behalf of the Executive Council
Prof. Dr. Brigitte Kopp, GA President

GA on Facebook!

Since February 2011 GA has an official Fanpage on Facebook (www.facebook.com/GA.worldwide). With the use of social media the Executive Council of GA wishes to create an interactive communication platform for members from all over the world. The page is open to all Facebook users who are interested in our Society,

but shall attract particularly students and young researchers. On this page we will share the latest news related to GA with our fans and encourage members to connect with each other. Currently our Facebook page has 81 fans, and we hope that it will be many more soon!



Join us on Facebook and see the various faces of GA!

Dr. Birgit Benedek, GA Secretary

Some Data from the Membership Data Base: New GA members

The society can announce 71 new members since December 2010. The Society welcomes you all warmly and wishes that GA may get a platform for many scientific and personal contacts. We are looking forward to your active participation in many GA events! All the best for you all!

Ahmad, Syahida, Malaysia; **Aimaiti**, Nuer-maimaiti, China; **Akpa**, Paul Achile, Nigeria; **Al Ghazaly**, Radya, Libya; **Aly**, Yasser, Egypt; **AlyaaGhaZishakir**, Al-guboori, United Arab Emirates; **Bonfill**, Mercedes, Spain; **Bouari**, Maria Cosmina, Romania; **Brandstötter**, Sarah, Austria; **Caichompoo**, Wanida, Thailand; **Cardos**, Susana, Portugal; **Daher**, Constantine, Lebanon; **Elmejerhi**, Suad, Libya; **Ezekiel**, Joyce, Nigeria; **Fawehinmi**, Akinlolu, Nigeria; **Fit**, Nicodim, Romania; **Fyhrquist**, Pia, Finland; **Gafner**, Frank, Switzerland; **Ganarajan**, Sivasubramanian, India; **Ghasemi Pir-**

balouti, Abdollah, Iran; **Gupta**, Ajai, India; **Jitsaeng**, Kusuma, Thailand; **Jitvaropas**, Rungrat, Thailand; **Juengwatanatrakul**, Thaweesak, Thailand; **Kammann**, Markus, Germany; **Kasper**, Juliane, Germany; **Kassem**, Mona, Egypt; **Kim**, Dong-Jin, Kenya; **Krüger**, Anja, Austria; **Kukula-Koch**, Virginia, Poland; **Lachaud**, Christian, France; **Lawal**, Ibraheem, Nigeria; **Magalhaes**, Pedro, Brazil; **Mah**, Siau Hui, Malaysia; **Maior**, Juliana, Romania; **Marzouk**, Mona, Egypt; **Kishor**, Mazumder, Japan; **Mielke**, Monica Gabriela, Germany; **Militaru**, Andrea, Romania; **Mohammad**, Nawab, India; **Mohammed**, Halim Eshrat, Canada; **Narain**, Narendra, Brazil; **Nedialkova**, Zlatina, Bulgaria; **Niloofer**, Akhlagkhah, Iran; **Nordin**, Nurul Izza, United Kingdom; **Nurrochmad**, Arief, Indonesia; **Pop**, Dorin Augustin, Romania; **Priestley**, Fleur, United Kingdom; **Roth-Ehrang**, René, Germany; **Saenthawee-**

suk, Suphaket, Thailand; **Schäfer**, Sibylle, Germany; **Singh**, Vibha, India; **Sohretoglu**, Didem, Thailand; **Sokolova**, Rumi, Bulgaria; **Somporn**, Nuntiya, Thailand; **Strohfelddt**, Katja, United Kingdom; **Tat-simo**, Simplicie Joel, Cameroon; **Teh**, Soek Sin, Malaysia; **Thuppia**, Amornnat, Thailand; **Tiralongo**, Evelin, Australia; **Tor-Udom**, Siripen, Thailand; **Verma**, Nitin, India; **Von Trotha**, Alexandra-Friederike, Germany; **Vongsak**, Boonyadist, Thailand; **Waldmann**, Anna, Austria; **Wufuer**, Hamulati, China; **Wushuer**, Palidan, China; **Yusufoglu**, Hasan, Saudi Arabia; **Zhang**, Wei-dong, China; **Zhang**, Xiaoying, China.

Additionally we announce that Dr. N. P. **Yadav**, India, has been member of GA since 2009, but he has not been listed since 2009 in GA-Newsletter.

Dr. Birgit Benedek, GA Secretary

Obituary In memoriam Dr. Dr. Hans Georg Menßen (1941–2010)

The GA community was saddened to learn of the death of long-time GA Honorary member Dr. Hans Georg Menßen, who died at age 84 years at 09. March 2011. He was born at June 08th 1962 in Tossens, Germany, and studied medicine at University of Kiel. Later on he changed to the study of pharmacy in Würzburg (federal examination 1957) and did his Ph.D. within the group of Prof. List on the subject of

“Biogene Amine im Schwefelporling”. After a two years period as scientific assistant at Würzburg University he started within pharmaceutical industry at Nattermann company in Cologne. During his steep career towards the board of directors of this company and responsible for the area phytotherapy and phytopharmacy he developed many distinct strategies for modern pharmacognosy. 1986 he obtained the Or-

der of Merit of the Federal Republic of Germany (Bundesverdienstkreuz). 1990 he retired from his job. Dr. Menßen always strengthened various aspects of natural product chemistry and phytotherapy. He will be deeply missed in GA and by the scientific community not only as a great colleague, but also as a pioneer of Pharmaceutical Biology.

Honorary doctoral degree bestowed upon Professor Nahrstedt

On 22.12.2010 Prof. (a.D.) Dr. rer.nat. Drs. h.c. Adolf Nahrstedt was awarded with the Honorary Degree of Doctor of Pharmacy

(Medicinal Plants and Natural Products) from the University of Mahasarakham, Thailand based on his longstanding activities and support for this University.

GA congratulates!



59th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research

Welcome to Antalya!

Dear fellow GA Members,

Greetings from the Land of Pedanius Dioscorides, renowned physician at the Roman Army in the 1st century AD and the author of the famous "Materia Medica". The 59th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research will be held on 4-9 September 2011 in Antalya, Turkey, not far from the land of Dioscorides. In the International Year of Chemistry, next September, Antalya, with her natural beauties blended with history and culture will be the venue of the 59th GA Congress which is expected to be the meeting place of scientists from all over the World dealing with all aspects of medicinal and aromatic plants and natural products. With over 1000 abstracts received, the Congress is showing good signs to be one

of the most attractive events of the year. I encourage pharmacognosists, phytochemists, phytotherapists, aromatherapists, pharmacists, biologists, microbiologists, biotechnologists, chemists, physicians, regulatory agents, industrialists, etc. dealing with various aspects of medicinal plant and natural product science to join this rare feast of scientific activities, and to benefit from hearing latest scientific developments from World-calibre experts and to present their scientific findings to the learned audience of a large scientific forum.

We are ready to welcome you next September to get together with your fellow scientists in this global event in Antalya, Turkey. Please follow developments on our website www.ga2011.org and meet new friends who will attend the meeting at "ga 2011 forum" in Facebook.



I look forward to meeting you all in Antalya!
Best wishes

Prof. Dr. K. Hüsnü Can Baser,
President, GA2011 Congress

Meeting Reports

"Quality, Safety and Efficacy of Herbal Medicinal Products and Botanical Food Supplements in EC: an up-to-date view" in the occasion of Franco Francesco Vincieri's retirement and in the framework of the project "Traditional Herbal Medicinal Products of Arabic medicine"

The meeting was held on 20th December 2010 at the Aula Magna of Chiostro del Maglio in Florence, under the patronage of GA, ADRITELF (Italian Society of Pharmaceutical Technology), ESCOP (European Scientific Committee on Phytotherapy), Florence Professional Body of Pharmacists, SIF (Italian Society of Phytochemistry), SISTE (Italian Society of Herbalists) and University of Florence.

The event was sponsored by Aboca, Albrigi Luigi s.r.l., Arkopharma, Bionorica, Bresciani Dott. Marco, Byokima, Ente Cassa di Risparmio di Firenze, Florence Association of Pharmacy Proprietors, Ginsana, Indena, and Officina-Profumo-Farmaceutico di Santa Maria Novella.

More than 130 participants from Universities, Companies, including Pharmacists from hospitals, private and public pharmacies joined the meeting to honor and congratulate Franco.

The morning session was opened by Prof. Dr. Franco Alhaique (University of Rome, ADRITELF President) and by Prof. Dr.

Matthias Hamburger (University of Basel, GA vice president).

Prof. Dr. Anna Rita Bilia (University of Florence) presented the laudatio: "Franco F. Vincieri's Natural Products Research".

The salient points of more than 40 years of modern research and enthusiastic education were reported through the photos of dear colleagues and friends, starting from the sixties when Franco very young started as an avid researcher of analytical chemistry. The numerous academic appointments reflected his unique dedication to the University of Florence: vice-dean of Pharmacy, promoter and director of several courses at the University, the degree in "Tecniche Erboristiche", the masters "Prodotti medicinali della Medicina Tradizionale Cinese" and "Farmacoeconomia e Socioeconomia Farmaceutiche", the post-graduated School of Specialisation in "Farmacia Ospedaliera", coordinator of the "Agreement of Cultural and Scientific Cooperation between University of Florence and University of Aleppo (Syrian Arab republic)".

He was very active also with the extra academic appointments, being expert member of "Consiglio Superiore di Sanità", member of Commissione Permanente della Farmacopea Italiana, being President of the group of Herbal Drugs, President and Member of the board of Società Italiana di Fitochimica (SIF), member of the Consiglio Universitario Nazionale (CUN), member of Accademia dei Georgofili, referee for the evaluation of ECM (Educazione Continua in Medicina) events, national coordinator of the PRIN (Progetti di Ricerca di Interesse Nazionale) projects. Appointments at international level were also very intense: he was the Italian delegate of the HMPWG (Herbal Medicinal Products Working Group) and then of the HMPWP (Herbal Medicinal Products Working Party) of EMA (European Medicines Agency), member of the Scientific Committee and board of ESCOP (European Scientific Cooperative on Phytotherapy), supervising Editor and member of the Research Committee of ESCOP, board mem-

ber of Groupe Polyphénols, assessor of EDQM, member of TCM (Traditional Chinese Medicine) Group of the European Pharmacopoeia, European Expert Member of the EMA (European Medicines Agency). The last years of his activity were also dedicated to the Sino-Italian Joint Laboratory on Traditional Chinese Medicine (JoSIL) and to the “Chinese-Italian Joint Committee on Cooperation of Traditional Chinese Medicine (TCM) products” between the Italian Health Ministry and State Administration of Traditional Chinese Medicine People’s Republic of China. In 2010 Franco was also Visiting Professor at the Tianjin University of Traditional Chinese Medicine (TCM). He has also received some awards from ESCOP, a medal of Arbeitsgemeinschaft Für Pharmazeutische Verfahrenstechnik E.V. (APV, International Association for Pharmaceutical Technology) and in 2008 a special issue of the “Natural Product Communication” (2008, 3(12), 1941–2166) on occasion of his 70 birthday.

He was a successful example of youthful enthusiasm for research and some of his studies have been recognised at international level: polyphenols of wine and olive oil, studies on *Sedum telephium* L. ssp. *maximum* Schinz & Thell., *Oenanthe aquatica* (L.) Poir., NMR as an alternative or integrative spectroscopical separation of constituents with a non-chromatographic approach to obtain a real and complete fingerprint for the authentication, quality control and stability testing of HDs, HDPs and HMPs and detection of eventual unexpected compounds.

Finally, recent studies on nanomedicine using actively targeted nanovectors containing natural antiplasmodial and antitumor constituents were briefly reported. Prof. Dr. Rudolf Bauer (University of Graz) gave a talk entitled “Marco Polo’s heritage: The influence of Chinese medicine in Europe”. He started the speech with a description on the principal Roman trade routes till China for the market of Chinese silk, to continue with Marco Polo who renewed the Western attention for China. Among the plants imported in Europe, chives are very representative, used as food for 5,000 years, first by Chinese and then by Greeks and Romans. They were supposed to have magical powers and used to protect from diseases and evil spirits. In the middle age chives were also used for anti-ageing and beauty and in modern times many biological activities have been recognized to these plants. Prof. Bauer gave an outstanding overview of how can Chinese herbs be used in Western medicine, first of all as isolated active principles such as the successful drug discovery of artemisinin, camptothecin, huperzine A, the activity guided isolation of new quinolinone alkaloids from *Evodia rutaecarpa* fruits with inhibitory effect on leukotriene biosynthesis. Last emphasis was given to the needs to control adulteration and substitution concluding the speech with the “100 % natural” Herba Gra containing ... pharmacological active doses of sildenafil.

Prof. Dr. Gerhard Franz (University of Regensburg, Eur. Pharm., Chair of TCM group) gave an outstanding talk on “Qual-

ity and Safety of TCM Herbal Drugs for Europe”. Starting from the bases and long history of TCM, based on multicomponent drugs and respective mixtures (more than 5000 Herbal Drugs, ca. 1500 Animal Drugs, and 80 Minerals) he strongly reminded the need of evidence for the quality and efficacy of TCM. Then he gave an overview of the actual situation in Europe for the market of TCM evidencing that their utilisation is often a high risk potential for the patient. Current problems with TCM Herbal Drugs can be related to their consistent identity, definition, quality and evidence for efficacy. He described the working programme TCM Herbal Drugs at the European Pharmacopoeia and the structure of monographs for giving a modern quality standard and to facilitate and encourage use by practitioners for safe, authorised products.

Prof. Dr. Brigitte Kopp (University of Vienna, GA President) reported on “Drug discovery from nature – trial and error”. She focused her speech on some poisoning plants known since antiquity for both their efficacy and toxicity according to the dose (“dosis facit venenum”), the “exact” dose! Emblematic was the history of *Digitalis* known in Egypt and ancient Rome as diuretic and toxic, developed in Europe in the eighteen century as a diuretic for the treatment of dropsy and oedemas and beneficial for heart problems, for the treatment of madness a century later, nowadays still used as first line therapy in the treatment of cardiac problems in the form of isolated steroid glycosides and the future as possible new anti-cancer agents.



Cocaine was also reported as a tremendous example used from ancient times, re-discovered in modern times as an ingredient of sparkling wine for good health, back to medicine and later to poison ... and from poison back to medicine again, as model substance for synthetic local anesthetics.

Prof. Dr. Hermann Stuppner (University of Innsbruck) gave a talk entitled "Pharmacophore-based virtual screening – A valuable tool for lead-finding from natural products".

He reported how the selection of drugs historically has been generated from natural products and from compounds derived from natural products but the recent introduction of high-throughput screening and combinatorial chemistry diminished interest in natural products-based drug discovery. However, nature still is a rich source of new drugs being mostly of the plant species still unexploited. Interestingly he reported the basic concept of the pharmacophore-based virtual screening and *in silico* screening-strategies. Some succes-

ful case studies were also discussed and concerned the prediction of specific interactions of natural compounds with biological targets, including acetylcholinesterase and cyclooxygenase inhibitors, XIAP-inhibitors of apoptosis, the subunit β of I κ B kinase and PPAR-gamma receptors. This method could really represent a rationalized selection of potential pharmacological targets, an indispensable tool in modern and rapid lead discovery, time-saving and cost-effective.

Afternoon session was chaired by Prof. Dr. Massimo Curini (University of Perugia, SIF President) who presented Prof. Dr. Ioanna Chinou (University of Athens, vice-Chair of WPHMPC) "The development of monographs and List of Herbal Medicinal products–Greek experience"

Prof. Chinou opened the speech with the definition of HD, HDP, HMP by Directive 2001/83 EC as amended by 2004/24/EC and the procedure for their registration in Europe. She reported the tasks of the Committee for Herbal Medicinal Products of EMA and the legal basis for Community

Herbal Monographs and the structure of monographs at HMPC which include the scientific summary of all data available on the safety and efficacy of a herbal substance / herbal preparation intended for medicinal use. The talk was then turned to the Greek experience and closed with the image of pomegranate, the symbol of long life, dedicated to Franco.

A vivacious round table on "Herbal Medicinal Products and Botanical Food Supplements in EC: a global view" concluded the meeting. Participants were Anna Rita Bilia (ESCO), M. Fawaz Chenha (University of Aleppo), Valentino Mercati (Aboca), Paolo Morazzoni (Indena), Vittorio Silano (EFSA) and Marinella Trovato (SISTE, AESGP).

I would like to express our best wishes to Franco using the affectionate and friendly words of our President Prof. B. Kopp: "Dear Franco, vigour and health for the next years to continue your work and to be able to cultivate new activities as well as find time for those from the past!"

Prof. A. R. Bilia

News on regulatory affairs



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

What's on top of European Medicines Agency EMA concerning Herbal Medicinal Products?



Herbal Medicinal Products – New Regulatory Developments in Europe

Like all medicinal products, herbal medicinal products have to prove their quality, efficacy and safety. However, due to their specific character as complex mixtures of natural origin, they deserve special attention with regard to the assessment of their quality, efficacy and safety. Quality criteria for herbal drugs and herbal preparations are laid down in the European Pharmacopoeia. For the assessment of efficacy and safety of these mostly well-known substances, two options can apply according to the EC legislation: the "well-established medicinal use" with a marketing authorization based on clinical studies

and/or bibliographic references, or the "traditional use" with a registration based on tradition and experience. The respective assessment criteria which can be used by applicants and health authorities are provided by the documents elaborated by the Committee on Herbal Medicinal Products (HMPC) and published by the European Medicines Agency (EMA). A brief update of these regulatory activities, of recent developments with regard to quality criteria of the European Pharmacopoeia as well as of the work of ESCOP, the European Scientific Cooperative on Phytotherapy, will be given in the following.

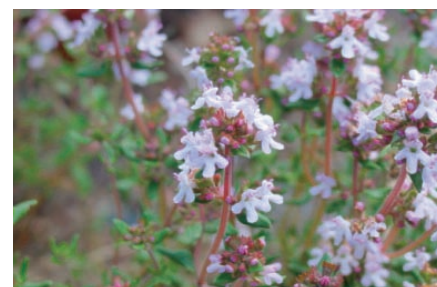
The Committee on Herbal Medicinal Products

In September 2010, the Committee on Herbal Medicinal Products (HMPC) which was founded in 2004 at the European Medicines Agency (EMA) extended farewell to Dr. Konstantin Keller whose second and last mandate had expired. In the November 2010 meeting, Dr. Werner Knöss, Germany, was elected new Chair and Dr. Ioanna Chinou, Greece, was re-elected vice-Chair for a 3-years term of office. She is also Chairperson of the Working Party on Community Monographs and Community List (MLWP). Dr. Marisa Delbò from Italy was elected Vice-Chair of the MLWP with a 3-years mandate that started on 31 March 2011. One of the tasks of the HMPC is the preparation of Community herbal

monographs in the area of "well-established medicinal use" and for traditional herbal medicinal preparations. Furthermore, the HMPC has been working on numerous guidelines for the assessment of quality, efficacy and safety of herbal and traditional herbal medicinal products. In all of the meetings, of which 6 per take place per year, many new guidance documents were discussed in the HMPC's working parties and subgroups. A brief update on some important new documents which might be of particular interest from a scientific point of view, shall be given in the following. All these documents can be found on the EMA website (www.ema.europa.eu) in the specific area of herbal medicinal products.

Community herbal monographs and list entries

After preparation and discussion in the MLWP, the following monographs were fi-





nally adopted by the HMPC and published on the EMA website during the past few months:

- *Arctium lappa* L., radix
- *Arctostaphylos uva-ursi* (L.) Spreng., folium
- *Cimicifuga racemosa* (L.) Nutt., rhizoma
- *Hedera helix* L., folium
- *Juniperus communis* L., aetheroleum
- *Leonurus cardiaca* L., herba
- *Potentilla erecta* (L.) Raeusch., rhizoma
- *Quercus robur* L., and *Quercus pubescens* Willd., cortex
- *Tanacetum parthenium* (L.) Schulz Bip., herba
- *Thymus vulgaris* L. and *Thymus zygis* Loefl. ex L., aetheroleum
- *Trigonella foenum-graecum* L., semen
- *Viola tricolor* L. and/or subspecies *Viola arvensis* Murray (Gaud) and *Viola vulgaris* Koch (Oborny), herba cum flore
- *Vitex agnus-castus* L., fructus

It is important to note that many of the comments submitted by various organizations have been taken into consideration when the documents were finalized. E.g. in the final monograph on *Cimicifuga racemosa* the indications (“for the relief of menopausal complaints such as hot flushes and profuse sweating”) as well as the special warnings (“patients who have been treated or who are undergoing treatment for breast cancer or other hormone-dependent tumours should not use Cimicifuga preparations without medical advice”) were modified. For *Vitex agnus-castus* a well-established medicinal use was accepted for a specific extract which was not yet included in the respective draft monograph. In the final monograph on *Hedera helix* a dosage recommendation for the use in younger children was added in accordance with the comments submitted on the basis of data from clinical studies.

For further background information on all finalized monographs, several accompanying documents are available which were

prepared in the MLWP. These documents comprise HMPC opinions, assessment reports, lists of bibliographic references and overviews of comments received during the consultation period. In some cases, assessment reports and reference lists are already published at an earlier stage, thus providing more clarification on the proposals made in the draft monographs and facilitating the preparations of comments.

Upon recommendation of the MLWP, a number of draft monographs were released for public consultation within a 3-months deadline, e.g.

- *Achillea millefolium* L., herba
- *Cynara scolymus* L., folium
- *Lavandula angustifolia* Mill., aetheroleum
- *Oenothera biennis* L., oleum
- *Olea europaea* L., folium
- *Pelargonium sidoides* DC and/or *Pelargonium reniforme* Curt, radix
- *Plantago lanceolata* L., folium as well as
- *Thymus vulgaris* L. and *Thymus zygis* L., herba; *Primula veris* L. and *Primula elatior* (L.) Hill, radix

as the second example of a draft monograph describing a fixed combination.

Although there is some clinical data existing, for *Cynara scolymus* only a traditional use “for the symptomatic relief of digestive disorders such as dyspepsia with a sensation of fullness, bloating and flatulence” was accepted by the HMPC. The draft monograph on *Plantago lanceolata* describes a traditional use “as a demulcent for the symptomatic treatment of oral or pharyngeal irritations and associated dry cough”.

A draft Public Statement on *Chelidonium majus* L., herba, concludes that currently available clinical and toxicological data was not considered adequate to fulfil the criteria required for developing a Community herbal monograph. The HMPC was of the opinion that the extent and the quality of scientific data have not been sufficient to come to a positive benefit-risk assess-



ment for oral treatment. This is, however, different from the decision of the German health authority of April 2008 who permitted further marketability of the products with a restriction of the daily dose of alkaloids.

Interestingly, clarification on the interpretation of Directive 2001/83/EC had been received from the European Commission as regards indications appropriate for traditional herbal medicinal products. This might be of high relevance for the assessment of *Urticae radix* and *Cucurbitae semen* in the treatment of symptoms associated with benign prostate hyperplasia (BPH). The release of the final monograph or the draft, respectively, is expected soon.



Current overviews of the status of the HMPC assessment work can be found on the mentioned website, indicating for which projects a rapporteur has been assigned, a draft is under discussion or published, the assessment is close to finalisation or a final opinion has been adopted. It should be mentioned in this context that interested parties, e.g. scientific organizations from all over Europe, should take the opportunity to comment on the drafts monographs in case they do not agree with their content, e.g. with regard to indications, dosage recommendations or risk information.

HMPC guidance documents on quality

The final “Reflection paper on the level of purification of extracts to be considered as herbal preparations” provides guidance on how to distinguish between extracts that might be regarded as herbal preparations and thus may utilize the respective existing guidance documents, and extracts that might be classified as isolated herbal constituents. Concerning refined extracts, a critical threshold for a case-by-case evaluation was generally considered to be above 70 per cent of the active constituent(s). Some examples which are considered to be herbal preparations or not, respectively, are given in the annex to the document.

A revised and extended Question & Answers document on quality matters for



herbal medicinal products was published. It includes also 12 new issues on stability that complement the existing reflection paper on stability testing.

Safety issues

A draft Public Statement on the use of herbal medicinal products containing thujone was released for public consultation. Once adopted, the respective monographs on thujone-containing plants may be changed accordingly.

In order to stimulate the conduct of investigation of herbal medicinal products in children and to make paediatric data on authorized products available, a draft "Reflection paper on the necessity of initiatives to stimulate the conduct of clinical

studies with herbal medicinal products in the paediatric population" was prepared. It states that research is not limited to randomized clinical trials, but that in some situations observational studies using validated tools can have advantages. Furthermore, specific post-marketing surveillance studies to define the long-term safety of herbal medicines are considered useful.

In November 2010 the MLWP met representatives from the German Kooperation Phytopharmaka in order to discuss the issue of genotoxicity studies. The ongoing collaborative testing which was initiated by this organization as well as experiences with the respective HMPC guidelines were presented. In particular the bracketing and matrixing principle for herbal extracts is considered a most useful tool to reduce extend and costs of testing for the companies concerned.

The European Pharmacopoeia

The revised monograph "Herbal Drugs", valid since July 2010, for the first time sets European-wide maximum limits for heavy metals with lead 5 mg/kg, cadmium 1 mg/kg and mercury 0.1 mg/kg. Prior to the discussion in the respective committees, the evaluation of a database had been submitted [1] which contains a large amount of findings from practical experiences. For extracts, the same limits have been proposed.

The book version of 7th edition of the European Pharmacopoeia includes a separate part on herbal drugs and herbal drug preparations. Individual monographs are complemented by illustrations in order to facilitate microscopic identification. Revi-

sions of monographs have been proposed e.g. for St. John's wort dry extract (water content instead of loss on drying), Black cohosh (content of triterpene glycosides and tests on other species), Hawthorn berries (wave length and specific absorption) and Chromatographic Separation Techniques (e.g. use of smaller columns). A new monograph on Nettle root proposes e.g. an exemption for the limit of lead. Furthermore, the European Pharmacopoeia is actively working on monographs on materials and preparations used in Traditional Chinese Medicine in order to establish quality criteria for these products.

According to the draft monograph "Water for preparation of extracts", in principle potable water can be used if additional specifications such as a maximum conductivity are set. Following a long-lasting discussion e.g. on the medium to be used for microbiological testing, the monograph has been adopted for inclusion into the European Pharmacopoeia.

European Pharmacopoeia draft monographs are published in the Journal *Pharmeuropa* which appears four times a year. Comments submitted e.g. by scientific organizations or individuals should be addressed to the national health authorities or the European Directorate for the Quality of Medicines and Healthcare (EDQM), Strasbourg, within three months after publication.

Dr. Barbara Steinhoff; German Medicines Manufacturers Association (BAH); Co-chairperson of the ESCOP Scientific Committee; Ueberstr. 71-73; D-53173 Bonn, Germany, steinhoff@bah-bonn.de

News from ESCOP



ESCOP, the European Scientific Cooperative on Phytotherapy, was founded in 1989 as a European umbrella organisation of national associations of phytotherapy. One of its most important tasks is the preparation of monographs on the medicinal use of plant and preparations thereof, thus contributing to the establishment of harmonised assessment criteria on safety and

efficacy on a European level. Far more than 100 monographs including revisions do already exist. After the successful online publication of the updated and expanded monograph on *Cimicifugae rhizoma*, ESCOP is working on new monographs as well as further revisions of existing monographs which are intended to be published on the newly relaunched

ESCOP website (www.escop.com) for download.

Like GA, ESCOP will also contribute to the scientific congress performed in Vienna by the scientific societies from Austria, Germany and Switzerland in May 2012.

Dr. Barbara Steinhoff

and their Institutes of Pharmacognosy: International, Interesting and Cooperative

We introduce and present major research groups working in the field of medicinal plants and natural products with their special characteristics. In this Newsletter:

GA has about **16** regular members from **France**. The major working groups have prepared a short presentation of the group and the activities.



Paris Descartes University Centre for Phytochemistry and Pharmacology

Group leader and head of institution:	Sylvie Michel
Email:	sylvie.michel@parisdescartes.fr
Address:	Laboratoire de Pharmacognosie de l'Université Paris Descartes, U.M.R./C.NRS No. 8638, Faculté des Sciences Pharmaceutiques et Biologiques, 75006 Paris, France.
Working areas:	<ul style="list-style-type: none">• Isolation, structure determination and synthesis of bioactive natural products, mainly from medicinal tropical plants,• Natural bioactive compounds, their synthetic analogs and derivatives,• Antitumor active compounds (anthracyclines analogs and prodrugs according to the ADEPT concept; new acronycine analogs; antivasular heterocyclic compounds analogs of combretastatin),• Antitubercular active compounds: pyranodibenzofurane analogs of usnic acid.
2 publications, representing the institution:	<p>Boutefnouchet S et al. 2008. Synthesis, cytotoxic activity, and mechanism of action of furo[2,3-c]acridin-6-one and benzo[b]furo[3,2-h]acridin-6-one analogues of psorospermin and acronycine. <i>J. Med. Chem.</i> 51, 7287–97.</p> <p>R. Grougnet, et al. 2011. Dammarane Triterpenes from <i>Gardenia aubryi</i>. <i>Helv. Chim. Acta</i>, 2011, 94, 656–661.</p>
Coworkers:	PhD: 10 Postdocs: 2
The “speciality” of institution:	Natural product chemistry

University of Bourgogne

Name and address of institution:	Lab Pharmacognosy-Faculty of Pharmacy, Univ Bourgogne, 7 Bd Jeanne d'Arc, 21033 Dijon cedex, France Belonging to the research team UMIB “Molecules of biological interest”
Email:	Marie-aleth.Lacaille-Dubois@u-bourgogne.fr
Homepage:	http://www.u-bourgogne.fr
Head of institution:	UMIB team (dir Marie-Aleth Lacaille-Dubois), EA 3660
Working area (max. 3 sentences):	Isolation (CC, Lobar LPLC, MPLC, 1/2 prep HPLC), structure determination (FABMS, ESIMS, 1D and 2D NMR: COSY, NOESY, TOCSY, HMQC, HMBC) and analysis (TLC, HPLC, GC) of biologically and pharmacologically active compounds of medicinal plants, particularly in the field of triterpenoids, steroids, polyphenols, alkaloids: drugs with cytotoxic, apoptosis inducers, immunostimulant, antifungal and antiproliferative activity.

12 publications,
representing
the institution:

Timité G. et al. 2011. Cytotoxic oleanane-type saponins from *Arenaria montana*, *Phytochemistry*, 72, 503–507.
Acharya, D. et al. 2010. Steroidal saponins from the Roots of *Chlorophytum orchidastrum*. *J. Nat. Prod.* 2010, 73: 7–11.

Coworkers:

UMIB 3 persons (teaching & research), 3 technical staff, 6 Ph.D. students and 1 Postdoc

The “speciality”
or the unique selling
proposition of institution:

Saponins from the African and Asian biodiversity

MA Lacaille-Dubois



Université de Bordeaux

Name and address
of institution:

Biologically Active Plant Substances Study Group (EA 3675) – UFR Pharmacie / Université de Bordeaux
Institut des Sciences de la Vigne et du Vin – CS 50008 – 210, Chemin de Leyssotte / F-33882 Villenave d’Ornon,
France.

Head of institution:

Professeur Jean-Michel Mérillon

Email:

jean-michel.merillon@u-bordeaux2.fr

Homepage:

<http://www.gesvab.u-bordeaux2.fr>
<http://www.polyphenols-biotech.u-bordeaux2.fr>

Working areas:

Vine polyphenols and neuroprotection:

- Isolation of original stilbenes from vine and wine using centrifugal partition chromatography, LC-MSⁿ and LC-NMR.
- Study of polyphenol neuroprotective properties (polyphenol/beta-amyloid interaction, central antiinflammatory activity of polyphenols)

2 publications,
representing
the institution:

Richard T., et al. (2011).
Neuroprotective properties of resveratrol and derivatives. *Ann. Acad. NY Sci.*, 1215, 103–108.
Bisson J., et al. (2010). Development of hybrid elution systems for efficient purification of stilbenoids using centrifugal partition chromatography coupled to mass spectrometry. *J. Chrom. A*, doi:10.1016/j.chroma.2011.03.020

Coworkers:

Permanent staff: Pr. JM Mérillon, Pr JP Monti, Dr A Badoc, Dr Dr S Cluzet, Dr G Da Costa, Dr A Decendit,
Dr JC Delaunay, Dr S Krisa, Dr D Lanzman, Dr T Richard, Dr C Rivière, Dr X Vitrac, Dr P Waffo-Tégou; PhD: 5;
Postdocs: 3

The “speciality” or
the unique selling
proposition of institution:

Technology transfer unit “Polyphenols Biotech”
Chemical and biological evaluation of stilbenoids

Running projects with
industrial partners?

Regular contracts with industries in the cosmetics, food processing and pharmaceutical sectors, primarily
analysing the polyphenolic profile of plant extracts and screening of biological properties



University of Rennes

Name and address of institution:	Lab Pharmacognosy-Mycology Faculty of Pharmacy, Univ Rennes1, 2 av Pr L Bernard, 35043 Rennes cedex, France. Belonging to the research team PNSCM "Natural Products, Synthesis and Medicinal Chemistry"
Email:	Joel.Boustie@univ-rennes1.fr
Homepage:	http://www.scienceschimiques.univ-rennes1.fr/equipes/pnscm/
Head of institution:	PNSCM group (director Joel Boustie), included in UMR 6226 SCR
Working areas:	The PNSCM team "Natural Products, Synthesis and Medicinal Chemistry" has a common objective to provide active molecules in the field of health (cancer and particularly skin cancers, CNS, antiinflammatory and antibiotics) or cosmetics (UV sunscreens, skin pigmentation). Natural product phytochemistry is mainly focused on lichen metabolites which serve as scaffolds or models for chemical optimisation or total synthesis
2 publications, representing the institution:	M. Millot et al. 2009. A novel diphenyl ether from the lichen <i>Diploicia canescens</i> . J. Nat. Prod 72, 2177–2180. C. Roullier, et al. In press 2011. Characterization and identification of mycosporines and MAAs in lichens. Isolation of mycosporine hydroxyglutamicol from <i>Nephroma laevigatum</i> Ach. <i>Phytochemistry</i> .
Coworkers:	PNSCM 15 persons, including teaching and research staff + 7 technical staff + 7 Ph.D. + 2 Postdocs The "Natural Product" group represents 1/4 of PNSCM
The "speciality" or the unique selling proposition of institution:	Lichen secondary metabolites

Sophie Tomasi
(left)
Joel Boustie
(holding a lichen)
Françoise Le Devehat
(right)



LVMH Recherche

Name and address of institution:	LVMH Recherche, 185 avenue de Verdun F-45800 St Jean de Braye France
Email:	fredericbonte@research.lvmh-pc.com
Contact:	Frédéric Bonté Director of scientific communication
Working area (max. 3 sentences):	<ul style="list-style-type: none">• Phytochemistry, medicinal plants, secondary metabolites, natural products.• Triterpens, diterpens, saponins, ecdysteroides, sterols, stilbenoids.• Research on new active ingredients and molecules for skin care.• Human Skin biology (epidermal differentiation, dermal extracellular matrix, pigmentation, aging)
Coworkers:	PhD: 4 Postdocs: 2
The "speciality" or the unique selling proposition of institution:	<ul style="list-style-type: none">• Research and development of cosmetic products.• Expertise in phytochemistry, cell culture, cosmetic formulation and evaluation.
Running projects with industrial partners?	As industrial company strong cooperation with international partners



(Notices of Ph.D- and diploma thesis to the editor are welcome any time!)

Ph.D. thesis (2011) *Eupatorium perfoliatum* L.: Phytochemical characterisation and functional in vitro investigations on anti-inflammatory, antiviral and antiprotozoal activity (in german). By: Mareike Maas; Promoter: Prof. Dr. A. Hensel, Institute of Pharmaceutical Biology and Phytochemistry, University of Muenster, Germany.

Ph.D. thesis (2011) Isolation of oligomeric procyanidines from *Crataegi folium cum flore* and *in vitro* absorption studies in the Caco-2 cell system (in german). By: Stefanie Zumdick; Promoter: Prof. Dr. A. Hensel, Institute of Pharmaceutical Biology and Phytochemistry, University of Muenster, Germany.

Ph.D. thesis (2011) Exploring natural products for treatment and prophylaxis of malaria. By: Ina L. Lauinger; Promoter: Dr. Deniz Tasdemir, School of Pharmacy, University of London, U.K.

Ph.D. thesis (2011) Comprehensive extraction and NMR-based metabolomics: Novel approaches to natural products lead finding in drug discovery. By N.D. Yuliana. Promoter: Prof. Dr. R. Verpoorte, Leiden University, The Netherlands.

Ph.D. thesis (2011) *Dianthus versicolor* FISCH. – Phytochemical and biological investigations of a traditional Mongolian medicinal plant. By: Astrid Obmann; Promoter: Prof. S. Glasl-Tazreiter, Department of Pharmacognosy, University of Vienna, Austria.

Ph.D. thesis (2010) Reactions and separations in green solvents. By J. van Spronsen. Promotors Prof. Dr. G.J. Witkamp and Prof. Dr. R. Verpoorte, Technical University Delft, The Netherlands.

Ph.D. thesis (2010) NMR-based metabolomic characterization of *Vanilla planifolia*. By T.L. Palama. Promotors: Prof. Dr. R. Verpoorte, Leiden University The Netherlands, and Prof. Dr. H. Kodja, Université de Reunion, France.

Ph.D. thesis (2010) The Orca-ome as a key to understanding alkaloid biosynthesis in *Catharanthus roseus*. By G. Hasnain. Promotors: Prof. Dr. J. Memelink and Prof. Dr. R. Verpoorte, Leiden University, The Netherlands.

Ph.D. thesis (2011) Sustainable production of cannabinoids with supercritical carbon dioxide technologies. By H. Perrotin-Brunel. Promotors Prof. Dr. G.J. Witkamp and Prof. dr. R. Verpoorte, Technical University Delft, The Netherlands.

Ph.D. thesis (2010) Wirkmechanismus und wirksamkeitsbestimmende Inhaltsstoffe

von Thymianextrakten: Beeinflussung der Endothelin- und Thromboxanwirkung und der cAMP-Konzentration am Ratten-tracheamuskel. By: Jonas Engelbertz; Promoter: Prof. Dr. E.J. Verspohl, Medicinal Chemistry, Pharmacology, University of Muenster, Germany.

Ph.D. thesis (2010) Morphologische und immunologische Beschreibung der Bronchialepithelzelllinie BEAS-2B und vergleichende Messung der ziliären Schlagfrequenz in verschiedenen Modellen unter Verwendung von Testsubstanzen. By: Corinna Böckenholt; Promoter: Prof. Dr. E.J. Verspohl, Medicinal Chemistry, Pharmacology, University of Muenster, Germany.

Ph.D. thesis (2010) Phytochemical and biological studies of *Vanda coerulea* Griff ex Lindl. and *Vanda teres* 'Roxb.' Lindl. (orchidaceae). by: Charlotte Simmler. Promoter Prof. Annelise Lobstein, University of Strasbourg, France.

Ph.D. thesis (2010) Mise au point de méthodes extractives (micro-ondes, liquides ioniques) et séparatives (CPC, résines, adsorbantes) pour l'obtention de composés lichéniques. Extractive and separative methods optimised for lichen compounds: microwaves, ionic liquids, CPC, adsorbing resins By: Sarah Bonny; Promoter: Dr Sophie Tomasi, PNSCM team in Chemical Sciences of Rennes UMR/CNRS, Univ Rennes 1, France.

Ph.D. thesis (2010) Vers la synthèse totale d'un dérivé lichénique l'uncialamycine. Towards synthesis of a lichen derived compound: uncialamycine//By: Sandy Desrat; Promoter: Prof. Pierre van de Weghe, PNSCM team in Chemical Sciences of Rennes UMR/CNRS, Univ Rennes 1, France.

Ph.D. thesis (2010) Molécules lichéniques d'intérêt pour les cancers photoinduite: étude de *Lichina pygmaea*. Lichen compounds against photoinduced cancers : phytochemical study of/ *Lichina pygmaea* /By: Catherine Roullier; Promoter: Dr Marylene Chollet and Prof. Joel Boustie, PNSCM team in Chemical Sciences of Rennes UMR/CNRS, Univ Rennes 1, France.

Ph.D. thesis (2010) Analysis of chemical compounds in *Rhododendron* species and their activity on eukaryotic cells. By: Ruxandra Popescu. Promoter: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Master thesis (2011) Analyse und Isolierung sulfatierter und glykosilierter Flavonoide aus der mongolischen Arzneipflanze

Myricaria longifolia. By: Barbara Kubasa; Promoter: Prof. S. Glasl-Tazreiter, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis in Pharmacy (2011) Application of hyphenated techniques in quality control of dietary supplements. By: Clizia Guccione; Promotors: Prof. Anna Rita Bilia and Dr. Anastasia Karioti, Faculty of Pharmacy, university of Florence, Italy.

Diploma thesis (2011) Monographie für das Österreichische Arzneibuch (ÖAB): Erstellung der neuen Monographie „*Peucedani Radix*“. By: Katharina Waldbauer. Promoter: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2010) Untersuchungen zur Kooperativität von Inhaltsstoffen des Phytopharmakons STW5 auf den Tonus und die ACh-induzierte Kontraktion an Colonpräparaten der Ratte. By: Franziska Herr. Promoter: Prof. Dr. Karen Nieber, University of Leipzig, Germany.

Diploma thesis (2011) Quantifizierung von Isoflavonen in Soja- und Rotklee-Präparaten mittels narrow bore HPLC. By: Katharina Weinfurter. Promoter: Ao. Univ.-Prof. Liselotte Krenn, Department for Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2010) Anxiolytic activity of the flavonols kaempferol, quercetin and myricetin and their corresponding hydroxyphenylacetic acid metabolites in the elevated plus maze. By Cica Vissiennon. Promoter: Prof. Veronika Butterweck, University of Florida and Prof. Dr. Karen Nieber, University of Leipzig, Germany.

Diploma thesis (2010) Phytochemische und pharmakologische Untersuchungen von *Pluchea* sp. By: Mareike Seelinger. Promoter: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2010) Phytochemische Untersuchungen: von der Grundlagenforschung zur Arzneibuchmonographie. By: Johannes Köhbach. Promoter: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2010) Phytochemische Untersuchungen an ausgewählten Drogen der Traditionellen Chinesischen Medizin (TCM). By: Isabella Sprinzl. Promoter: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2010) Phytonutriments and chemoprevention – role of polyphenols in prevention of colorectal cancer or



chronic diseases. By: Katharina Schüller.
Promotor: Prof. B. Kopp, Department of
Pharmacognosy, University of Vienna,
Austria.

Diploma thesis (2010) Screening of various
extracts of *Artemisia dracunculus* L. for
antidiabetic activity in rats. By: Weinöhrl
Stefanie Elisabeth. Promotor: Prof. B.
Kopp, Department of Pharmacognosy,

University of Vienna, Austria, and Prof. V.
Butterweck, College of Pharmacy, Univer-
sity of Florida, U.S.A.

Diploma thesis (2010) Überarbeitung von
ausgewählten Monographien des ÖAB:
Flos Croci und Tinctura Calami. By:
Monika Hess. Promotor: Prof. B. Kopp,
Department of Pharmacognosy, University
of Vienna, Austria.

Editorial remark

All contributions for the GA-News-
letter are welcome. Deadline for sub-
mission for the next edition is fixed
to November 25th 2011. Please
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