



NEWSLETTER

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No. 2

Gesellschaft für Arzneipflanzenforschung · Society for Medicinal Plant Research

<http://www.ga-online.org>

Message from the President

Dear members,
the 52nd annual congress of GA has been held as a joint meeting with the American Society of Pharmacognosy (ASP), the Association Francaise pour l'Enseignement et la Recherche en Pharmacognosie (AFERP) and the Phytochemical Society of Europe (PSE) in Phoenix/Scottsdale, Arizona, from July 31 to August 4, 2004. It has been organized by the American Society of Pharmacognosy, in particular by Prof. David Slatkin and Prof. Pedro Chavez. I want to thank them and their supporting crew very much for their enthusiasm and for organizing the joint meeting so successfully.

More than 600 scientists from 49 countries attended the congress, among them 92 members of GA. We have supported six PhD students with travel grants so that they could attend the congress. GA has also organized and financially supported the Herbal Symposium on Monday, August 2, which has been dedicated to our late honorary member Prof. Tyler, and which covered several interesting aspects of research in herbal medicinal products from a European perspective.

You can find a comprehensive report on the Joint Meeting in this Newsletter by Renate Seitz.

The next and 53rd annual congress of GA will be held from August 21st–25th, 2005 in Florence, Italy, and will be organized by Prof. Vincieri. The Italian Society of Phytochemistry will also participate in this congress. Detailed information is available from our homepage and from the second circular. I hope to see again many of you, old and new members, at this certainly very attractive event. The Methodological Workshops of GA on Visual Methods in Crude Drug Identification and on HPLC-MS, which were scheduled for September and October 2004 had to be cancelled because of a too low number of participants. I am very sorry about that and want to thank Prof. Länger and Prof. Reznicek, who have been willing to organize and who had prepared the workshops. We will discuss in the BoD the reasons of this lacking interest.

On October 1st, 2004, Prof. Dr. h. c. Adolf Nahrstedt retired as Editor-in-Chief of *Planta Medica*, and Prof. Hamburger took over this task. GA owes a big debt of gratitude to Prof. Nahrstedt, who has dramatically increased the scientific reputation of *Planta Medica* (and of GA) during his 12 years of editorship. In his period he handled more than 7000 manuscripts and the Impact Factor raised from 0.949 to 2.289. During a farewell symposium held on Oct. 16th 2004 in Münster, I thanked Prof. Nahrstedt on behalf of GA and wished him the very best for his retirement. I also want to express my best wishes to his successor, Prof. Hamburger, Basel, who is now in charge as Editor-in-Chief. Starting October 1st, 2004, Thieme Verlag has also established the on-line submission system for *Planta Medica*. I hope that many of you will be using this and will be submitting your valuable papers to *Planta Medica*. Finally I want to wish you all a healthy, lucky and successful year 2005 and I am looking forward to meeting you in Florence.

GA President

Call for help / general information for members

In order to save time and money, as well as to get relevant information faster and more effectively delivered to all GA members, we would like to intensify communication by e-mail. For that purpose it is essential to complete our e-mail database. We call all members to notify our secretary by a short message on their actual **e-mail address**.

Thank you very much in advance! Please send mailings to the **GA Secretary**:

Dr. Renate Seitz,
Emmeringer Strasse 11
D-82775 Emmering, Germany
Fax: +49 8141 613749
e-mail: ga-secretary@ga-online.org

The GA-homepage (www.ga-online.org) contains a special members area for which a special password is needed. For those who lost it: username "gamember", password "morphine".

Egon-Stahl-Award in Gold (Second Call)

The Egon Stahl-Award in Gold is the highest scientific honour of the Society for Medicinal Plant Research (GA). It is a donation from Bionorica GmbH. It can be awarded every third year. So, the next Egon Stahl-Award in Gold will be awarded 2005 during the annual GA congress in Florence. The Egon Stahl-Award in Gold acknowledges the outstanding scientific lifetime work of a research scientist who has been closely attached to Pharmaceutical Biology (Pharmacognosy, Chemistry of Natural Products), in its whole range, through his/her scientific work.

Nominations can be made by all regular members of the Society for Medicinal Plant Research. Nominations of oneself can not be considered. Nominations must be submitted to the President of the Society for Medicinal Plant Research by **March 1st, 2005**. The following must be enclosed with the nomination:

- a detailed acknowledgment of the scientific works
- names of further experts who could be consulted.

R. Bauer

Egon-Stahl-Award in Bronze / Silver

On the occasion of his 60th birthday, Professor Dr. h. c. mult. Egon Stahl donated a medal, a document and a monetary prize in order to recognize and promote young scientists working in the field of Pharmacognosy (Pharmaceutical Biology) and Analytical Phytochemistry.

As a rule, the silver medal and an award of € 3.000 shall be awarded to scientists up to the age of about forty who have published outstanding scientific work during the years after their graduation. The bronze medal and an award of € 2.000 will be given to young scholars up to the age of about thirty whose thesis was of outstanding quality. The prize 2005 will be awarded during the 53rd annual congress of GA in Florence, Italy.

Members of the Society for Medicinal Plant Research are invited to submit nominations for candidates, together with supporting data, to the President of GA, Prof. Dr. R. Bauer, Graz.

A nomination for the prize has to include a curriculum vitae incor-

porating the most important data on the candidate's scientific career, an index on his/her publications, and reprints of several of his/her more recent publications. All publications can be taken into consideration, including already published papers of the last six years.

All documents have to be submitted **in triplicate**.

Deadline for submissions is **March 15th, 2005**.

R. Bauer

Minutes of the GA Members' Meeting 2004

The annual members' meeting was held on 4 Aug. 2004 in Phoenix-Scottsdale, AZ, USA; 40 members (of 92 participating the GA congress) attended the meeting. The president, Prof. Bauer, welcomed the participants of the members meeting, in particular the honorary member, Prof. Sticher.

1. Approval of the agenda

The agenda was unanimously approved

2. Approval of the minutes of the Members' Meeting held in Kiel on 1 Sept. 2003

The minutes of the Members' Meeting in Kiel 2003 were published in the GA-NL 2/Dec 2003. They were accepted from the assembly unanimously with no remarks.

3. Annual reports

Report of the President Prof. R. Bauer

- The reelected ExC met twice, on 13 Febr. and 9 July 2004 in Schaerding, Austria.
- The newly elected BoD with 2 new members (Profs. Canigual, Barcelona and M. Hamburger, Basel) became active on 1 Jan 04 and met on 5 March 04 in Düsseldorf and on 1 Aug 2004 in Phoenix, USA. Prof. Bauer thanked the 2 members who had left the BoD, Dr. B. Frank and Prof. R. Hiltunen, for their long lasting service.
- He thanked Prof. Alban and Prof. Blaschek for organizing the annual meeting 2003 in Kiel.
- After the Kiel congress, the so-called "Kiel resolution" was sent to all members of the house of parliament in Germany (Bundestagsabgeordnete), as well as to the press distributor and was put on the GA homepage (<http://ga-online.org/Kiel2003/Resolution.pdf>). It was published in several media, but no response from the politicians' side.
- The Kava Statement of GA has been published in *Planta Medica* 69:971-972 (2003)
- The GA archive was finally settled by R. Seitz at the German Pharmacy Museum in Heidelberg (Dir. Ms. Huwer); it was arranged with the help of Prof. Friedrich, Marburg.
- GA (represented by Dr. Roether) attended the annual hearing of the Working Party on Herbal Medicinal Products (WPHMP) of EMEA on 3 Nov 2003 in London. GA had prepared a statement which was presented by Dr. Roether.
- Prof. Bauer represented GA at the TCM-Workshop on 7. Nov. 2003 in Vienna.
- Prof. Bauer represented GA at the 3. Mistletoe-Symposium 2003, 20-22 Nov in Nonnweiler, Germany, organized by Dr. Scheer; 6 societies were involved (GA, GPhyt, DPhG, Carstens Foundation, ZÄN, Ass. of Anthroposophic Medicine); report in DAZ and in NL 2003-2 together with the "Nonnweiler Declaration"; proceedings will be published as a book.
- Prof. Bauer represented GA at the joint congress *Phytopharmaka und Phytotherapie* on 26-28 Feb 2004 in Berlin, a joint meeting with Gesellschaft für Phytotherapie and the Deutsche Gesellschaft für Klinische Pharmakologie und Therapie, organized by Prof. Reuter, Prof. Roots and Prof. Schulz. He gave a welcome address on behalf of GA and contributed to the "Berliner Resolution zum Erhalt pflanzlicher Naturheilmittel in Deutschland" (Resolution on the preservation of herbal medicinal products in Germany).

- According to a proposal by Prof. Alban, Kiel, as representative of the GA and DPhG, Prof. Keller, Bonn, offered a workshop organized by the BfArM with the topic "Regulatorische Anforderungen in Zulassungsverfahren für pflanzliche Arzneimittel" ("Regulatory Requirements in the Approval of HMPs") for university staff on 29./30.3.04
- On 16 April 04 GA prepared a statement on the BfArM paper "herb drug interactions" with comments on how this issue shall be regulated (authored by Schulz, Nahrstedt, Winterhoff, Abel, Alban, Bauer, Frank).
- Prof. Bauer participated at a press conference with Ges. Phytotherapie und Kooperation Phytopharmaka on 7 May 2004 in Berlin: Impact of exclusion of herbal medicinal products from reimbursement in Germany on research activities (Report in *Dtsch. Apoth. Ztg.* (2004) 144:2507)
- GA organized a joint symposium on Chinese herbs together with Kew Gardens, the Academy of Pharmaceutical Sciences of Great Britain (APSGB) and the International Society for Ethnopharmacology on 11/12 June 2004 at London/Kew Gardens. Prof. Bauer participated and gave a lecture. (Report in *Pharmac. Journal* 273: 125, 2004 and www.pjonline.com)
- Prof. Bauer gave a welcome address at the LAT 25 Years Anniversary Symposium "Visions and perspectives in pharmaceutical sciences" on 17/18 June 2004 in Starnberg/Germany
- GA provided travel grants for the joint meeting in Phoenix; many applications, few were qualified (new regulations for travel grants will be discussed).
- NL 2003-2 has been published in Jan. 2004 and NL 2004-1 in July 2004, the latter was sent out by e-mail and by mail.
- BoD has decided that the NL should no longer be distributed in *Planta Medica*, but only via mailing, e-mailing (preferred) and Internet (closed section).
- Prof. Bauer commemorated the deceased members of the last year, among them Prof. Dr. Martin Luckner, who died in Halle on 20 May, 2004 (obituary in NL 1/2004) and Prof. Dr. Robert Wasicky from Universidade de São Paulo, Faculdade de Ciências Farmacêuticas, Brasil, on 19 Dec 2003 (GA member since 1981).
- Honorary Doctorate for Mrs. Univ.-Prof. Mag. pharm. Dr. Brigitte Kopp on 27 Oct 2003 from the University of Medicine and Pharmacy "Gr. T. Popa" in Iasi, Romania, and for Prof. Dr. A. Nahrstedt in May 2004 by the Ovidius-University of Constanta, Romania. GA congratulates them very much!

Reports of the Vice-Presidents

Prof. Kopp (apologized)

- completed the rules for travel grants; application forms can now be found in the internet;
- organized the GA methodological workshops (s.b.) and represented GA at various occasions (TCM podium discussion in Vienna on 7 Nov. 03, the GPhyt conference in Berlin on 26-29 Febr. 04, at the BfArM-workshop in Bonn on 29./30.3.04 and on the TCM joint symposium in London)

Prof. W. Kreis

- was the delegate of GA at the founding meeting of the Bund biowissenschaftlicher Wissenschaften (BbwW) (1 Oct 03 and 9 March 04 in Kassel)
- was also GA delegate and elected chair at the new German working group Pharmaceutical Biotechnology (AphB) with the aim of introducing a new concept of combining these fields to represent it better politically; most activities stopped because of too different opinions;
- participated at the BfArM-workshop in Bonn on 29./30.3.04,
- designed drafts for a Corporate Identity (CI) logo of GA

Report of the Secretary Dr. R. Seitz

Members' statistics (1 July 04) for 2004 (2003)

Total Members: 1081 (1061)

Honorary Members: **12** (12)

New Members: **75** (123)

Cancellations: **24** (43)
 Deceased members: **3** (2)
 Exclusions: **31** (57)
 Companies: **36** (37)
 Members from countries with reduced fees: **149** (117)
 Members with unknown address: **15** (23)
 Members with e-mail addresses: **777** (about 3 % not correct)

Report of the Treasurer Dr. Gudrun Abel (apologized)

For the treasurer Prof. Kreis presented the budget 2003 and the budget draft 2004. The main aspects of the cash report 2003 were support of young members by travel grants and the organisation of the joint congress resp. the "Herb Symposium" in Phoenix, USA. Revenues and expenses are almost equal, higher membership fees should be considered.

The budget was accepted unanimously.

Report of the auditors Profs. Harnischfeger and Schilcher

Prof. Kreis also read the report of the cash auditors; they had given positive statements and thanked the treasurer and her helpers for having done everything perfectly and transparently. They suggested to discharge the ExC, what was unanimously accepted by the audience. Prof. Harnischfeger retired as auditor, Prof. Schilcher will continue, Prof. E. Stahl-Biskup agreed as new auditor.

4. Report of the Editor-in-Chief of *Planta Medica* Prof. Nahrstedt

In 2003 270 manuscripts (printed on 1174 pages) were accepted (7 reviews, 4 rapid communications, 137 full papers, 122 letters) with Korea, China and Taiwan as the leading submitters of manuscripts; recently the IF decreased slightly, but PM is still within the leading journals, 5700 citations in 2003.

The switch in the editorial board to the new editor-in-chief, Prof. M. Hamburger, Basel, will take place on 1 Oct, 2004, the advisory board was enlarged from 25 to 42 members.

Prof. Bauer sincerely thanked Prof. Nahrstedt: He had increased the reputation of PM and GA, in his period the IF raised from 0,949 to 2,289, he handled 7000 manuscripts in 12 years of editorship.

Bauer expressed his best wishes for Prof. Hamburger.

5. Reports of the Permanent Committees (no workshops in Phoenix)

- Biological and Pharmacological Activity of Natural Products (Prof. Winterhoff): absent, no report
- Breeding and Cultivation of Medicinal Plants (Prof. Ch. Franz) absent, no report
- Manufacturing and Quality Control of HMPs (Prof. Meier) absent, no report
- Regulatory Affairs on HMPs (Report Prof. Vlietinck)

He attended 4 WPHMP meetings of EMEA in London. From Sept. on the new HMPC (Herbal Medicinal Product's Committee) of EMEA will evaluate the dossiers for mutual recognition of herbal products for traditional use. He attended two meetings in London and one in Prague, dealing with safety issues of food supplements, momentary the most important topic.

6. Future congresses, symposia and workshops

Prof. Bauer thanked the organizers of the joint meeting, Profs. Chavez and Slatkin; the next joint meeting is not yet fixed (2008 or 2010).

Annual congresses (announced in the GA web pages: www.ga-online.org):

2005 Florence, Italy, 21–25 Aug: 53rd annual congress, organized by Prof. F. Vincieri and Dr. A.R. Bilia.

In 2005 the Egon Stahl Award in Gold will be given (nominations requested till 15 March 2005)

2006 Helsinki, Finland, 3–8 Sept: 54th annual congress, organized by Prof. R. Hiltunen

Workshops and symposia (all announced in the GA web pages: www.ga-online.org):

2004: Sept/Oct, Vienna: Methodological Workshops

- LC-MS by Prof. Reznicek, Thu/Fri 30.9./1.10.2004
- Microscopy by Prof. Laenger Thu/Fri 23./24.9.2004

7 Oct: LOF-Symposium, Utrecht (Prof. Beukelman) "Biogenic drugs and central nervous system"

2005: 6–8 Oct Berlin: joint symposium of GA, Society for Phytotherapy (GPhyt) and German Society for clinical pharmacology (Deutsche Gesellschaft für Klinische Pharmakologie – GKPharm) (in German)

2006: Metabolomics Workshop (Prof. Kreis)

7. Discussion of the GA questionnaire

The outcome of the questionnaire has been published in the GA homepage (www.ga-online.org). The assembly had no more comments.

8. Miscellaneous: None

Nov. 2004

Dr. R. Seitz, GA Secretary, and Prof. Dr. R. Bauer, GA President

Egon Stahl-Award 2004 with a bronze medal for Dr. Deters, University of Erlangen, Germany

On the occasion of his 60th birthday, our honorary member, late Professor Dr. Dr. h.c. mult. Egon Stahl donated a medal, a document and a monetary prize in order to recognize and promote young scientists working in the field of Pharmacognosy, Pharmaceutical Biology, and Analytical Phytochemistry. The Egon Stahl-Award with a bronze medal should be awarded to young scholars up to the age of about thirty, whose theses are of outstanding quality.

After a careful evaluation by the panel of judges it was decided that the Egon Stahl Award 2004 with a bronze medal should be given to Dr. *Alexandra Marina Deters*, University of Erlangen, Germany. The awarding ceremony took place during the banquet of the 52nd Annual Meeting of our Society held in Phoenix, Arizona, as a joint meeting with ASP, PSE and AFERP on August 4th 2004. During the congress Dr. Deters had given a lecture entitled "Oligo- and Polysaccharides: Isolation, Characterization and Influence on Human Keratinocytes *in vitro*".

Dr. Deters was born in Haselünne, Germany, in 1975. She studied biology at the University of Kassel from 1994–1996, and the Friedrich-Alexander-University of Erlangen-Nürnberg from 1996–1998. Her major subject during her studies was on Pharmaceutical Biology, where she decided to do her diploma thesis under the supervision of Dr. Hensel, who was at that time working at the chair of Pharmaceutical Biology. She performed analytical and phytochemical studies on procyanidins and polysaccharides and established a keratinocytes *in vitro* test system. The diploma thesis was rated as "very good" and resulted besides scientific papers in one patent. In 1999 she graduated in biology with the diploma. Subsequently Dr. Deters started a PhD study in Erlangen also under the supervision of Prof. Hensel, who in the meantime had moved to Wädenswil, Switzerland. She investigated the influence of carbohydrates from traditionally used plants on epithelial cells. For that purpose she isolated and phytochemically characterized a number of polysaccharides from various herbal drugs and medicinal plants, like *Isphagula* seed husk (*Pysillium*), Icelandic moss or Bladderwrack (*Fucus vesiculosus*). She tested pharmacological activity of the polysaccharides in an *in vitro* assay with keratinocytes. She used both, cultivated keratinocytes and primary keratinocytes from donor skin. Dr. Deters could show, that xylans and glucomannans preferentially stimulate proliferation of NHK and HaCaT cells, but do not influence mitochondrial activity. However, glucans and polysaccharides from bladderwrack stimulated differentiation of NHK. Rhamnolactanes showed significant effects

on mitochondrial dehydrogenase activity and the proliferation of NHKs. She could also demonstrate that polysaccharides which stimulate proliferation of NHK, also trigger the expression of keratinocyte growth factor KGF and the expression of the receptors for KGF, EGF and insulin. In summary, Dr. Deters could demonstrate new and highly interesting effects of polysaccharides from herbs used in dermatology, which could even lead to the development of new products. She has used various phytochemical, pharmacological and molecular biological methods and therefore represents the modern multidisciplinary approach in pharmacognosy.

Her thesis with the title "Oligo- and polysaccharides: Isolation, characterization and influence on cell physiology of human keratinocytes" was accepted by the Faculty of Natural Sciences of Friedrich-Alexander-Universität Erlangen-Nürnberg with the best possible ranking *summa cum laude* in 2003. Dr. Deters has already published 10 original papers in high impact journals, including *Planta Medica*, has filed two patents and has presented lectures and posters at several congresses.

The panel of judges for the Egon Stahl Award decided unanimously that the studies of Dr. Deters are an excellent example of an interdisciplinary approach in medicinal plant research, covering the fields of pharmacognosy, pharmaceutical biology, and analytical phytochemistry, and therefore fully reflect the spirit of the Egon Stahl Award.

Prof. Bauer congratulated Dr. Deters and presented her the bronze medal, the document and the monetary prize. The document reads as follows: "The Society for Medicinal Plant Research (Gesellschaft für Arzneipflanzenforschung) presents the Egon Stahl-Award 2004 with the bronze medal to Dr. Alexandra Marina Deters in recognition of her valuable contributions to pharmacognosy, pharmaceutical biology and analytical phytochemistry, in particular by her outstanding studies on oligo- and polysaccharides, their isolation, characterization and influence on cell physiology of human keratinocytes."

R. Bauer

Planta Medica: online submission

All manuscripts for *Planta Medica* are subjected exclusively to online submission in order to speed up evaluation and printing time. Please use the following entry:

<http://mc.manuscriptcentral.com/plamed>

Future GA Meetings

53rd Annual Congress in Florence, Italy, August 2005

In 2005 the 53rd Annual Congress of the Society for Medicinal Plant Research will take place in Florence, Italy, and will be organized as a joint meeting together with the Italian Society of Phytochemistry. All researchers in the field of medicinal plants and bioactive natural products are cordially invited to participate in this international meeting. In contrast to the "tradition", the Annual Congress 2005 will not take place in the first week of September, but it will be held from 21 August (registration and get-together party) till 25 August (botanical excursion). The first announcement will circulate at the end of July 2004 and all the information concerning the 53rd Annual Congress in Florence are also available on a special homepage: <http://www.farmacia.unifi.it/gacongress2005.html>

GA travel grants 2005

Graduate students who are members of the GA and like to present their scientific results during the Florence meeting are eligible for a travel grant. The respective applications forms are part of the second circular of the conference. Additionally to this form applicants have to submit the following documents for review before application can be considered:

- application form, filled out correctly. Download: www.ga-online.org
- letter of recommendation by the supervisor
- curriculum vitae
- GA membership number and the year of joining the GA
- a signed statement, that the applicant has not received a GA travel grant in former years
- a copy of the valid student card

Prerequisite for the travel grant is the acceptance of the abstract by the organizing committee. Only one travel grant can be granted per one working group. An applicant can only once obtain a travel grant. The registration fee must be paid by the participant in all cases. The number of grants is limited. The travel grant will not cover all costs of the conference, travel and accommodation.

Applications should be sent in hardcopy before deadline of April 30th, 2005 to:

Prof. Dr. A. Hensel, Institute of Pharmaceutical Biology and Phytochemistry, Hittorfstrasse 56, D-48149 Münster, Germany

Other Meetings

Mumbai, India, February, 04–05, 2005

National Seminar on Globalising Ayurvedic & Herbal Products: Challenges and Strategies

To discuss strategies for standardizing ASU formulations. To exchange ideas on various approaches to globalising ASU drugs. To understand requirements of foreign regulators.

To arrive at a consensus approach to face challenges of globalising ASU drugs.

To provide a platform common to manufactures, practitioners, researchers and regulators.

Contact: S.P. Mandali's, Ramnarain Ruia College, Matunga, Mumbai 400 019; Tel.: +91 22 24143098/24143119; Fax: +91 22 24078879; rtsane@vsnl.net and tdmlab@vsnl.net

Lihue (Kauai), Hawaii, April, 04–05, 2005

The "Omics Revolution": Emerging Scientific Technologies and their Application to the Dietary Supplement and Natural Products Research

The objectives of the meeting are to promote a scientific multidisciplinary exchange of ideas that will stimulate the use of these new research tools and methods for the assessment of dietary supplements and natural products, as well as facilitate new cross-disciplinary research initiatives in these fields.

Contact: Dr. Gail B. Mahady, Departments of Pharmacy practice and Medicinal Chemistry and Pharmacognosy, University of Illinois at Chicago, 833 South Wood St, Chicago, IL 60612, USA; Tel.: 312-996-1669; Fax: 312-413-5894; mahady@tigger.uic.edu

Regensburg, Germany, May, 14–16, 2005

3rd European Conference on Viral Diseases

Contact: Congress Organisation, C. Schäfer, Franz-Joseph-Str. 38; D-80801 München; Fax: +49/89/3071021; www.convir.de

Palenque, Mexico, June, 12–15, 2005

4th International Symposium Ethnobotany Disciplines Medicinal Plants, Folk Traditions, Archaeomedicine, Ethnomedicine, Ethnopharmacology, Pharmacognosy, Phytoecology, Sustainable Development

Contact: Friends the University for Peace Foundation, Costa Rica; simposio@amnet.co.cr or chavesronald@hotmail.com or <http://www.costarricense.cr/pagina/plantamed/>

Vienna, Austria, July, 17–23, 2005

XVII International Botanical Congress

Topics to be covered include 1) cell biology and molecular genetics, 2) genomics, proteomics, metabolomics, 3) structure and development including functional aspects, 4) botanical diversity,

systematics, 5) population biology, 6) plant-/eco-physiology, biogenic cycles, 7) phytochemistry, 8) ecology, environment, conservation biology, 9) human society and plant sciences, 10) natural resources, biotechnology, economic botany, and 11) knowledge sharing databases, bioinformatics, electronic communications, education.

Nomenclature section: July 13–16, 2005.

Contact: ibc2005@medacad.org or <http://www.ibc2005.ac.at/>

Berlin, Germany, Oktober, 6–8, 2005

Joint-meeting of “Deutsche Gesellschaft für Klinische Pharmakologie und Therapie” and “Society for Phytotherapy” and “Society for Medicinal Plant Research”

Contact: Prof. Dr. Hans D. Reuter, Siebengebirgsallee 24, 50939 Köln; Tel.: 49-(0)221-4201915; Fax: +49-(0)221-9417020; ges-phyto@t-online.de or <http://www.phytotherapy.org/kongress-2005.htm>

Funchal, Madeira (Portugal), November, 01.–05.2005

Phytotherapy – the role of an ancient tradition in modern times

Contact: Prof. Paula Castilho, Universidade da Madeira, Department of Chemistry, Campus Universitario da Penteada, Funchal, 9000-390, Madeira, Portugal; Tel.: + 351 291 705 102; Fax: + 351 291 705 149; castilho@uma.pt or <http://www.dmu.ac.uk/ln/pse/socmeet.htm>

Meeting reports

52nd Annual Congress of the Society for Medicinal Plant Research In Phoenix, Az-USA

The 52nd Congress of GA in 2004 was a joint meeting with the American Society of Pharmacognosy (ASP), Association Franco-phonie pour l'Enseignement et la Recherche en Pharmacognosie (AFERP) and the Phytochemical Society of Europe (PSE) taking place at the Westin Kierland Resort in Phoenix, Az, USA, July 31–Aug 4. About 650 scientists from 49 countries – among them 92 members of GA – gathered for the International Congress on Natural Products Research (ICNPR)–2004 organized by Profs. Pedro Chavez, Midwestern University Glendale, Az., and David Slatkin, Chicago State University, with the great support of their families.

The meeting began Saturday, Jul 31, with a satellite symposium “Classical Pharmacognosy Forum: The critical need for Pharmacognosy in Pharmacy Curricula”, initiated and organized by the editor of the US Herbal Pharmacopoeia, Roy Upton. In the US the discipline of Pharmacognosy is at an important crossroad: On the one hand there is an increasing demand for the skills that pharmacognosy provides, on the other, pharmacognosy is virtually disappearing from the pharmacy curriculum in major pharmacy colleges in the US. Pharmacognosists from Europe (mainly GA members) were asked to share their experience and developments with the US colleagues: Profs. W. Kubelka and S. Glasl, both from the birthplace of pharmacognosy, the Inst. of Pharmacognosy in Vienna, gave an overview on the origin and history resp. classical techniques of pharmacognosy, Prof. L. Bohlin, Uppsala-SE newly defined pharmacognosy in a modern way (“Modernizing Pharmacognosy to a molecular Science”). Whereas Prof. N.R. Farnsworth, Chicago, described “The decline of Pharmacognosy in the US”, Prof. H. Wagner, Munich, enthusiastically highlighted the “Revival of Pharmacognosy”. Prof. M.A. Popp, Neumarkt, underlined its important role in the industrial development of herbal products, Prof. I. Khan, University of Mississippi, gave an “academic perspective of Pharmacognosy in quality control of herbals”. The pre-symposium further stressed the role of pharmacognosy in the exploration and integration of standardization methods, the elucidation of chemical and pharmacological profiles or the validation of claims for health food and dietary supplements. New educational programs were discussed.

Saturday evening a Welcome Reception was held at the Westin Kierland.

ICNPR officially started on Sunday, Aug 1, with opening remarks of

the presidents of the 4 participating societies, Jon Clardy of ASP, J. Boustie of AFERP, R. Bauer of GA, M. Petersen of PSE and the organizers Chavez and Slatkin. It continued with the “Structure based Biosynthesis Symposium”. The scientific program of the conference consisted of 4 symposia including 16 invited presentations, 7 award presentations, 43 contributed oral and 588 contributed poster presentations in 3 sessions (the pdf-file of the original abstract book of ICNPR-2004 can be found in the GA-Homepage, s. note below)

GA was asked to organize the “Herbal Symposium” (on Monday) that was dedicated to our and ASP's late honorary member Varro Tyler, who died in 2001. In 5 plenary lectures the GA speakers elucidated special European aspects in phytopharmaceutical research. A. Vlietinck, Antwerp, spoke about the “Current Status and Perspectives for Herbal Preparations as Medicinal Products or Food Supplements in the European Union”, A. Nahrstedt, Muenster, about “Physico-chemical Interactions of Constituents in Plant Extracts and Efficacy”, I. Roots, Berlin, about “Herb – Drug Interactions”, C. Ismail, Neumarkt, about “Herbal Medicinal Products in Clinical Research: Drug Safety – needs, trends and – fashion?” and W. Wuttke, Braunschweig, about “Estrogens versus Phytoestrogens”. Prof. G. Franz's talk on “Global Harmonization of Quality standards for HMPs” had to be cancelled due to health reasons and was replaced by the short lecture of U. Sievers, Vestenbergsgreuth, who reported on “Pesticide Residues of Herbal Medicinal Drugs in the Pharm. Eur. and USP – Actual situation and proposals for an amendment of the maximum residue levels”. The Herbal Symposium was topped by the award presentation of the newly inaugurated Varro Tyler Prize for Research in Botanical Dietary Supplements (sponsored by Pharmanex) to Dr. E. Bombardelli, Indena, Milan, Italy, who thanked with a talk about “Twenty years Experience in the Botanical Health Food Market”. The ceremony ended with an homage to Varro Tyler by M. Blumenthal.

Monday evening featured a visit to Rawhide Western Town and a traditional cowboy steak dinner (where even some GA members learned the western “line-dance”).

The Tuesday “Sand and Sea Symposium” included lectures on hot spices as model substances for pain relievers by G. Appendino, University of Piemonte, Italy, on bioactive compounds from Mexican plants (R. Mata, Mexico) and Plant in vitro-cultures and natural Products Research by M. Petersen, Marburg, Germany. G. Koenig, Bonn-Germany, presented her research on new structures from marine organisms with pharmaceutical potential and world famous senior scientist Koji Nakanishi, Columbia University, New York, who will be 80 this year, gave an overview on his life time research, that besides e.g. Ginkgo, visual purple, Circular dichroism or ligand-receptor theories also encompassed marine organisms.

During the free afternoon on Tuesday two excursions were offered: A large group visited the outstanding facilities of the Arizona State University Cancer Research Center, whereas another group visited the Desert Botanical Garden. It was the hottest day of the meeting (52°C) and gave all in attendance a true “desert” experience.

Wednesday belonged to the rest of the oral presentations and the various award lectures. Also Dr. A. Deters, the winner of the Egon Stahl award, presented her research on “Oligo- and polysaccharides, their isolation and characterization and influence on human keratinocytes in vitro.” In the afternoon the members meetings of the various societies took place (see also b.: Report of the members meeting in Phoenix)

During the congress banquet at the Westin on the last evening the awards of all societies (27 in total) were presented to the respective scientists. Dr. A.M. Deters received the bronze Medal of the Egon Stahl award and cheque from our president R. Bauer. He also officially delivered the “Maxi-cheques” of 750 Euros to the GA travel grant recipients: Mathilde Fischer, Graz-AU, Frank Andreas, Würzburg-D, Sonja Frölich, Berlin-D, Monika Hungeling, Muenster-D, Andrea Müller, Innsbruck-AU and Anh Tho Nguyen, Brussels-B. (Giannmario Altenier of Trieste, Italy, was hindered to par-

ticipate). 5 Poster awards of 150 US\$ plus a banquet ticket were given, among them were 2 young GA members: Sandra Kipke of the Nahrstedt group in Münster ("Proanthocyanidins from *Apocynum venetum* L.") and Stefan Schwaiger of the working group of Prof. Stuppner in Innsbruck ("In vitro Leukotriene Biosynthesis Inhibitory Activity of *Leopodium alpinum* CASS. Constituents"). Honorary membership of ASP was presented to Prof. Harry Fong and the ASP research Achievement Award to Prof. J. Clardy. The evening concluded with the traditional "roast" of the ASP outgoing president J. Clardy by the inimitable Prof. Norman Farnsworth. General opinion of most participants: Quite hot, but great and successful. Congratulations and many thanks to the organizers!

Dr. R. Seitz, Munich, Germany

Note: Abstract book ICNPR-2004 for non-participants

Since the abstract book of the joint meeting ICNPR-2004 is very voluminous, it is published under the GA homepage. You can find and download the pdf-file of the abstract book of the ICNPR-2004 in the GA website (www.ga-online.org) or order the pdf-file at the GA secretariat (ga-secretary@ga-online.org) to be sent to you by E-mail as an attachment.

Traditional Chinese Medicines

Meeting organised by the GA in association with the Royal Pharmaceutical Society of Great Britain, the Academy of Pharmaceutical Sciences of Great Britain and the International Society for Ethnopharmacology and held at the Royal Botanic Gardens Kew on June 11th and 12th 2004.

Almost 100 people attended this meeting, which was the first GA meeting to be held in the United Kingdom and they represented many different interests in and aspects of TCM.

Professor Kelvin Chan (Hong Kong Baptist University School of Traditional Chinese Medicine) gave the opening plenary lecture on the impact of Chinese medicine in the West. He contrasted the present situation with that 10 years ago and showed that there had been significant changes for the better in scientific knowledge concerning the chemistry, mode of action and consumer awareness of Chinese medicines. TCM was becoming more widely recognised by health professionals as having value, any improvements in health of those being treated no longer being regarded as due only to a placebo effect. Regulation and moves to improve quality and reduce consumer vulnerability had also occurred. As an indication of its attracting much attention in the Western world, Prof Chan mentioned that over 1000 people had attended a meeting in Melbourne, Australia in late 2003 concerned with TCM. Interest was growing in the academic community and from funding bodies, making grants available for research on TCM. One third of the funds available from the National Institute of Health in USA for complementary medicine research, were allocated to TCM projects and in Australia, Canada, USA, UK and France almost 14,000 clinics where TCM was used were estimated to exist. 10,000 tons of medicinal 'herbs' were now exported from China annually. Hong Kong occupies a key position in the trade because of its good management infrastructure and the commitment of its government. It had led the way in the recent commitment by the government of the Peoples' Republic of China to measures such as Good Agricultural Practice, Good Laboratory Practice and similar procedures to enhance the quality of TCM materials, since it was realised that this was critical for their acceptance for use in much of the world. The need for accurate and selective methods for defining quality for crude drugs and extracts was being addressed, a need highlighted by the fact that a recent analysis that only one of 17 samples of the drug Liu Shen Wan had been shown to be of good quality. The Hong Kong Accreditation Service was constructing standards based on ten samples for each drug, acquired from suppliers based locally and in mainland China. It was taking into account modern methods such as DNA fingerprinting, and functional genomic factors as well as the more conventional analytical methods.

Professor Monique Simmonds (Royal Botanic Gardens Kew) described the projects which she was leading concerning authentication of Chinese herbs. This work had arisen as a response to consumer requests made to Kew about TCM plants, which had increased from 2 in 1995 to 128 in 2002. She emphasised the ease of authenticating samples of crude drugs compared with the many patent Chinese medicines which existed, which often contained extracts, usually in a combination from several plant species. Kew was well-placed to carry out such work because of its almost unique range of specialist knowledge in the realms of comparative plant biology, biodiversity and interest in sustainable use. Professor Simmonds outlined the lack of authentic specimens for plant materials and of pure compounds for chromatographic comparisons and how this had driven collaborative projects between Kew and institutes in China to acquire voucher specimens of both plant material and the derived crude drug in recent years. A total of 1700 samples had now been acquired and techniques such as chromatography (especially linked with mass spectrometry), the polymerase chain reaction and other molecular biological techniques were being used to provide multidimensional standards.

Professor Simmonds spoke of the fact that TCM had somewhat of a bad press because of some errors but in fact it was being found that good material was more likely than not to be provided. Using the standards established, 120 specimens from a variety of traders had been obtained and analysed, and all were found to be correctly labelled. Tests for pesticides and heavy metals showed that all the samples were within the permitted limits.

Professor Paul But (Chinese University of Hong Kong) discussed toxicological aspects of TCM. His first topic, the nephrotoxicity of TCM materials containing aristolochic acid, had already been mentioned by Professor Simmonds. It was unfortunate that the cases which had received much publicity over the last 10 years, had resulted in the term 'Chinese herb nephrology' being introduced. Discussion of the paper supported the view of Professor But that the term implied that all TCM was a safety risk. Nevertheless, in addition to fatalities and other severe toxic events reported from Belgium, the UK and several other countries, over 100 cases of nephrotoxicity had now been reported from China where *Aristolochia* and *Asarum* species, which contain aristolochic acid, were dispensed under the name 'Mu Tong'. The Chinese authorities had now introduced a ban on several species, such as had happened in UK a few years ago. Professor But also mentioned other cases of toxicity due to the wrong drug being supplied, such as tropane alkaloid poisoning occurring because *Datura metel* flowers had been supplied instead of those from a *Paulownia* species. He also mentioned poisoning occurring because of overdose and, as an example, three fatalities had occurred in Hong Kong in recent years due to *Aconitum* toxicity. Contamination with heavy metals as a result of poor processing techniques, as well as contamination of 'herbal' products with conventional drugs, had also occurred. Professor But summarised the various means by which toxicity arose and emphasised that quality control, training of suppliers and the provision of more information about the medicines could all help reduce the risk of toxic events occurring.

The final plenary speaker was professor Rudolf Bauer (Head of Pharmacognosy, University of Graz, Austria) who described various studies on the chemistry and in vitro biological activity on Chinese herbs, particularly those used for inflammatory conditions. 1318 species of Chinese herbs came into this category and Professor Bauer described screening which he and his colleagues had carried out on almost 30 of these for inhibition of cyclooxygenase and 5-lipoxygenase, two key enzymes in the formation of pro-inflammatory eicosanoids. He gave details about compounds which had been isolated from the most active extracts, such as the diterpene tanshinones from *Salvia miltiorhiza*, known as 'Dan Shen' in TCM, a common ingredient in many prescriptions. Other anti-inflammatory compounds which had been isolated included prenylated flavonoids from *Sophora flavescens* and atractylochromene from *Atractylodes lancea*. Professor Bauer emphasised that

the activity of the isolated compounds was often seen to be much weaker than that of the extracts and, in some cases, synergy had been demonstrated by the use of isobolic graphs. He also mentioned some instances where activity noted *in vitro* was not translated when the same extract or compound was tested in animal models.

The great need for good clinical studies to be conducted was discussed by a panel of the speakers and Dr Linda Anderson from the MHRA. Some trials were being conducted in China but the quality was variable and it was difficult for Western researchers to gain access to results because of language problems. The panel also discussed the fate of TCM in the light of forthcoming licensing legislation on Herbal Products in the EU. It appears that a considerable number of TCM herbs in current use will be eligible to be included under the new category of Medicines based on Traditional Use.

As well as the plenary speakers, there were several interesting posters and short oral presentations on topics associated with TCM. One of these was a fascinating survey of the old literature showing that modern stories associated with the identity and traditional use of the herb 'Qing hao su' (the modern source of the antimalarial artemisinin) had little historical basis.

Peter Houghton, London, U.K.

Notes from the Society

Farewell symposium for Prof. Dr. Adolf Nahrstedt in honour of his retirement, 16th of October 2004, Münster, Germany

Within a solemn ceremony over hundred colleagues, former PhD-students, scientists, students and friends had come to University of Münster to farewell Prof. Dr. A. Nahrstedt from his active academic teaching commitments and to celebrate a highly successful quarter of a century of pharmaceutical education and research with Pharmaceutical Biology.

Prof. Nahrstedt finished his degree in Pharmacy at University of Freiburg, Germany, in 1966 and studied food chemistry additionally. He obtained his PhD 1971 under the supervision of Prof. Dr. R. Pohl and habilitated 1976 within Pharmaceutical Biology. From 1976 to 1986 he was installed as professor at University of Braunschweig and took over the chair for Pharmaceutical Biology and Phytochemistry at University of Münster in 1986. Both research areas, the biochemistry and physiology of secondary metabolites in plants and insects as well as phytochemistry of traditional herbal drugs resulted in a high increase in scientific knowledge on these subjects. Results are published within nearly 200 high ranking publications; 49 PhD-thesis and 2 habilitations were finalized under his supervision. Prof. Nahrstedt was rewarded in 1998 as Honorary Member of the European Academy of Natural Medicine, obtained in 1998 the R.F.Weiß award of the Society of Phytotherapy and was honoured in 2004 with the *Doctor honoris causa* by Ovidius-University of Constanta (Romania). The Society of Medicinal Plant Research pays high tribute to Prof. Nahrstedt because of his permanent advices and substantial contributions to the GA advisory board as well as to many substantial scientific questions and discussions in nearly all fields of phytotherapy and phytochemistry. Especially the editorship of Prof. Nahrstedt for the official journal of GA, *Planta Medica*, has to be pointed out. Under his leadership *Planta Medica* turned out to get the world-leading journal in the field of medicinal plant research.

Throughout his academic career he was a very hard and effective working scientist; especially the various administrative tasks at nearly all academic levels and the work in manifold pharmaceutical organisations has to be pointed out.

During the farewell symposium three main lectures were given in honour to the merits of Prof. Nahrstedt: Prof. Hamburger, University of Basel, gave an overview on modern aspects of separation and computer-based structure determination, building the bridge from classical phytochemistry to high-tech identification of the multi-component system plant extract.

Prof. Vollmar, University of Munich, highlighted the possibilities of modern pharmacology as an instrument of pushing Pharmaceutical Biology forward to a rational, scientific discipline. Only if the distinct mechanisms of actions of isolated natural products are known in detail, the challenges of a rational Pharmaceutical Biology can be solved.

Prof. Bauer, University of Graz, presented the way and the career of Prof. Nahrstedt from his early days until today, indicating also the enormous changes of Pharmaceutical Biology within the decades.

The Society of Medicinal Plant Research, represented by the president Prof. Dr. R. Bauer, thanked Prof. Nahrstedt for his enormous efforts for our discipline and for the welfare of *Planta Medica* and the GA. The "Gesellschaft" wishes him all the best, health, vigour in the coming years, fruitful activities in plant research and a lot of time for the private life and hobbies.

A. Hensel, University of Muenster, Germany

Obituary: Prof. Dr Anders Baerheim Svendsen (1920–2004)

On 2 October 2004, Professor Anders Baerheim Svendsen passed away in Oslo, a few months after metastases had been found in his lungs and liver, due to an earlier intestinal carcinoma.

Prof. Baerheim Svendsen – honorary member of the 'Gesellschaft für Arzneipflanzenforschung' (GA) since 1990 – was born in 26 April 1920 in Oslo. Following his graduation from high school, he studied pharmacy at the University of Oslo, where in 1955 he also obtained the degree of Dr philos. on the thesis "*Zur Chemie norwegischer Umbelliferen*".

In the period 1946–1965, he worked at the Institute of Pharmacy of the same university, first as assistant and later as associate professor. In the mean time he spent two years (1961–1962) as post-doctorate fellow at the School of Pharmacy, University of California (USA).

Together with his wife Borghild – also a pharmacist – he moved in 1965 to The Netherlands, where he was appointed Professor of Pharmacognosy at the State University of Leiden.

Professor Baerheim Svendsen was author and co-author of more than 300 scientific papers, several chapters in books, and three books, e.g. two volumes on "Chromatography of Alkaloids". Many of his scientific studies were devoted to the application of chromatographic methods. He was one of the pioneers of chromatography applied to natural products chemistry. In the early 1950s, he used paper chromatography, e.g. for the analysis of cardiac glycosides, morphine, and coumarins. In the USA, he applied gas chromatography to analyse alkaloids. In Leiden, his two main interests were phytochemical studies of alkaloids and essential oils, and he paid special attention to the improvement of analytical (chromatographic) methods and techniques and the prevention of artifact formation.

Professor Baerheim Svendsen served the scientific community in several ways. He acted as President (1984–1988) and as Vice-President (1988–1989) of the GA, and organised two annual GA meetings, in 1967 in Leiden and in 1987 in a congress centre (a new experience for the GA) in Noordwijkerhout. He was also one of the four founders of the successful series of annual meetings that are known as 'International Symposium on Essential Oils' (ISEO). The last one of these meetings (35th ISEO) was held on Sicily; during the days that event took place, he passed away in Oslo.

Professor Baerheim Svendsen was also one of the initiators of another series of annual meetings, namely the so-called 'LOF' symposia. He arranged the very first one of these symposia in the Institute of Pharmacy in Leiden, in September 1974. Four years later, the Flemish colleagues joined the Dutch discussion group, and since 1980 the symposia are organised alternately by the pharmacognosy divisions of Dutch and Flemish universities.

He acted also as President of the 'Dutch Society for Medicinal Plant Research' (1982–1990), and he was member of the Editorial

(advisory) Boards of some journals. By his activities for the various societies, he always intended to promote the research in pharmacognosy, as he was convinced that Nature was and still is an excellent source of new chemical structures that can serve as (models of) better biologically active compounds.

During his period in Leiden (1965–1990), Professor Baerheim Svendsen was an inspiring teacher for many pharmacy students, and an excellent supervisor of 20 Ph.D. students; five of these became later on professor, in The Netherlands and Norway, which he enjoyed very much. In 1993, three years after his retirement, he and his wife returned to his old home city Oslo where he started again with some activities at the Institute of Pharmacy. He finished his last paper in August 2004!

The loss of Professor Baerheim Svendsen will be deeply felt in the world of medicinal plant research, thus including the GA, as we not only have lost a great colleague and teacher, but also a good friend. Personally, I consider it a great privilege to have been in close contact with him for so many years.

Finally, we wish Mrs Baerheim Svendsen much strength in the present, very difficult period of her life, after a marriage of almost 54 years.

J.J.C. Scheffer, Center for Bio-Pharmaceutical Sciences,
Leiden University

New Books and Journals

The Handbook of Clinically Tested Herbal Remedies, Volumes 1 & 2 (2004) Ed. By Marilyn Barrett, The Haworth Herbal Press, New York, London, Oxford, ISBN 0-7890-1068-2. Two volumes with about 700 pages each; \$ 159.95.

A practical handbook listing clinical data on most relevant herbal extracts and remedies used for rational phytotherapy.

Part 1: Fundamentals of herbal medicine (product definition, identification, standardization, bioavailability, evidence-based medicine, clinical trials of herbal remedies etc.)

Part 2: Methods of product and trial inclusion and evaluation, clinical trial reviewers guidance and checklist

Part 3: Product and clinical trial information: Artichoke, Bilberry, Black Cohosh, Boxwood, Butterbur, Cats Claw, Chaste Tree, Cordyceps, Cranberry, Devils Claw, Dragons Blood Croton, Echinacea, Elderberry, Evening Primrose, Garlic, Ginger, Ginkgo, Ginseng, Grape Seed, Grass Pollen, Green Tea, Hawthorn, Horse Chestnut, Kava, Lemon Balm, Milk Thistle, Pygeum, Red Clover, Red Yeast Rice, Saw Palmetto, St. Johns Wort, Valerian, 2nd Wind[®], Cyston[®], Gastrim[®], Geriforte[®], Iberogast[®], Padma[®], Phytodolor[®], Prostate[®], Resistex[®], Sinupret[®].

Each subpart on a special extract or a product listed in Part 3 is subdivided in:

- Preparations used in the reviewed clinical studies, all clinical tests in a summarizing table, summary of all reviewed clinical studies, systematic reviews, adverse reactions or side effects in clinical studies, details on the tested products.

The reviews are written in a clear and systematic language; the message of each clinical trial is given accurately and a scientific assessment to each study is presented. Because most relevant studies published are reviewed each chapter provides an excellent overview on all trends on a special product. Clinical trials are listed very much in relation to the final phytopharmaceutical preparation and the authors try hard to correlate the specific characteristics of the tested commercial extract to the clinical data. For all those who wish to get deeper into the study protocols and evaluations, respective data are presented. Literature references can lead deeper into the material

An excellent handbook for each scientist and practitioner dealing with the rational use of herbal remedies.

A. Hensel

ARZNEIDROGEN; T. Dingermann, K. Hiller, G. Schneider, I. Zürndorf; 5thed.; 2004; Elsevier – Spektrum, Akademischer Verlag, ISBN 3-8274-1481-4; 600 pages, 502 dichromic figures, € 50,-

A new edition of the famous textbook for students as well as a reference finder for pharmacists and related scientists. Chapters on medicinal plants, microorganisms and animal-derived low-molecular pharmaceutical entities. Main focus is laid on the principles of biosynthesis.

Recent thesis on medicinal plant research

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

Ph.D. thesis, 2004, Biological and antiviral activity of derivatives of natural sesquiterpenes and taxol. By Ewa Krawczyk, promotor: Prof. Dr. M. Luczak, Medical University of Warsaw, Poland.

Ph.D. thesis, 2004, Antioxidant Properties of Aqueous Extracts from Selected Culinary Herbs. By Oliver Bachmayer, promotor: Prof. Dr. B. Kopp, University of Vienna (Austria), Institute of Pharmacognosy and R. Hiltunen, University of Helsinki, Institute of Pharmacy (Finland).

Ph.D. thesis, 2004, Characterisation of apoptosis signal transduction induced by the marine compound cephalostatin 1 in leukemic cells. By Irina Müller, promotor: Prof. Dr. Angelika Vollmar, Department of Pharmacy, University of Munich, Germany.

Ph.D. thesis, 2004, Isolierung von Sesquiterpenen aus einem italienischen Schafgarbenmuster. By Christina Biringer, promotor: Prof. Dr. G. Reznicek, University of Vienna (Austria) Institute of Pharmacognosy.

Ph.D. thesis, 2004, Chemische und enzymatische Vortestung von Rotklee-Extrakten. By Lucija Brezina, promotor: Prof. Dr. L. Krenn, University of Vienna (Austria), Institute of Pharmacognosy.

Ph.D. thesis, 2004, Separation und quantitative Bestimmung der Flavonoide in Hb. Droserae mittels HPLC. By Verena Danzer, promotor: Prof. Dr. L. Krenn, University of Vienna (Austria), Institute of Pharmacognosy.

Ph.D. thesis, 2004, Analytik von Steroidsapogeninen in *Dioscorea villosa*. By Susanne Farnleitner, promotor: Prof. Dr. B. Knopp, University of Vienna (Austria), Institute of Pharmacognosy.

Ph.D. thesis, 2004, Charakterisierung der mikrobiellen Qualität von Arzneipflanzen biologischer Herkunft. By Irene Hafeneder, promotor: Prof. Dr. B. Kopp, University of Vienna (Austria), Institute of Pharmacognosy.

Ph.D. thesis, 2004, Untersuchung von Inhaltsstoffen einheimischer *Epilobium*-Arten. By Maria Lachinger, promotor: Prof. Dr. W. Kubelka, University of Vienna (Austria), Institute of Pharmacognosy.

Ph.D. thesis, 2004, Isolierung und Strukturaufklärung von nicht-flüchtigen phenolischen Inhaltsstoffen aus Thymiantrockenextrakt. By Astrid Obmann, promotor: Prof. Dr. G. Reznicek, University of Vienna (Austria), Institute of Pharmacognosy

Editorial remark

All contributions for the GA-Newsletter are welcome. Deadline for submission for the next edition is fixed to May 31st 2005. Please send all contributions by e-mail or disk to:

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