**GA** Society for Medicinal Plant and Natural Product Research Gesellschaft für Arzneipflanzen- und Naturstoff-Forschung e.V.



### Message from the President



Dear members,

the next and 60th annual meeting of GA this year will be held as a joint meeting of 5 scientific societies in New York from July 28 - August 1. The "International Congress on Natural Products Research" (ICNPR) will be hosted by the American Society of Pharmacognosy (ASP) with Barbara Timmermann as president. The other involved European societies besides GA are the Association Francophone pour l'Enseignement et la Recherche en Pharmacognosie (AFERP), the Phytochemical Society of Europe (PSE) and the Società Italiana di Phitochimica (SIF). According to my last information (end of May) already more than 900 registrants have submitted over 1200 abstracts for oral or poster presentations and more than 40 invited speakers will present interesting and new facts concerning research on natural products, medicinal plants and phytotherapy. Most likely the abstracts of all presentations will be published in Planta Medica, the official organ of our Society. Direct exchange of information, personal contacts and networking become more and more important for all of us. Therefore a joint meeting like that in New York will be stimulating for each participant. In the course of the congress GA will also award the "Egon-Stahl-Award in Bronze" for a young scholar whose thesis is of outstanding quality, the "Dr. Willmar Schwabe-Award" acknowledging outstanding results of young scientists in the field of pharmacological and/or clinical research with medicinal plants and natural products and the Dr. Willmar Schwabe Research Scholarship for Young Scientists in order to support research of advanced PhD students or postdocs for projects focusing on pharmacological or clinical research of phytopharmaceuticals and their active substances. During the congress also our next members meeting will be organized on Monday, July 30 in the evening (see agenda in this NL). The venue of the congress is the Grand Hyatt New York located in the center of New York City in Manhattan thus offering also the possibility to discover some of the city's attractions. One social event highlight of the congress will take place in the New York Botanical Garden. Detailed information on ICNPR can be found on the website: www.icnpr2012.org. You can looking forward to

meeting participants at this congress from all parts of the world.

This year GA was already involved in three other successful and interesting congresses. These were the "11th Annual Oxford International Conference on the Science of Botanicals" (ICSB) in Oxford, Mississippi, USA with Ikhlas Khan as main responsible organiser and the "8th Brazilian Symposium of Pharmacognosy and 1st International Symposium of the Brazilian Society of Pharmacoghosy" from April 18-22 in Ilhéus-Bahia, Brazil. GA hopes to be able to intensify contacts to North- and South-America by active cooperation in such congresses. The third one was the congress "Phytotherapeutika 2012" organised as a joint meeting of 5 scientific societies, namely the Societies for Phytotherapy of Austria (ÖGPhyt), Switzerland (SMGP), Germany (GPT), our society (GA) and the European Scientific Cooperative on Phytotherapy (ESCOP). The meeting took place from May 17-19 at the University of Vienna, Austria, and was hosted by the ÖGPhyt which this vear can look back on 20 years of successful work. Congratulations! And there will be some other forthcoming congresses besides that in New York this year: the 5th International Symposium "Breeding Research on Medicinal and Aromatic Plants" (BREEDMAP 2012), June 18-20 in Vienna, Austria, the "16th International Congress PHYTO-PHARM 2012", July 9-11 in St-Petersburg, Russia, the "13th International Congress of the Society for Ethnopharmacology", Sep 2-6, in Graz, Austria, and the "2012 Shanghai International Conference for TCM and Natural Medicine", Oct 20-21, in Shanghai, China. Information on these congresses and further activities of GA can be found on our website: www.ga-online.org.

GA will establish a foundation named "Plants for Health". The aim of the foundation will be the initiation and start-up funding of innovative cooperation projects especially of outstanding young scientists or research groups. Donations to the foundation will promote research and scientific know ledge in the field of natural products, medicinal plants and phytotherapy.

These days I've got a lot of new membership application forms for signature. GA is happy about increasing membership figures and especially about the fact that the new members are coming from countries from all over the world: Azerbaijan, Bangladesh, Belgium, Bosnia-Herzegovina, Brazil, Canada, Finland, Germany, Greece, Italy, Madagascar, Malaysia, Mauritius, Nepal, Nigeria, Portugal, South Africa, Switzerland, Thailand, Ukraine and the United Kingdom. On behalf of GA I would like to welcome all of you to the GA family. I hope to see you, new and old members of GA, in New York during a fascinating congress or at any other event GA is involved in!

Cordially: Wolfgang Blaschek, GA President



## Foundation "Plants for Health"

A new foundation, initiated by the Society of Medicinal Plant and Natural Product Research (GA) for promotion of projects within all areas of medicinal plant research and natural product chemistry.

For supporting and for boosting scientific projects with international impact within the area of natural product chemistry and medicinal plant research GA is going to initiate the foundation **Plants for Health**. This foundation aims to support innovative projects, preferably with an interdisciplinary research and network strategy. Especially younger scientists with an excellent record can be supported.

Aims of the foundation **Plants for Health** are:

- Initiation of scientific cooperations and networking
- Initial funding of innovative and excellent projects
- Initial funding for excellent younger scientists and research groups.

Donators for this non-profit foundation make a contribution to scientific innovation and development within medicinal plant research, phytotherapy and natural products chemistry. This should be a clear and significant sign for the high value of medicinal plant research in front of the drastically reduced public funding in this area.

GA initially is placing a significant amount of money into this foundation. By adding generous donations by GA members and non-members it is aimed to start the support of high impact projects as soon as possible. The foundation will be associated very closely in future with GA.



Benefits for donators: tax-reduction, documentation of donations and donator on the GA website and presentation of the donator in a very visible way in various public organs.

For details please contact the GA website www.ga-online.org/plants-for-health or the GA president.

Plants for Health:

Donate to support science in the field of medicinal plant and natural product research.

### The Society informs

### Notes to all GA members



#### **Editorial remark**

All contributions for the GA-Newsletter are welcome.

Deadline for submission is fixed to November 25th 2012.

Please send all contributions by e-mail: Prof. Dr. A. Hensel University of Münster, Institute for Pharmaceutical Biology and Phytochemistry, Hittorfstrasse 56, D-48149 Münster, Germany ahensel@uni-muenster.de



#### **Deceased members**

(to our knowledge)

Prof. Dr. h. c. Franz-Christian Czygan Institute of Pharmaceutical Biology, University of Würzburg, Germany

Deceased at 16.01.2012

The Society will keep commemoration and offers its sincere condolence.



### Some Data from the Membership Data Base: New GA members

The society can announce 60 new members since June 2011. 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!

Amira Abdel Motaal, Egypt; Abayomi Ajayi, Uganda; Hanem Awad, Egypt; Elham Barari, Iran; Michael Blaschke, Austria; Angela Gono Bwalya, United Kingdom; Sanja Cavar, Bosnia and Herzegovina; Nanayakkarawasam Masachchige Chandrika Niranjala Nanayakkara, Italy; Hala El-Hefnawy, Egypt; Nicholas Everett, Canada; Rozbeh Farhoudi, Iran; Emerson Ferreira Queiroz, Switzerland; Martin Flemmig, Germany; Faezeh Gha-

nati, Iran; Shanaz Ghuman, South Africa; Ana Clara Grosso, Portugal; Mohamed Haddad, France; Eman Hamed, Egypt; Aline Horling, Germany; INDENA S.p.A, Italy; Emil Jivishov, Azerbaijan; Sevda Jivishova, Azerbaijan; Surya Kant Kalauni, Nepal; Daniela Karlsson, Finland; Michael Kemmler, Switzerland; Abdulrahman Koshak, Saudi Arabia; Girish Kumar Gupta, India; Babatunde Lawal, Nigeria; Sogolo Lebelo, South Africa; Virginie Levasseur, Canada; Milka Maksimovic, Bosnia and Herzegovina; Reda Mohammed, Egypt; Paolo Morazzoni, Italy; Dorcas O. Moronkola, Nigeria; Viknes waran Murugaiyah, Malaysia; Amandine Nachtergael, Belgium; Luu Tuan Ngoc, Vietnam; Oluwafunke Oribayo, Nigeria; Stefan Papajewski, Germany; Oresta

Pinyazhko, Ukraine; Satyendra Prasad, India; Panupong Puttarak, Thailand; Aro Vonjy Ramarosandratana, Madagascar; Antonella Riva, Italy; Chalinee Ronpirin, Thailand; Reham Sabry, Egypt; Angelo Filipe Santos Luis, Portugal; Rosmarie Scherübl, Germany; Juliana Severi, Brazil; Burhan Sevsevil, Turkey; Mehri Seyed Hashtroudi, Iran; Randhir Singh Dahiya, India; Malena Skogman, Finland; Relja Surucic, Bosnia and Herzegovina; Sadrine Tchoukouegno, Germany; Gerasimia Tsasi, Greece; Shaikh Jamal Uddin, Bangladesh; Danijela Vidic, Bosnia and Herzegovina; Sheila Wicks, United States of America; Aline Witaicenis Fantinati, Brazil

Dr. Birgit Benedek, GA Secretary

### Professor Dr. Gerhard Franz

#### Regensburg, 75 years

Professor Dr. Gerhard Franz, honorary member of GA celebrated his 75th birthday on March 26th 2012 and more than 50 of his former PhD students celebrated this event in front of historic cathedral at hot summer weather in Regensburg, Germany together with their "old boss". Prof. Franz has been president of GA from 1994 to 1997 and always active in pushing forward GA towards a modern society with international flair. Gerhard Franz held the chair of Pharmaceutical Biology at the University of Regensburg, Germany, since 1977, where he retired in 2004. His research was based on manyfold aspects of modern pharmacognosy, starting from biosynthetic questions over carbohydrate analysis to immunomodulary-, anti-inflammatory - and anti-coagulant polysaccharides. He became more and more interested in quality

aspects of herbal medicinal products. A major interest was and still is the development of modern quality monographs for the German and European Pharmacopoeia. In Strasbourg he still acts as member of the European Pharmacopoeia Commission and as chairman of the Expert Group 13B Phytochemistry. In 2006 he was awarded with the honorary membership of GA in recognition of his extraordinary contributions to medicinal plant research, his great impact on the development of modern herbal monographs for the pharmacopoeias and his long and intense engagement for the aims of our Society. His efforts to promote quality and application of herbal medicinal products have been acknowledged by the German Government and by high-impact awards of different scientific societies.



The GA congratulates him for his birthday and wishes him and his wife vigour and health for the next years.

A. Hensel

## Invitation to the Members Meeting 2012

During the 60th annual meeting of our society which will take place in New York, USA, from 28 July – 1 August 2012 as part of a joint meeting with other scientific societies, a regular Members' Meeting will be held. It is scheduled for Monday, 30 July 2012, 7.00 p.m. – 8.00 p.m. at the Grand Hyatt New York City, 109 East 42nd Street, New York, New York, USA 10017. This announcement in the Newsletter has to be considered as the official invitation to the Member's 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
- Approval of the minutes of the Members' Meeting held in Antalya, Turkey on 6 September 2011 (published in GA Newsletter 2-2011)
- 3. Annual reports of the President, Vice-Presidents, Secretary, Treasurer and

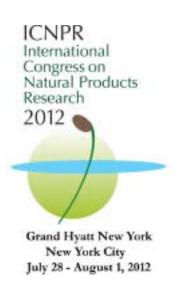
- the Auditors, and discharcharge of the Executive Council
- 4. Report of the Editor-inChief of Planta Medica
- 5. Reports of the Permanent Committees
- Future congresses, symposia and workshops
- 7. Miscellaneous

On behalf of the Executive Council Prof. Dr. Wolfgang Blaschek, GA President

### Meetings of GA

### **Next Annual Meeting**

Joint meeting ASP, GA, AFERP, PSE, SIF New York, July 28 - Aug.1 2012



Scientists from around the world will meet in New York City next summer for the 2012 International Congress on Natural Products Research (ICNPR).

The conference, "Global Change, Natural Products and Human Health," is the eighth joint meeting of the American Society of Pharmacognosy (ASP), the Society for Medicinal Plant and Natural Product Research (GA), the Pharmacognosy Society of French Speaking Persons (AFERP), the Phytochemical Society of Europe (PSE), and the Italian Society of Pharmacognosy (SIF). It will be at the Grand Hyatt Hotel in New York City, July 28 – Aug. 1, 2012.

The local organizing committee is developing the program that will include plenary lectures as well as parallel sessions by invited and contributing authors. Many of the parallel sessions will complement topics introduced by the plenary speakers. Among those topics will be:

- Biodiversity
- Ethnobotany R&D
- Pharmaceutical Case Study-Concept to Clinic
- Biosynthetic Medicinal Chemistry
- Genome Mining
- New Technologies
- Natural Product Pharmacokinetics and Metabolism
- Natural Product Discovery
- Natural Product Synthesis
- Pharmacology
- Chemistry Symbiosis
- Botanical Regulatory Issues
- Botanicals

The parallel sessions will also include opportunities for those in attendance to take the podium and present their research findings. Those wishing to present research posters may do so during sessions scheduled throughout the conference.

Attendees will have the opportunity to meet and hear presentations by the winners of the Matt Suffness, Tyler Price, and Farnsworth Research Achievement awards and to attend various workshops and discussions, including a panel discussion on the "Future of Pharmacognosy."



Special acknowledgements will include a celebration of the 75th anniversary of the "Journal of Natural Products" and a tribute to the late Norman R. Farnsworth. On Sunday evening, we will have a chance to socialize a bit at the New York Botanical Garden. The conference and ASP business meeting will come to a close on Wednesday, following the traditional banquet. Whatever your interest, you'll find no shortage of things to see and do in New York City. World class cuisine, art museums and galleries, live theater and unique shopping opportunities are just a few of

ing your free time. I look forward to seeing you at the 2012 ICNPR for what I know will be an exciting week of collaboration, inspiration, and discovery. For more information, visit the ICNPR website at www.icnpr2012.org.

the attractions that will keep you busy dur-

### **Further Meetings**



The 13<sup>th</sup> Congress of the International Society for Ethnopharmacology, which will be organized in collaboration with the Society for Medicinal Plant and Natural Product Research and Eurasia-Pacific Uninet. The congress will be hosted by University of Graz, Institute of Pharmaceutical Sciences, Graz/Austria from September 2<sup>nd</sup> to 6<sup>th</sup>. 2012.

#### MAIN SCIENTIFIC TOPICS

- Intercultural ethnopharmacology
- Ethnomedicine along the Silk Road
- Herbal medicines from traditional knowledge to global commodities
- Holistic approach and systems biology in medicinal plant research
- Traditional and modern herbal medicinal products in ageing related diseases
- Traditional and modern herbal medicinal products in infectious diseases

CONGRESS WEB SITE/REGISTRATION
Please register at the congress web site

Please register at the congress web site http://ise13.uni-graz.at/cms



The Society for Medicinal Plant and Natural Product Research (GA) invites all scientists from academia and industry dealing with natural products, medicinal plants and phytotherapy, to this conference. In addition to presentation and discussion of excellent research in the fields of phytochemistry, analytics, ethnopharmacology, pharmacology and clinical applications of natural products and herbal drug materials, it will be a major goal of this conference to provide a basis for intense networking between scientists of academia and industry from all over the world.

It is a pleasure to the organizers that the European Cooperation in Science and Technology within the COST 1006 framework will be integrated into the meeting by a presymposium "Challenges and Limitations in Metabolic Pathway Engineering of Secondary Natural Products" highlighting the latest insights in biotechnical production of natural products for medicinal applications. This scientific meeting will be held in the central university area, in front

of the historic castle of Münster which is located in the middle of the city's historic downtown area. Münster, located in the Northwestern part of Germany, is a picturesque city which played an important role in European history. The University of Münster with more than 40.000 students and an exciting research profile is one of the biggest and leading universities in Germany. In order to promote the impact of poster presentation, three poster sessions at central time frames within the congress will bring together scientists from different disciplines. Workshops will provide indepth insights into various aspects of medicinal plant research. Apart from the scientific presentations and discussions, a full social program will be offered, which will leave you with unforgettable memories of Münster and its very typical and beautiful surrounding countryside. One-day excursions to UNESCO World Heritage Site "Zeche Zollverein", the world's most beautiful coal mine and a unique botanical trip will generate exciting insight in cultural and

biological surroundings of the Münster region of Westphalia.

#### MAIN SCIENTIFIC TOPICS

- Natural products against neglected diseases
- In vivo phytopharmacology
- Skin-active natural products
- Glycobiology and carbohydrate-based active compounds
- Ethnopharmacology of African medicine
- Ethnopharmacology of Amazonian medicine
- Computational methods in natural products chemistry
- Hyphenated analytical techniques and target fishing
- Natural product chemistry
- Plant phenols: structures, analytics and activities
- Quality control methods for medicinal plants, extracts and isolated natural products

### News on regulatory affairs

#### Herbal Medicinal Products: New Regulatory Developments in Europe

#### Herbal Medicinal Products: New Regulatory Developments in Europe

Due to their specific character as complex mixtures of natural origin, herbal medicinal products deserve special attention with regard to the assessment of their quality, efficacy and safety. However, like all medicinal products, they have to prove 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, either having a "well-established medicinal use" with a marketing authorization based on clinical studies and/or bibliographic references, or a "traditional use" with a registration based on tradition and experience, reference can be made e.g. to the so-called Community herbal monographs elaborated by the Committee on Herbal Medicinal Products (HMPC). A brief overview of the current activities of

the HMPC as well as of the European Pharmacopoeia with regard to herbal medicinal products will be given in the following.

### The Committee on Herbal Medicinal Products

The Committee on Herbal Medicinal Products (HMPC) was founded in 2004 at the European Medicines Agency (EMA) according to the provisions of the European Directive 2004/24/EC. The Committee meets six times per year under the chairmanship of Dr. Werner Knöss, Germany, and Professor Ioanna Chinou, Greece, as vice-Chair who is also Chairperson of the Working Party on Community Monographs and Community List (MLWP), Dr. Marisa Delbò from Italy being vice-Chair of this subgroup. One of the tasks of the HMPC is the preparation of Community herbal monographs for both well-established and



traditional herbal medicinal preparations. Meanwhile more than 100 monographs have been elaborated. Furthermore, the HMPC has been working on numerous guidelines for the assessment of quality, efficacy and safety of herbal and traditional herbal medicinal products. The most



important ones, which might also be of particular interest from a scientific point of view, will be presented and discussed in the following. All documents can be found on the EMA website (www.ema.europa.eu) in the specific area of herbal medicinal products.

### New Community herbal monographs

After preparation and discussion in the MLWP, e.g. the following monographs were finally adopted by the HMPC and published on the EMA website during the past few months:

Achillea millefolium L., flos
Arctostaphylos uva-ursi (L.) Spreng., folium
Chamaemelum nobile (L.) All., flos
Cynara scolymus L., folium
Filipendula ulmaria (L.) Maxim., flos
Fumaria officinalis L., herba
Hedera helix L., folium
Oenothera biennis L.; Oenothera lamarckiana L., oleum
Plantago lanceolata L., folium
Rhodiola rosea L., rhizome et radix
Zingiber officinale Roscoe, rhizoma

In January 2012, the HMPC adopted a new version of the monograph on Arctostaphylos uva-ursi (L.) Spreng., folium and related documents upon recommendation from the MLWP from its September 2011 meeting. The MLWP had been asked to assess additional comments after the publication of this monograph. These comments stated that the result of the discussions were not satisfying because only at this stage the use of preparations from this herbal drug was restricted to women. However, at the end the text remained in principle unchanged, and it was explained in the assessment report that the use in men did not seem justified from the HMPC's point of view.



Other examples, however, show that comments submitted by interested parties were taken into consideration when the documents were finalized. E.g. in the final monograph on *Hedera helix*, a dosage recommendation for the use in younger chil-

dren was added in accordance with the comments submitted on the basis of data from clinical studies. In the case of Plantago, further preparations were included which were able to prove their 30-years tradition, and for these preparations a dosage recommendation for younger children corresponding to the existing product information was included.

In the monograph on *Tanacetum parthenium* (L.) Schulz Bip., herba, the indication "traditional herbal medicinal product for the prophylaxis of migraine headaches after serious conditions have been excluded by a medical doctor" was accepted. It replaces the proposed indication of the former draft "traditional herbal medicinal product used to reduce the frequency and severity of recurrent headaches" and thus takes into consideration registrations already granted in Member States and published scientific data on the efficacy of the preparations.



Detailed background information on all finalized monographs is available in the published accompanying documents, i.e. 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 early stage, thus providing more clarification on the proposals made in the draft monographs and facilitating the preparation of comments by interested parties. With regard to published monographs and list entries, their users i.e. companies applying for marketing authorization or registration, should be aware of the fact that unlike list entries, monographs are not binding and further data e.g. on genotoxicity can be requested by the competent authority.

Furthermore, new drafts on *Cucurbita* pepo L., semen, and *Urtica* dioica L., *Urtica* urens L., their hybrids or their mixtures, radix, were adopted by the HMPC and released for public consultation at the beginning of the year 2012. This was ap-



parently the result of a long discussion about a suitable indication wording for herbal drugs used for the symptomatic treatment of benign prostatic hyperplasia (BPH) following a (negative) draft public statement on Urtica in 2009 and a clarification on the interpretation of Directive 2001/83/EC from the European Commission as regards indications appropriate for traditional herbal medicinal products. According to the mentioned new draft monographs, a traditional use for treating BPH symptoms - similar to Tanacetum parthenium for migraine prophylaxis - is in principle possible once an initial consultation of a doctor has taken place.

The draft public statement on *Viscum album* L., herba, stated that currently available data do not allow to develop a monograph for these herbal substances/preparations, neither for a well-established medicinal use due to the lack of data, nor for a traditional use due to the claimed indications which did not seem suitable for self-medication.

Overviews of the current 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

In November 2011 the HMPC adopted the 1st revision of the Questions & Answers on quality of herbal medicinal products/traditional herbal medicinal products which includes clarification on the quality of water



and an additional question on stability. Currently e.g. guidance on acceptance criteria for non pharmacopoeial reference standards for herbal substances and herbal preparations, on microbiological aspects and on the biopharmaceutical characterization of herbal medicinal products are discussed. Furthermore, based on the discussion of the 2012 work programme several topics were identified which require close cooperation between HMPC and EDQM such as the essential coordination for the revision of the Ph. Eur. monograph on extracts.

#### Safety issues



The public statement *Chelidonium majus* L., herba, comes to a negative conclusion with regard to the benefit/risk ratio and explained in the accompanying documents that the risk is dose-dependent. In the final

public statement on the use of herbal medicinal products containing thujone the daily dose of thujone was restricted to 6 mg based on a detailed toxicological assessment. As a consequence, the existing monographs on sage leaf and wormwood (daily dose of 5 mg and 3 mg thujone, respectively) will probably be subject to rediscussion in the HMPC.

#### The European Pharmacopoeia

On 1 January 2012 the 5<sup>th</sup> Supplement to the 7<sup>th</sup> edition of the European Pharmacopoeia (Ph.Eur. 7.5) was published which includes the general chapters and monographs adopted in the 140<sup>th</sup> session of the Ph.Eur. Commission (June 2011). The implementation date is 1 July 2012. Publication of the 6<sup>th</sup> Supplement (Ph.Eur. 7.5) with the results of the 141<sup>st</sup> session is scheduled for 1 June 2012 with the implementation date 1 January 2013.

In 2011 a number of revised draft monographs was discussed, e.g. Agnus castus (modified HPLC method for herbal drug and extract), Uvae-ursi folium (modified HPTLC method), Ribis nigri folium (replacement of UV by LC method), Fagopyri herba (rutin content) and Foeniculi amari fructus (water content), the latter two revisions being in accordance with current batch data. More recently, revised versions for the chapter on microbiologocal quality of herbal medicinal products (method 2.6.31 and acceptance criteria 5.1.8) and the revised chapter on the determination of heavy metals in herbal drugs and fatty oils have been published for public consultation as well as the

monograph on Senega root together with the determination method for the foam index. Several individual monographs have been amended by illustrations which are intended to facilitate microscopic identification. 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, and apart from a number of individual monographs, a new general chapter on processed drugs for TCM has been proposed. In the respective Ph.Eur. expert groups further revisions such as for caffeine- or anthraquinone-containing herbal drugs are under discussion as well as a complete revision of the general monographs on extracts.

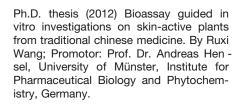
Starting in January 2012, European Pharmacopoeia draft monographs are now published online in the Journal Pharmeuropa which appears four times a year. The drafts are freely accessible once the users have been registered through the website of the European Directorate for the Quality of Medicines and Healthcare (EDQM) under www.edqm.eu. Comments submitted e.g. by scientific organizations or individuals should be addressed to the national health authorities or the EDQM, Strasbourg, within three months after publication.

#### Address:

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

# Recent thesis (2011/2012) on Medicinal Plant Research

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



Ph.D. thesis (2012) Selective chromatographic quantification of oligomeric and polymeric procyanidins from plant matrices (in German). By Nils Hellenbrand; Promotor: Prof. Dr. Andreas Hensel, University of Münster, Institute for Pharmaceutical Biology and Phytochemistry, Germany.

PhD thesis (2012) Untersuchungen zur Beteiligung des glutamatergen Rezeptorsystems an der Wirkung von Safran (Crocus sativus L.) und seinem Inhaltsstoff trans-Crocetin. By Frauke Berger; Promotor: Prof. Dr. K. Nieber, Institute of Pharmacy, University of Leipzig, Germany.

Ph.D. thesis (2012) Die Phosphorylierung von Signalproteinen bei der Elicitierung der Alkaloidbiosynthese in *Eschscholzia californica*. By: Marcus Buchheim, Promotor: Prof. Dr. Werner Roos, Institut für Pharmazeutische Biologie, Abt. Molekulare Zellbiologie, Martin-Luther-Universität Halle-Wittenberg, Germany.

PhD thesis (2012) An ethnopharmacological study of Australian indigenous plants used in dermatological and wound healing remedies. By: Joshua Smith. Principal supervisor Associate Professor Graham Lloyd Jones, cosupervisor E/Prof K Watson.

PhD thesis (2012) Development and characterization of topical formulation contain-



ing *Trichilia catigua* standardized extract for cosmetic care. By Audrey Alesandra Stinghen Garcia Lonni; Promotor: Prof. J.C.P. Mello, Department of Pharmacy, Universidade Estadual de Maringá, Brazil.

PhD thesis (2012) Development of analytical and technological methodology to obtention of tablets of *Paullinia cupana* var. sorbilis (Mart.) Ducke, Sapindaceae. By Traudi Klein; Promotor: Prof. J.C.P. Mello, Department of Pharmacy, Universidade Estadual de Maringá, Brazil.

PhD thesis (2012) Studies on antispasmodic and bronchodilator activities of selected indigenous medicinal plants. By: Munasib Khan; Promoter: Prof. Anwar H Gilani, Dept. of Biological and Biomedical Sciences, The Aga Khan University, Karachi, Pakistan.



PhD thesis (2012) Pharmacological basis for the medicinal use of *Morinda citrifolia* (noni) in cardiovasculr disorders. By: Safur-Rehman; Promoter: Prof. Anwar H Gilani, Dept. of Biological and Biomedical Sciences, The Aga Khan University, Karachi, Pakistan.

PhD thesis (2012) Pharmacological evaluation of selected indigenous medicinal plants for their antiurolithic and diuretic activities. By Aslam Khan; Promoter: Prof. Anwar H Gilani, Dept. of Biological and Biomedical Sciences, The Aga Khan University, Karachi, Pakistan.

PhD thesis (2012) Phytochemical profiling and evaluation of the pharmacological effects of the Chinese herbal decoction Huang Lian Jie Du Tang. By: Ute Widowitz; Promotor: Prof. R. Bauer, Institute of Pharmaceutical Sciences, University of Graz, Austria.

PhD thesis (2012) Untersuchungen zum Zelltod in Pankreastumorzellen und den wundheilungsfördernden Eigenschaften von Birkenkorkextrakten. By: Katrin Naumann; Promotor: Prof. I. Merfort, University of Freiburg, Germany.

PhD thesis (2012) Untersuchungen zu Wirkungen, Wirkmechanismen und Chemie ausgewählter zytotoxischer Naturstoffe. By Stefanie Schneider; Promotor: Prof. U. Lindequist, Institute of Pharmacy, University of Greifswald, Germany.

PhD thesis (2012) Biochemische, mikrobiologische und phytochemische Aspekte bei der Herstellung wässrig-fermentierter Urtinkturen am Beispiel von Atropa belladonna. By: Martina Schwarzenberger; Promotor: Prof. U. Lindequist, Institute of Pharmacy, University of Greifswald, Germany.

Ph.D. thesis (2012) Bioassay-guided fractionation of *Peucedanum ostruthium* (L.) W.D.J. Koch and *Melampyrum pratense* L. focusing on anti-inflammatory activities. By: Dr. Sylvia Vogl; Promoter: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

PhD thesis (2011) Pharmacological basis for the medicinal use of Psyllium husk and related plants in constipation and diarrhea. By: Malik Hassan Mehmood; Promoter: Prof. Anwar H Gilani, Dept. of Biological and Biomedical Sciences, The Aga Khan University, Karachi, Pakistan.

PhD thesis (2011) Phytochemical study and evaluation of cytotoxic, antioxidant and adaptogen activity of the wood of *Croton echioides* Baill., Euphorbiaceae. By Cláudio Roberto Novello; Promotor: Prof. M.H. Sarragiotto, Department of Chemistry, in collaboration with Prof. J.C.P. Mello, Department of Pharmacy, Universidade Estadual de Maringá, Brazil.

Ph.D. thesis (2011) Bioaktive Sekundär-stoffe aus endophytischen Pilzen – Iso-

lierung, Strukturaufklärung und Charakterisierung der biologischen Aktivität. By Clecia Maria Freitas Richard; Promoter: Prof. Dr. Peter Proksch, Heinrich-Heine Universität Düsseldorf, Germany and Dr. Rainer Ebel, University of Aberdeen, Scotland UK.

Ph.D. thesis (2011) Isolation and Structural Elucidation of Bioactive Secondary Metabolites from Marine Organisms. By Sherif Elsayed; Promoter: Prof. Dr. Peter Proksch and PD Dr. Wim Wätjen, Heinrich-Heine Universität Düsseldorf, Germany.

Ph.D. thesis (2010) Standardization, biological activities determination and development of anti-acne preparation of *Garcinia mangostana* fruit rind extract. By: Werayut Pothitirat; Promotor: Assoc. Prof. Dr. W. Gritsanapan, Assoc. Prof. Dr. P. Pithayanukul, Assist. Prof. M. Chomnawang, Assist. Prof. Dr. R. Supabphol, Department of Pharmacognosy, Faculty of Pharmacy, Mahidol University, Thailand.

PhD thesis (2011) Phytochemical and biological studies of Parapiptadenia rigida. By A. Cleber; Promotor: Prof. I. Merfort, University of Freiburg, Germany.

PhD thesis (2011) Phytochemical investigation of the roots of Peltodon longipes and in vitro cytotoxic studies of abietane diterpenes. By Marcio Fronza; Promotor: Prof. I. Merfort, University of Freiburg, Germany.

Ph.D. thesis (2011) Pharmacognostical studies on some Inula L. species growing in Turkey. By: Alper Gökbulut; Promotor: Prof. Dr. Engin •arer, Ankara University Faculty of Pharmacy, 06100 Ankara-Turkey.

Diploma thesis (2012) In depth study of lateral gene transfers in Leishmania using a phylogenetic and bioinformatic approach by Sabrina Stadlhofer; Promotor: Prof. R. Bauer, Institute of Pharmaceutical Sciences, University of Graz, Austria, in collaboration with Prof. Lars Bohlin, Division of Pharmacognosy, University of Uppsala, Sweden.

Diploma thesis (2012) Phytochemische Untersuchungen der Sekundärstoffe in Wurzeln von Metaxya rostrata. By: Natalie Schmidt; Promotor: ao. Prof. L. Krenn, University of Vienna, Austria.

Diploma thesis (2012) Development of a LC-MS Screening Procedure for the Application in Analytical Toxicology. By: Barbara Hinterberger; Promotor: ao. Prof. L. Krenn, University of Vienna, and ao. Prof. R. Schmid, Medical University of Vienna, Austria.

Diploma thesis (2012) Isolierung von Inhaltsstoffen mittlerer Polarität aus Metaxya rostrata. By: Johann Bleier; Promotor: ao. Prof. L. Krenn, University of Vienna, Austria.

Master of Science (Pharmaceutical Sciences) (2012) Development of analytical methodology of total polyphenols of extracts from the stem bark of *Schinus terebinthifolius* Raddi. By Maria Cristina DiCiaula; Promotor: Prof. J.C.P. Mello, Department of Pharmacy, Universidade Estadual de Maringá, Brazil.

Diploma thesis (2012) Vergleichende Untersuchungen der Monosaccharide und Zuckeralkohole in Mistelpflanzen (Viscum album L.) verschiedener Wirtsbäume. By Mira Kohl; Promotor: Prof. U. Lindequist, Institute of Pharmacy, University of Greifswald, Germany.

Diploma thesis (2012) – Untersuchungen zur Kooperativität von Inhaltsstoffen des Phytopharmakons STW5 auf die TNBS-induzierte Entzündung an Colonpräparaten der Ratte. By Nadine Störmer; Promotor: Prof. Dr. K. Nieber, Institute of Pharmacy, University of Leipzig, Germany.

Diploma thesis (2012) Untersuchungen zur Kooperativität von Inhaltsstoffen des Phytopharmakons STW5 auf den Tonus und die ACh-induzierten Kontraktionen an Dünndarmpräparaten der Ratte. By Anja Baumgärtel; Promotor: Prof. Dr. K. Nieber, Institute of Pharmacy, University of Leipzig, Germany.

Diploma thesis (2012) Untersuchungen zum Synergismus von Extrakten des Phytopharmakons STW5 im Zell-kulturmodell. By Victoria Winkelmann; Promotor: Prof. Dr. K. Nieber, Institute of Pharmacy, University of Leipzig, Germany.

Diploma thesis (2012) Effects of Passiflora Extracts on sleep, measured by locomotor activity and body temperature in mice using telemetry. Promators: Prof. Dr. v. Butterweck, college of Pharmacy, University of Florida, USA and Prof. Dr. K. Nieber, Institute of Pharmacy, University of Leipzig, Germany.

Diploma thesis (2012) Untersuchungen zur Bildung und Reifung von somatischen Embryos bei *Glycyrrhiza glabra* L.. By: Doris Hartl; Promoter: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2012) *In vitro* Kultivierung von *Leontopodium alpinum* Cass.. By: Paolo Kristina Ondratschek; Promoter: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2012) Quality control of medicinal plants by thin layer chromatography. By: Steven Böhm; Promoter: Prof. B. Kopp and Prof. S. Canigueral, Department of Pharmacognosy, University of Vienna, Austria, University of Barcelona.

Diploma thesis (2011) Natural products and insulin signaling: aspects of the metabolic syndrome; testing in in vitro and cell-based assays; by: San-Po Pan; Prof. Verena M. Dirsch, University of Vienna, Austria.



Diploma thesis (2011) Discovery of novel anti-inflammatory compounds targeting NF-kappaB; by: Anna Maria Grzywacz; Prof. Verena M. Dirsch, University of Vienna, Austria.

Diploma thesis (2011) Influence of medicinal plants on vascular smooth muscle cell proliferation; by: Thomas Nakel; Prof. Verena M. Dirsch, University of Vienna.

Master thesis (2011) Isolierung phenolischer Inhaltsstoffe aus *Myricaria Iongifolia* Ehrenb. By: Sandra Dunkler; Promotor: Prof. S. Glasl-Tazreiter, Department of Pharmacognosy, University of Vienna, Austria.

Master of Science (Pharmaceutical Sciences) (2011) Development of analytical methodology by Capillar Eletrophoresis to separation and identification of caffeine and flavan-3-ol in Paullinia cupana var. sorbilis (Mart.) Ducke extract, Sapindaceae. By Lia Akina Ito; Promotor: Prof. J.C.P. Mello, Department of Pharmacy, Universidade Estadual de Maringá, Brazil.

Master of Science (Pharmaceutical Sciences) (2011) Stryphnodendron adstringens: phytochemical and biological analysis. By Sandra Cristina Girotto Pinto; Promotor: Prof. J.C.P. Mello, Department of Pharmacy, Universidade Estadual de Maringá, Brazil.

#### **Editorial remark**

All contributions for the GA-Newsletter are welcome. Deadline for submission for the next edition is fixed to November 20th 2012. Please send all contributions to: **Prof. Dr. A. Hensel,** University of Münster, Institute for Pharmaceutical Biology and Phytochemistry, Hittorfstraße 56, D-48149 Münster, Germany; ahensel@uni-muenster.de

