

## Message from the President



Dear members,

The 61<sup>st</sup> International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA) has been held in Münster, Germany, from September 1–5 this year. With about 755 participants, various workshops, exciting plenary and short lectures, a lot of interesting posters and an attractive social program the congress was very successful. Many thanks to the chairs of the congress, Prof. Andreas Hensel and Prof. Thomas J. Schmidt, and their team for a perfect organization. The abstracts of all presentations of the congress have been published in *Planta Medica* and can be downloaded by GA members from the GA homepage in the members' area. In the opening ceremony of the congress eight travel grants could be presented by GA to young participants of the congress. Prof. Dr. Sandra Apers (Antwerp, Belgium) received the Egon-Stahl-Award in Silver and Prof. Dr. Robert Fürst (Frankfurt, Germany) was winner of the Bionorica Phytoneering Award 2013. In a special session the 60 years anniversary of *Planta Medica*, the official organ of GA, was celebrated. For the first time also the most innovative publication in *Planta Medica* of the year 2012 was awarded and winner was Prof. Susan Murch (University of British Columbia, Canada). Of course all members of GA are also asked to help to ensure the high standard of *Planta Medica* by submitting high quality papers. A comprehensive report on the Annual GA-Meeting you can find later in this Newsletter.

Before the beginning of the congress a GA-BoD Meeting on Saturday and Sunday morning took place in order to discuss a lot of GA-affairs. During the Members Meeting on Tuesday evening, the ExC and the BoD of GA for the period 2014/15 have been newly elected. The minutes of the members meeting including the detailed results of the elections are published in this Newsletter. Prof. Matthias Hamburger has been elected as the new president of GA. I heartily congratulate him

and wish him a successful presidency. Prof. Anna Rita Bilia and me have been elected as vice presidents, and Dr. Bernd Roether as treasurer and Dr. Birgit Benedek as secretary again. I want to thank all colleagues from the previous ExC and BoD very much for the good collaboration and all their support. Special thanks go to Prof. Brigitte Kopp who was vice president of GA for the last two years after her presidency for 4 years and a long period as vice-President and BoD-Member in the time before. She has always shown great commitment to GA's interests.

The next and 62<sup>nd</sup> Annual Congress of our Society will be held at the University of Minho in Guimarães, Portugal, August 31 – September 4, 2013. It will mainly be organised by Prof. Dr. Alberto Dias and AFERP (Association Francophone pour l'Enseignement et la Recherche en Pharmacognosie) will participate by organising an own session on specific topics. For details see the announcement in this newsletter and on the GA-homepage. At the GA-Congress in Guimarães three awards and one scholarship will be presented: The Egon Stahl Award in Gold, the Egon Stahl Award in Bronze, the Dr. Willmar Schwabe Award and the Dr. Willmar Schwabe Scholarship for Young Scientists. These Awards and the scholarship are announced in this newsletter, but also on the GA homepage and in *Planta Medica*. Applications of GA-members are very welcome.

GA had applied for the 7<sup>th</sup> framework program of the European Union and became a validated partner being able to participate in European and international projects as a legal entity. Now with Horizon 2020 the next EU's programme for research and innovation will start in 2014 and run until 2020 with an immense budget. A short information about Horizon 2020 can be found in this newsletter.

The new foundation "Plants for Health", which has been created by GA, again asks for financial support by GA members in order to be able to provide funding of research networks, innovative projects and junior research groups and to promote research activities in the field of medicinal plant research. More details you can find later in this newsletter and on the GA homepage.

Fortunately the number of GA-members compared to data presented one year ago increased to about 1.450 members from all over the world now. In the course of the congress in Münster as well as in the last months again some more scientists from various countries became members of GA, they all are very welcome.

I wish all of you a happy, healthy and successful year 2014 and I'm looking forward to see many of you at least at the Annual GA-Congress 2014 in Guimarães in Portugal.

Cordially,  
Wolfgang Blaschek  
GA President



## A Foundation of the Society for Medicinal Plant and Natural Product Research (GA)

A new foundation supporting research into all aspects of medicinal plants and natural products has been created by the Society for Medicinal Plant and Natural Product Research (GA) and is asking for your support.

Medicinal and natural product research is thriving all over the world. There is a considerable interest in this field of research especially from younger scientists. This is also an area of tremendous interest for the general public with new products offering opportunities for farmers, producers and retailers. However, there is a consistent and deepening lack of public funding particularly for projects which are at an early stage of development.

Our key goal is to support highly innovative and multidisciplinary research projects which will strengthen the academic basis of medicinal plant and natural product research and to nurture emerging research networks.

Specifically the Foundation will:

- Initiate scientific collaboration and the development of research networks
- Provide start-up funding for innovative projects
- Provide start-up funding for best in class junior research groups and their leaders.

The funds will initially be used for travel and equipment facilitating proof-of-concept projects. Your donation will help to foster innovation and research in the fields of medicinal plant and natural product research and you will benefit from tax concessions (depending on your tax status and the regulations in your country of residence).

The foundation will be managed by the chairman Prof. Dr. R. Bauer (Graz, Austria) together with Prof. Dr. M. Heinrich (London, UK), Prof. Dr. A. Hensel (Münster, Germany) together with Dr. B. Roether (Neumarkt, Germany) as an adviser.


Contributions can be made to:

Recipient: Foundation 'Plants for Health'  
Bank: UniCredit Bank AG  
Oberer Markt 42  
92318 Neumarkt, Germany  
IBAN: DE26 7602 0070 0018 2195 90  
BIC.: HYVEDEMM460

For further enquiries, please contact the Chairman of the Foundation Board, Prof. Rudolf Bauer ([rudolf.bauer@uni-graz.at](mailto:rudolf.bauer@uni-graz.at)), the President of GA, Prof. Matthias Hamburger ([Matthias.Hamburger@unibas.ch](mailto:Matthias.Hamburger@unibas.ch)), or visit the website [www.ga-online.org/plants-for-health](http://www.ga-online.org/plants-for-health).

On behalf of the many researchers in this field, thank you very much in advance for your support.

## Notes from the Society



**Editorial remark**

**All contributions for the GA-Newsletter are welcome.**

**Deadline for submission is fixed to May 20<sup>th</sup> 2014.**

**Please send all contributions by e-mail:**  
**Prof. Dr. A. Hensel**  
**University of Münster,**  
**Institute for Pharmaceutical Biology and Phytochemistry,**  
**Corrensstrasse 48,**  
**D-48149 Münster, Germany**  
**[ahensel@uni-muenster.de](mailto:ahensel@uni-muenster.de)**



## New GA members

Since May 2013 the following 90 members have joined our Society.

GA warmly welcomes all new members and hopes that the Society may get an international platform for many scientific and personal contacts.

Chika **Abba**, Nigeria; Dr. Kamal El-Din Abd El-hak Mohamed **Aboud**, Egypt; Dr. Awo-dayo **Adepiti**, Nigeria; Amma. G. **Adomako-Bonzu**, United Kingdom; Eze **Ajaegbu**, Nigeria; Dr. Peter O. **Ajagbonna**, Nigeria; Daniel **Ajaghaku**, Nigeria; Innocent **Ajawobu**, Nigeria; Herve Sergi **Akone**, Germany; Aljawhara **Alquathama**, United Kingdom; Dr. Madhavi **Anne**, India; Messay **Anshebo**, Ethiopia; Dr. Amani **Awaad**, Saudi Arabia; Marcus **Ayoola**, Nigeria; Pravin **Badhe**, United Kingdom; Dr. Dayang Fredalina **Basri**, Malaysia; Rita Frema **Boadu**, Ghana; Yaun Duah **Boakye**, Ghana; Alen **Bozicevic**, Switzerland; Ya-Chih **Chang**, Taiwan, Province of China; Priyanka **Chaudhary**, India; Antigoni **Cheilari**, Austria; Dr. Ericsson **Coy-Barrera**, Colombia; Nunziatina **Detommasi**, Italy; Prof. Alberto **Dias**, Por-

tugal; Dibyendu Dutta **Majumdar**, Germany; Prof. Dr. Hesham **El-Askary**, Egypt; Charity **Ezea**, Nigeria; M. **Gnanamorthy**, India; Prasanna **Govindarajan**, India; Moritz **Graf vom Hagen-Plettenberg**, Germany; Sebastian **Granica**, Poland; Dr. Maria **Groot**, Netherlands; Clizia **Gucione**, Italy; Prof. Hanaa Hamdy **Ahmed**, Egypt; Heike **Hofert**, Germany; Dr. Mohamed Mostafa **Ibrahim**, Egypt; Dr. Hongyu **Jin**, China; Antoine Kada **Sanda**, Cameroon; Dr. Uche **Kanife**, Nigeria; Karmen **Kapp**, Helsinki; Dr. Heng Yen **Khong**, Malaysia; Dr. Emelia **Kisseih**, Germany; Vasilios **Koumentakis**, Greece; Sonja **Krstin**, Germany; Dr. Chris **Kumi**, Canada; Dr. Matthias **Lorenz**, Germany; Dr. Shuang Cheng **Ma**, China; Prof. Olubunmi **Magbagbeola**, Nigeria; Dr. Nurkhasanah **Mahfudh**, Indonesia; Dr. Joe-Ann **McCoy**, United States of America; Dr. Ilhem **Mechemache**, Algeria; Dr. Alain Meli **Lanang**, Cameroon; Inés Méndez **Tovar**, Spain; Dr. Ruta **Mickiene**, Lithuania; Dr. Neelam **Misra**, Nigeria; Dr. Khamsah **Mohd**, Malaysia; Dr. Marizvikuru **Mwale**, South Africa; Dr. Kakha **Nadiradze**, Geor-

gia; Flore **Nardella**, France; Florence **Nkemhule**, Nigeria; Norhayati **Nordin**, Malaysia; Ogonna **Nwankwo**, Nigeria; Dr. Nicholas **Oberlies**, United States of America; Samuel **Odediran**, Nigeria; Dr. Joseph **Olagunju**, Nigeria; Ejlal Abdulrazig **Omer**, Sudan; Dr. Akhere **Omonkua**, Nigeria; Dr. Iyere **Ondagbe**, Nigeria; Dr. Felix **Onyegbule**, Nigeria; Sumalee **Panthong**, Thailand; Jakub **Piwowski**, Poland; Ms. Seidjolo **Quenum**, Germany; Ms. Ruchilak **Rattarom**, Thailand; Olfa **Rbia**, Tunisia; Dr. Ulrike **Reusner**, Germany; Research Institute for Medicinal Plants Ltd., Hungary; Ben **Rockefeller**, Belgium; Maria Eleni **Sakavitsi**, Greece; Intouch **Sakpakdeejaroen**, Thailand; Dr. Ramachandran Sarojini **Santhosh**, India; Dr. Buket **Sarikaya**, Turkey; Dr. Qingyao **Shou**, Australia; Imen **Smida**, France; Claudia **Souza**, Brazil; Dr. Lerluck **Steinrut**, Thailand; Blessing **Umeokoli**, Nigeria; Dr. Alvaro **Viljoen**, South Africa; Dr. Feng **Wei**, China; Stefan **Wiesneth**, Germany.

Dr. Birgit Benedek, GA Secretary

## Egon Stahl Award in Silver 2013 for Sandra Apers

The aim of the Egon Stahl Award in Silver is to recognize and promote young scientists working in the field of Pharmacognosy (Pharmaceutical Biology) and Analytical Phytochemistry. The silver medal and an award of 3,000 € is given to scientists up to the age of about forty, who have published outstanding scientific work during the years following their graduation. On occasion of the Annual GA-Congress 2013 in Münster, Germany, the award was presented to **Prof. Dr. Sandra Apers** from the University of Antwerp in Belgium.

Sandra Apers graduated as pharmacist at the University of Antwerp in 1995 and then specialised in Industrial Pharmacy. With a scholarship of the Fund for Scientific Research Flanders she could start research in 1996 at the University of Antwerp. In 2000 she got her PhD in Pharmaceutical Sciences with a thesis on structure elucidation and biological evaluation of active constituents of different medicinal plants (*Maesa lanceolata*, *Aleurites moluccana*,

*Quassia africana*). From 2000 till 2006 in a post-doc position at the University of Antwerp she was engaged in the fields of isolation and structure elucidation of natural compounds and analytical development and validation of methods. In 2006 she became Professor in Pharmaceutical Analysis at the University of Antwerp. She



has published more than 100 papers mainly in the field of isolation and characterisation of secondary metabolites of medicinal plants also in collaboration with research groups of Pharmacology and Pharmaceutical Technology. She has a mandate as the Belgian expert in the European Pharmacopoeia Commission 13A on Pharmacognosy. Today she is an internationally recognized scientist with many collaborations and invitations for oral presentations.

The Egon-Stahl-Award in silver went to Prof. Dr. Sandra Apers for her research in the areas of isolation, structure elucidation and biological activity of natural products as well as the development of innovative methods for the analysis and quality control of herbal medicinal preparations. On Monday morning in the course of the opening ceremony of the GA-Congress Sandra Apers gave an award lecture entitled "Scientifically based, high-quality phytotherapeutics".





## Bionorica Phytoneering Award 2013 for Robert Fürst



The Bionorica Phytoneering Award (BPA) acknowledges outstanding research and development with regard to medicinal plants.

Scientists normally younger than 45 years of age from all over the world shall be motivated to perform research with regard to herbal drugs focusing on phytoanalytics, pharmacokinetics, pharmacodynamics, phytomedicine, analytical approaches including active principles, metabolomic approaches, research leading to the identification of new pharmacological mechanisms and new techniques especially applied for herbal drugs

The award is endowed with 10 000 €. The Awarding Institution is GA, the endorsing sponsor is the company BIONORICA in Neumarkt, Germany.

This year, the award was given to Prof. Dr. Robert Fürst from the University of Frankfurt, Germany, for his excellent scientific work in investigating novel molecular mechanisms of herbal compounds and extracts in the area of inflammation, angiogenesis and endothelial interactions.

Robert Fürst after school first studied physics at the Technical University of Munich and closed with a pre-Diploma. In

1996 he started to study Pharmacy at the Ludwig-Maximilian University of Munich and got his 2<sup>nd</sup> state examination in 2000 and his 3<sup>rd</sup> state examination in 2001. In 2002 at the Department of Pharmacy at the University of Munich he started his PhD-research activities in Pharmaceutical Biology concerning the identification and induction of MKP-1 as central mediator of cytoprotective effects in human endothe-



lial cells. From 2005 until 2007 after having finished his PhD-Thesis he was post-doc at the Chair of Pharmaceutical Biology at the University of Munich. In 2011 he got the Venia legendi for "Pharmaceutical Biology" and "Pharmacology for Natural Sciences" with research on mitigating inflammatory processes by biogenic compounds. Since end of 2012 he is Professor of Pharmaceutical Biology at the Goethe-University in Frankfurt/Main, Germany. He already has got some other awards, as in 2005 the Carl-Wilhelm-Scheele-Award of the German Pharmaceutical Society as well as in 2007 the Rudolf-Buchheim-Award of the German Society for Clinical and Experimental Pharmacology and Toxicology. He is author or co-author of more than 30 high quality papers, many of them dealing with molecular mechanisms of action of natural compounds as well as relevant bioassays regarding endothelium pharmacology.

At the opening ceremony of the GA-Congress on Monday morning Robert Fürst gave an award lecture entitled "Novel extra-cardiac actions of the Crataegus extract WS 1442: Functional and molecular insights".

## Travel grant winners for GA 2013 conference in Münster, Germany

GA was able to sponsor several travel grants for graduate students and a post-doctoral fellow to attend the 61<sup>st</sup> International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research, Sept. 01-05, 2013 in Münster, Germany. The GA travel grant committee 2013 consisted of Hebba Abdel Aziz, Elke Heiss and Judith Rollinger. The committee had received a total of 12 applications and finally eight travel grants could

be awarded on a competitive basis from among the accepted abstracts. The GA congratulates the following recipients:

### PhD Student Level

Hilal Baradakci, Turkey	800 €
Monica Gabriela Mielke, Germany	400 €
Ismail O. Ishola, Nigeria	2000 €
Eirini Kouloura, Greece	800 €

Sarah Öttl, Austria	700 €
Nkeoma Nkasi Okoye, Nigeria	2000 €
Matthias Onyebuchi Agbo, Nigeria	2000 €

### Postdoctoral Fellow Level (for Young Researchers from developing countries)

Amira Motaal, Egypt	1500 €
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## 8<sup>th</sup> Young Researchers Workshop Awardees

The Young Researchers Workshop on Sunday afternoon at the 61<sup>st</sup> International Congress and Annual Meeting of GA, Sept. 01–05, 2013 in Münster, Germany was chaired by Prof. Deniz Tasdemir (National University of Ireland, Galway) and Prof. Anna Rita Bilia (University of Florence). In the closing ceremony of the con-

gress six awards (sponsored by Bionorica SE) for best short lectures at the Young Researchers Workshop were given to:

- Sarah K. Öttl, University of Innsbruck, Austria
- Diana C. Rueda, University of Basel, Switzerland
- Ludivine Riffault, University of d'Orleans, France
- Karmen Kapp, University of Helsinki, Finland
- Steffen Neumann, Philipps University Marburg, Germany
- Rebamang A. Mosa, University of Zululand, South Africa



## GA 2013 Poster Awards

At the 61<sup>st</sup> International Congress and Annual Meeting of GA, Sept. 01–05, 2013 in Münster, Germany, out of a great number of nearly 600 posters 6 were nominated to be outstanding and poster awards were presented on a highly competitive basis to the following author groups for the following posters:

C.E. Mair, U. Grienke, S. von Grafenstein, J. Kirchmair, K.R. Liedl, M. Schmidtke, J.M. Rollinger: Bioprospecting diverse plant species for antiviral agents against upper respiratory tract infections.

- L.L. Orduz-Diaz, D.A. Barrera-Adame, E.D. Coy-Barrera: 8-O-4'-connected neolignans as antileishmanial agents: an exploration by molecular docking.
- B. Paulsen, K. Innerjerdigen, A.M. Fjellestad, M. Cheung, A. Denou, D. Diallo: Plants used in Mali against malaria and their content of polysaccharides with immunomodulatory properties.
- C.C. Costa, F. Müller-Uri, W. Kreis: VEP1-encoded enone 1,4-reductases from Brassicaceae: cloning, expression, molecular phylogeny and modelling.

- J.M. Schmuch, K. Köller, S. Becker, A. Podbielski, A. Hensel: Proanthocyanidin-enriched extract of *Rumex acetosa* L. inhibits the *in vitro* adhesion of *Porphyromonas gingivalis* to KB cells and decreases the biofilm formation.
- O. Potterat, M. Gerodetti, M. Oufir, K. Fürer, M. Mennet-von Eiff, R. Brenneisen, U. von Mandach, M. Hamburger: Quantification by UPLC-MRM ESI-MS of bufadienolides in *Bryophyllum pinnatum* leaves and manufactured products.





## Lecture of Fahimeh Moradi-Afrapoli, winner of the Dr. Willmar Schwabe Research Scholarship for Young Scientists 2012 at ICNPR 2012



The last year's winner of the Dr. Willmar Schwabe Research Scholarship for Young Scientists 2012 at the New York Joint-Meeting was Ms. Moradi-Afrapoli, Mazandaran University of Medical Sciences, Iran (see Newsletter 2012-2). After 6 month work at the Institute of Pharmaceutical Biology (Prof. Matthias Hamburger), De-

partment of Pharmaceutical Sciences, University of Basel, this year in Münster she presented the results of her investigations in a lecture on *in vitro* transport studies with kaempferol and its anxiolytic metabolite 4-hydroxyphenylacetic acid (4-HPAA) in human cell models. She could show that kaempferol can cross both, in-

testinal and blood-brain barriers with moderate permeability, whereas 4-HPAA only showed low permeability in both barrier models. As i.p. injection of 4-HPAA in mice induces anxiolytic activity, eventually already small amounts of 4-HPAA entering the brain are sufficient for bioactivity.

## Announcement of the Egon-Stahl-Award in Gold 2014 by the Society for Medicinal Plant and Natural Product Research



The Egon-Stahl-Award in Gold is the highest scientific honour of the Society for Medicinal Plant and Natural Product Research (GA). It can be awarded every third year.

The Egon-Stahl-Award in Gold acknowledges the outstanding scientific lifetime oeuvre of an eminent scientist who has been closely attached to Pharmaceutical Biology (Pharmacognosy, Chemistry of Natural Products) throughout his scientific career.

The prize will be awarded during the 62<sup>nd</sup> International Congress and Annual Meeting of GA in Guimarães (Portugal), 31 August – 5 September 2014. The award winner will be invited to present a lecture.

Nominations can be made by all regular members of the Society for Medicinal

Plant and Natural Product Research. Nominations of oneself can not be considered. Nominations should be submitted to the President of the Society for Medicinal Plant and Natural Product Research.

The following must be enclosed with the nomination:

- a detailed appreciation of the scientific oeuvre of the proposed candidate
- names of experts who could be consulted

The Executive Council of the Society for Medicinal Plant and Natural Product Research will give expert advice about the nominations submitted and make a selection. The President is free to consult further experts.

The Egon-Stahl-Award in Gold is endowed with € 5.000.

All documents have to be submitted in electronic form (as CD in 5 copies). **Deadline** for submission is **May 1, 2014**.

December 2013

Prof. Dr. Wolfgang Blaschek,  
GA President

Documents are to be sent to:

Prof. Dr. Matthias Hamburger, Institute of Pharmaceutical Biology, Department of Pharmaceutical Sciences, University of Basel, Klingelbergstraße 50, CH-4056 Basel, Switzerland, e-mail: matthias.hamburger@unibas.ch

## Announcement of the Egon-Stahl-Award in Bronze 2014 by the Society for Medicinal Plant and Natural Product Research



On the occasion of his 60<sup>th</sup> birthday, 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 fields of Pharmacognosy (Pharmaceutical Biology) and Analytical Phytochemistry.

As a rule, the bronze medal and an award of € 1,500 will be given to young scholars up to the age of about thirty whose thesis was of outstanding quality. The prize will be awarded during the 62<sup>nd</sup> International Congress and Annual Meeting of GA in Guimarães (Portugal), 31 August – 5 September 2014.

Members of the Society for Medicinal Plant and Natural Product Research (GA) are invited to submit nominations for candidates together with supporting data. Nominations of oneself cannot be considered.

A nomination for the prize has to include a curriculum vitae incorporating the candidate's scientific career, an index on her/his publications, and reprints of several of her/his more recent publications. All publications can be taken into consideration.

All documents have to be submitted in electronic form (as CD in 5 copies). **Deadline** for submission is **March 15, 2014**.

November 2013

Prof. Dr. Wolfgang Blaschek,  
GA President

Documents to are be sent to:

Prof. Dr. Matthias Hamburger, Institute of Pharmaceutical Biology, Department of Pharmaceutical Sciences, University of Basel, Klingelbergstraße 50, CH-4056 Basel, Switzerland, e-mail: matthias.hamburger@unibas.ch

# Announcement of the Dr. Willmar Schwabe Award 2014 by the Society for Medicinal Plant and Natural Product Research

The Dr. Willmar Schwabe Award acknowledges outstanding results of pharmacological and/or clinical research in the field of herbal medicinal products. The award is endowed with 10,000 € by the endowing sponsor Dr. Willmar Schwabe GmbH, Karlsruhe (Germany).

The aim of the award is to motivate younger scientists (preferably 40 years or younger) to resolve phytotherapeutic and phytopharmaceutical problems in an interdisciplinary approach, in order to support the evidence-based use of natural products.

Research groups and scientists of universities and other non-commercial scientific institutions are entitled to apply. Scientific applications to be nominated (consisting of up to three relevant scientific publications on a specific topic which have been published during the last three years, the CV(s) and the list(s) of publications) must be submitted to the president of GA in electronic form (as CD-Rs in five copies) until **April 5, 2014**.

The Dr. Willmar Schwabe Award will be bestowed during the 62<sup>nd</sup> International Congress and Annual Meeting of GA in Guimarães (Portugal), 31 August – 5 Sep-

tember 2014. The award winner(s) will present their findings in a lecture at the congress.

December 2013  
Prof. Dr. Wolfgang Blaschek,  
GA President

Documents are to be sent to:  
Prof. Dr. Matthias Hamburger, Institute of Pharmaceutical Biology, Department of Pharmaceutical Sciences, University of Basel, Klingelbergstraße 50, CH-4056 Basel, Switzerland, e-mail: matthias.hamburger@unibas.ch

## Announcement of the Dr. Willmar Schwabe Research Scholarship for Young Scientists by the Society for Medicinal Plant and Natural Product Research

**Awarding Institution:** Society for Medicinal Plant and Natural Product Research (GA)

**Endowing Sponsor:** Dr. Willmar Schwabe GmbH & Co. KG, Karlsruhe (Germany)

**Endowment:** 10,000 EURO

**Frequency:** upon announcement

### Objective

The aim of the **Dr. Willmar Schwabe Research Scholarship for Young Scientists** is to support research of young scientists, especially from developing countries in leading research institutions. Projects focusing on pharmacological or clinical research of phytopharmaceuticals and their active substances are particularly welcome. The award is exclusively used for travelling and living costs of the awardee and not for consumables. A duration of at least 6 months is mandatory.

### Criteria for Application

- Advanced (year 2 onwards) PhD students and postdocs.
- In case of similar scientific quality of applications applicants from developing countries shall have priority.
- GA membership for at least one year prior to application, with paid fees.
- Age: preferably 30 years of age (post-docs) or younger (PhD students).
- The hosting institution states in the Letter of Acceptance that (i) it is prepared to cover the cost of consumables used for the research project, (ii) that the student will have an adequate laboratory infra-

structure and, (iii) that a tutor is assigned who will supervise the applicant during his/her stay.

### Documents for Application

- Letter of Motivation (applicant)
- Letter of Support (supervisor)
- CV and list of publications
- Project description including experimental design, time schedule and justification why the research shall be performed in the respective institution
- Letter of Acceptance (hosting institution)
- Confirmation of the host institution to cover the laboratory costs (consumables)
- Specification of costs for travelling and living

All documents have to be submitted to the president of the Society for Medicinal Plant and Natural Product Research in electronic form (as CD-Rs in 5 copies).

### Jury

The president of the Society for Medicinal Plant and Natural Product Research appoints at least 2 independent experts to evaluate the applications.

The jury will select the awardee on the basis of the expert reports.

The jury consists of the President and the Vice-presidents of the Society for Medicinal Plant and Natural Product Research, the Editor-in-Chief of *Planta Medica*, and a representative of Dr. Willmar Schwabe GmbH & Co. KG.

### Further details

The **Dr. Willmar Schwabe Research Scholarship for Young Scientists** will be bestowed in a ceremony during the 62<sup>nd</sup> International Congress and Annual Meeting of GA in Guimarães (Portugal), 31 August – 5 September 2014.

The scientific results of the project shall be presented during the next annual congress, preferably in a short lecture.

The awardee has to prepare a final report on the project supported by this grant. This report has to be signed by the head of the host institution. A copy of the signed report has to be sent to the GA president and to Dr. Willmar Schwabe GmbH & Co. KG. In case of publication of the results the award has to be mentioned in the Acknowledgement.

The **deadline** for submissions for the 2014 announcement is **March 31, 2014**.

December 2013  
Prof. Dr. Wolfgang Blaschek,  
GA President

Documents are to be sent in electronic form (as CD in 5 copies) to:  
Prof. Dr. Matthias Hamburger, Institute of Pharmaceutical Biology, Department of Pharmaceutical Sciences, University of Basel, Klingelbergstraße 50, CH-4056 Basel, Switzerland, e-mail: matthias.hamburger@unibas.ch

The Members Meeting took place during the annual congress in Münster on 3 Sept. 2013 from 6.40 – 8.00 pm. 156 GA members attended the meeting.

## 1. Approval of the Agenda

President Prof. W. Blaschek welcomed all participants. The agenda, published in the GA Newsletter 1-2013, was unanimously approved.

## 2. Approval of the Minutes of the Members Meeting

The minutes of the previous Members Meeting on 30 July 2012 in New York, published in the GA Newsletter 2-2012, were unanimously approved.

## 3. Annual reports

### 3.1 Report of the President

#### Prof. W. Blaschek

- The participation of AFERP, ASP, PSE, SIF in the GA Congress 2016 / Copenhagen was asked for at the NY Congress and all societies agreed.
- He wrote a Welcome Address for the 13<sup>th</sup> Int. Congress of Society for Ethnopharmacology Sept. 2–6, 2012, Graz, Austria.
- On 27 Sept. 2012 he met A. Hensel and T. Schmidt in Münster and discussed the program and the abstract review system for the GA-Congress 2013.
- He participated in the Shanghai Int. Conference on TCM and Natural Medicine, Oct 20–21, 2012, Shanghai, China, and presented a lecture: Medicinal and Nutritional Benefit of Seaweeds used in TCM.
- He prepared the following contributions for the GA-Newsletter 2-2012: Message from the President / Announcement of Awards (ESA Silver, BPA, Schwabe Scholarship) / Report on Award-Lectures NY: ESA Bronze (Grienke), WSA (Heiss), Schwabe Scholarship 2011 (Lesjak), Winner Schwabe Scholarship (Moradi-Afrapoli) / Report on Travel grant winners for ICNPR 2012, NY.
- He chaired the ExC-Meeting on 6 December 2012 in Vienna.
- He chaired the BoD-Meeting on 18 January 2013 in Vienna.
- He participated in the Symposium 80 Jahre Bionorica on 27 February 2013 in Berlin.
- He participated in the Phytocongress (GPT) March 7–9 2013 in Leipzig and presented a lecture: Pflanzliche Arzneimittel: Stellung u. Regulatorisches in Europa.
- On 14 March 2013 he had a telephone conference with Dr. Wenzel (Programplanerin / program planner), Dr. Schiller (Verlagsleiter / publishing manager) and Dr. Wieggers (Verlagsbereichsleiter / manager of publishing section) of

Thieme Publishers about Planta Medica Letters.

- On 23 April 2013 he attended the meeting „Zukunft Phytotherapie“ in Munich (website: <http://www.zukunft-phytotherapie.de>) in which the following institutions are involved: GA / AMT (Arbeitskreis für Mikrobiologische Therapie) / KFN (Komitee Forschung Naturmedizin) / Kooperation Phytopharmaka / BPI / BAH / Hufelandgesellschaft / Gesellschaft für Phytotherapie / Ärztesgesellschaft für Erfahrungsheilkunde / ZAEN / AG für Naturheilverfahren im Akutkrankenhaus.
- He prepared the following contributions for the GA-Newsletter 1-2013: Message from the President / Invitation to members meeting at GA-Congress Münster (incl. announcement of elections of BoD) / Announcement of the GA-Congress in Portugal / Obituary for Andrew Marston (written by Prof. Hostettmann).
- He coordinated the award juries for ESA Silver / BPA and participated in the evaluation of applicants.
- He was involved in abstract evaluation for the GA-Congress in Münster.
- He chaired the GA-ExC-Meeting on 13 June 2013 in Vienna.

### 3.2 Reports of the Vice-Presidents

#### 3.2.1 Report of Vice-President

##### Prof. B. Kopp

- She participated in the ISE meeting in Sept. 2012 in Graz as representative from GA. The symposium was successful, 400 participants attended the meeting.
- She participated in the farewell symposium for Prof. Chlodwig Franz in Vienna on 27 Sept. 2012. She handed over a glass cube in the name of GA.
- She was involved in the abstract evaluation for the GA congress in Münster.
- She acted as member of the jury for the ESA in Silver and Bionorica Phytooneering Award and participated in the evaluation of applicants.
- She participated in the 80 years Bionorica symposium on 27 Feb 2013 in Berlin
- As one of the GA representatives she was involved in programme planning of the 3. Internationaler Kongress Phytotherapie 2014, 18–21 June 2014, Winterthur, Switzerland

#### 3.2.2 Report of Vice-President

##### Prof. M. Hamburger

- He liaised with Anna Jäger for the Joint Congress in Copenhagen.

- He liaised with Alberto Dias for GA Congress 2014 in Braga.
- He was involved in the abstract evaluation for the GA Congress in Münster.

### 3.3 Report of the Secretary

#### Dr. B. Benedek

Prof. Blaschek reported on behalf of Dr. Benedek who was not participating:

- She was in charge of much correspondence.
- Members statistics: GA currently (as of 25.08.2013) has 1397 active members. 750 members pay the regular fee of 60 EUR, 582 members pay the reduced fee of 20 EUR. GA has 35 company members. 30 members are freed from membership fees: 10 thereof are Honorary Members, for 20 members the fees have been waived due to more than 40 years of GA membership.
- Prof. Blaschek thanked Dr. Benedek for her efforts.

### 3.4 Report of the Treasurer

#### Dr. B. Roether

- He reported about the current financial situation of GA:
- The total assets of GA stocks and bonds: 145,913.85 EUR (funds value: 46,530.23 EUR, cash: 99,383.62 EUR)
- The Egon Stahl fund currently amounts to 58,068 EUR (funds value: 52,000 EUR, cash: 6,068 EUR).
- The revenues in 2013 were 59,140 EUR so far (status 08/2013, budget 2013: 71,200 EUR), the expenses in 2013 were 22,689 EUR so far (status 08/2013, budget: 102,900 EUR), leading to a saldo (revenues minus expenses) of +36,451 EUR so far (status 08/2013, budget: –31,700 EUR).
- A discount for membership fees is planned: members who pay 5 years in advance shall get a discount of 10%. The advantage is the lower administration costs, disadvantages include the increased difficulty to plan the budget and no possibility of an overview about advanced payments.
- Foundation “Plants for Health”: a financial endowment is planned or has been submitted by the following companies: Schwabe (10.000 EUR), Salus Haus (5.000 EUR), WALA (2.500 EUR), Steigerwald (2.500 EUR). An amount of 30,000 EUR is planned to be submitted by the GA.
- Prof. Blaschek asked all members for financial support for the Foundation.



- Planta Medica online subscriptions: 19 members have subscribed to PM online back to 1998, 26 members back to 1953.
- Prof. E. Stahl-Biskup presented the Report of the Auditors (Prof. Dr. E. Stahl-Biskup and Dr. B. Frank). She states that expenditures and revenues are plausible and appropriate, and she expresses her compliments for a good accounting and cost awareness. She remarks that there is a tendency to a general decrease of the assets.

### 3.5 Discharge of the Executive Council

- Based on the Report of the Auditors Prof. E. Stahl-Biskup asked for the discharge of the Treasurer and the whole ExC which was accepted unanimously by the whole assembly.

### 4. Report of the Editor-in-Chief of Planta Medica Prof. L. Pieters

- The impact factor of Planta Medica is currently 2.348
- Concerning the past and present development of Planta Medica Prof. Pieters referred to the slides presented on 2. Sept. on occasion of the Anniversary Ceremony: "60 Years of Planta Medica" (Luc Pieters, Matthias Hamburger)
- On Sept. 2 at the GA-Congress in Münster he chaired the workshop "How to publish a Scientific Paper".
- The next Planta Medica Editorial Board Meeting will take place on Friday, Oct 25, 10:30–17:00 in Frankfurt at the Airport Conference Center.

### 5. Reports of the Permanent Committees (PC)

- PC "Biological and Pharmacological Activity of Natural Products" (V. Butterweck / G. Vollmer): will have a session 2014 at the GA-Congress in Guimaraes, Portugal.
- PC "Breeding and Cultivation of Medicinal Plants" (O. Kayser / I. Goehler): will have a session 2014 in at the GA-Congress in Guimaraes, Portugal. O. Kayser chaired the COST Workshop "Metabolic Pathway Engineering of Secondary Natural Products" on September 1 at the GA-Congress in Münster.
- PC "Manufacturing and Quality Control of HMPs" (C. Erdelmeier / new Co-Chair Dr. Sybille Buchwald-Werner, Vital Solutions, Germany): the Workshop "Current Aspects in Manufacturing of Herbal APIs (Extracts): GACP Regulations / GMP Implementation / Process Development" took place on September 3 at the GA-Congress in Münster.
- PC "Regulatory Affairs" (A. Vlietinck / S. Alban): the Workshop "Harmonisation of Health Claims in Europe" took place on September 1 at the GA-Congress in Münster.

- PC "Young Researchers Workshop" (J. Rollinger / D. Tasdemir / A.R. Bilia / A. Hensel / J.-L. Wolfender): the workshop took place on September 1 at the GA-Congress in Münster with 3 Impulse Lectures (S. Grienke / M. Cuendet / G. Abel) and 6 Short Lectures by young researchers.

### 6. Election of the Board of Directors

Prof. E. Stahl-Biskup acted as supervisor of elections. She informed the assembly that the elections and the nominations have been announced in the GA-Newsletter 1-2013. 156 votes cast (including 4 company authorisations) were collected. She presented the final results of the elections to the ExC after the Members Meeting.

#### 6.1 Election of the President

M. Hamburger: 142 affirmative votes

#### 6.2 Election of the two Vice-Presidents

A.R. Bilia: 143 affirmative votes  
W. Blaschek: 128 affirmative votes

#### 6.3 Election of the Treasurer

B. Roether: 149 affirmative votes

#### 6.4 Election of the Secretary

B. Benedek: 148 affirmative votes

#### 6.5 Election of the Advisory Board Regular Positions:

Rudolf Bauer: 77 affirmative votes  
Andreas Hensel: 74 affirmative votes  
Deniz Tasdemir: 65 affirmative votes  
Sandra Apers: 63 affirmative votes  
Veronika Butterweck: 57 affirmative votes  
Michael Heinrich: 57 affirmative votes

#### Junior Positions:

Christian Agyare: 69 affirmative votes  
Nikolas Fokialakis: 44 affirmative votes

### 7. Membership discount for members paying fees 5 years in advance

Members who pay membership fees 5 years in advance shall get a discount of 10% (because of lower administration costs): approval by the assembly.

### 8. Future Congresses, Symposia and Workshops

#### 8.1 Annual GA Congresses

- 2014: Univ. Minho, Guimaraes, Portugal, Aug. 31 – Sept. 5 (organiser: Prof. A. Diaz). Joint Meeting with AFERP (Prof. E. Seguin), First Announcement is available.
- 2015: Budapest, Hungary (organiser: J. Hohmann)
- 2016: Copenhagen, Denmark (Joint Meeting, organiser: A. Jäger)
- 2017: Basel, Switzerland (organiser: M. Hamburger)
- 2018: Beijing/Shanghai, China (organiser: D. Guo)
- budget / program / contracts (partially) existing

### 8.2 Future Congresses and Workshops

- Joint Symposium with the BHMA: Can Medicine be your Food? The challenging borderline between herbal medicines and botanicals. October 28, 2013, Jodrell Laboratory, Royal Botanic Gardens, Kew, London
- EACEA, Inst. Pharm. Sci. Univ. Graz: Renaissance for Garlic and other Medicinal Herbs as an opportunity for European Minorities. November 28-29, Graz, Austria
- 12<sup>th</sup> Annual Oxford International Conference on the Science of Botanicals. April 15–18, 2014, Oxford, Mississippi, USA
- Internationale Tagung „Phytotherapie 2014: Klinik und Praxis“. June 18–21, 2014, Winterthur, Switzerland
- Phytopharm 2014. July 35 (July 7–9), 2014, St. Petersburg, Russia

### 9. Miscellaneous

- M. O'Neil-Johnson suggests to promote chemistry more than is done now.
- I. Khan invites to the 2014 Meeting of the American Society of Pharmacognosy.
- M. Heinrich thanks Prof. B. Kopp for her work for GA as vice-president and president.
- It is noted that about 25% of the announced posters are not presented, but the abstracts are published in Planta Medica. It is proposed to stop publishing the abstracts before the Annual Congress, but to invite the poster authors after the Congress to submit an extended abstract. Prof. Hamburger replies that the board is aware of this situation and that a solution has to be found. Prof. Blaschek states that in the future abstracts will only be published if the author has indeed presented the poster or short lecture.
- A member from Nigeria informs that colleagues from Nigeria have been denied visa from the Nigerian Embassy. He asks if in the future a letter from the Congress organiser or from GA could be sent directly to the Embassy. Prof. Hensel as organiser of the 2013 Congress replied that an invitation letter has been sent to everybody who has requested one.
- R. Bauer remarks that the main objective of the Foundation "Plants for Health" is to support high quality („good“) science in the field of medicinal plant and natural product research.

Vienna, 25. Oct. 2013

Dr. Christoph Wawrosch



Münster castle and the GA-poster tent.

The 61<sup>st</sup> International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA) was held in Münster, Germany, from 1<sup>st</sup>–5<sup>th</sup> September 2013. The local organizers, represented by the conference chairs Prof. Andreas Hensel and Prof. Thomas J. Schmidt (Institute of Pharmaceutical Biology and Phytochemistry of the University of Münster) could receive 755 registrations from scientists from academia and industry dealing with all aspects of medicinal plant and natural product research as well as phytotherapy. This high number of participants from 58 countries from all over the world was certainly due to the very attractive scientific program which mirrored the huge diversity of medicinal plant and natural product research. All oral presentations were presented in the University's auditorium maximum and further lecture halls located in a central building near the castle of Münster. Poster presentations, as well as an exhibition of industrial companies, took place in a large tent right in front of the castle's main entrance.

The main program of the conference began already in the evening of Sunday, Sept. 1<sup>st</sup>, with an enlightening opening lecture by Prof. Alan H. Fairlamb (Dundee, U.K.) on "Natural products and drug discovery for tropical diseases". The conference was officially opened on Monday morning, Sept. 2<sup>nd</sup>, by GA president Prof. Wolfgang Blaschek (University of Kiel, Germany). During the opening ceremony, eight travel grant awards to congress participants from various countries as well as two important scientific awards were presented by GA. The Egon-Stahl-Award in silver went to Prof. Dr. Sandra Apers

(Antwerp, Belgium) for her research in the areas of isolation, structure elucidation and biological activity of natural products as well as the development of innovative methods for the analysis and quality control of herbal medicinal preparations. The Bionorica Phytoneering Award 2013 was given to Prof. Dr. Robert Fürst (Frankfurt, Germany) for his outstanding investigations of the molecular mechanisms of plant metabolites and extracts to influence inflammatory processes, angiogenesis and endothelial interactions. Both awardees then presented their results in outstanding lectures. After the opening ceremony, a special „birthday ceremony“ acknowledged the 60<sup>th</sup> anniversary of the journal *Planta Medica*, GA's official scientific publishing organ. It was organized by Prof. Luc Pieters (Editor-in-Chief), Prof. Matthias Hamburger (Review Editor) and Dr. Regina Wenzel (Thieme Publishers). The opportunity was taken to give an overview on *Planta Medica*'s history as well as to acknowledge the most innovative *Planta Medica* publication of the year 2012 by an award presented by Thieme Publishers and GA for the first time. Awardee Prof. Susan Murch (University of British Columbia, Canada) summarized her publication (see *Planta Medica* 2012; 78: 630–640) in a short presentation (see *Planta Medica* 2012; 78: 630–640).

The last year's winner of the Dr. Willmar Schwabe Research Scholarship for Young Scientists at the New York Joint-Meeting was Ms. Moradi-Afrapoli, Iran. After having worked for half a year at the Institute of Pharmaceutical Biology at the University of Basel, Switzerland, this year in Münster she presented the results of her investigations in a lecture on *in vitro* transport stud-

ies with kaempferol and its anxiolytic metabolite 4-HPAA in human cell models.

The scientific program, made up of 12 main topic sections, comprised nine plenary lectures held by distinguished leading scientists, 79 excellent short lecture contributions and 25 oral presentations during 4 workshops, as well as about 600 poster presentations. The ethnomedicine of the Amazonian region as well as that of the tropical and subtropical regions in Africa represented some main topics. They were presented in plenary lectures by Prof. Elaine Elisabetsky (Porto Alegre, Brazil), by Prof. Johannes van Staden (Scottsville, South Africa) and by Prof. Sami A. Khalid (Omdurman, Sudan). Another topic was computational methods in natural products chemistry, hyphenated analytical techniques and target fishing. Prof. Ronald J. Quinn (Brisbane, Australia), a pioneer in the application of modeling methods in natural product based drug research, gave an overview on his experiences with computational approaches covering the assessment of drug-like and lead-like properties of natural products. Dr. Jandirk Sendker (Münster, Germany) gave a highlight lecture on the application of multivariate statistical tools to large sets of analytical data with the goal of identifying new biologically active compounds in senescent plant material. Concerning skin-active natural products, Prof. Tony Rawlings (Northwich, U.K.) in his plenary lecture gave an overview on such preparations and focused on their influences on biochemical processes in the skin related to anti-aging mechanisms. A hot topic in days of malnutrition is that of dietary fibers and their health-promoting and protective





The congress GA 2013 organisation team.

activity. The plenary lecture by Prof. Tony Bacic (Melbourne, Australia) focused on such soluble dietary fiber consisting of various glucans and arabinoxylans. He emphasized their health promoting and protective effects, especially against colon cancer, development of type II-diabetes and cardiovascular disorders; and also highlighted attempts to enhance the content of these valuable constituents in wheat, barley and rice. Herbal medicinal products require proper pharmacological characterization including a clear proof of safety and efficacy. Prof. Veronika Butterweck (Muttenz, Switzerland) demonstrated in her interesting plenary lecture that activ-

ity claims for herbal products must not be made solely on the basis of *in vitro* data but require clear evidence for an *in vitro-in vivo* correlation, which quite often is missing. She discussed requirements for proper pharmacological studies of plant extracts and also showed that such investigations, if properly conducted, can be a very challenging task. In addition to the main topics highlighted here, a huge number of oral and poster presentations of high quality were given in other conference sessions on "Natural product chemistry", "Plant phenolics", "Quality control methods for medicinal plants", "Herbal products in animal healthcare", "Metabolic

pathway engineering" and other fields of research. Abstracts of all contributions were published in a special issue of *Planta Medica* (Vol. 79 (13), 1097–1288, 2013; <https://www.thieme-connect.de/ejournals/issue/10.1055/s-003-25532>).

Furthermore a number of workshops related to important aspects of medicinal plant and natural product research were attended by many interested visitors. On Sunday afternoon GA's Young Researchers Workshop attracted a large audience of younger colleagues who were inspired by three excellent impulse lectures held by Ulrike Grienke (Innsbruck, Austria), Muriel Cundet (Lausanne, Switzerland) and Gudrun Abel (Neumarkt, Germany) followed by six short lectures of young colleagues. Workshops of GA's permanent committees on Regulatory Affairs and on Manufacturing of Herbal Medicinal Preparations gave important insights into the current situation of phytopharmaceuticals. For the first time, GA also hosted a workshop related to an EU / COST program on metabolic pathway engineering of secondary natural products. Quite successful was also a workshop entitled "Industry meets academia" where perspectives for interactions, networking and cooperations between university researchers and pharmaceutical manufacturers were highlighted and discussed, as well as a workshop on a research network Natural Products against Neglected Diseases.



Main Lecture Hall for exciting talks and discussions.

The successful congress was summarized by W. Blaschek and A. Hensel during the closing ceremony on the late afternoon of Wednesday, Sept. 4<sup>th</sup>. During this ceremony, also six GA awards were presented to participants of the "Young researcher



workshop” along with six awards for outstanding posters. The annual congress of next year could be announced to take place from August 31 to September 04, 2014, in the north of Portugal, at the University Minho in Guimarães, where it will be organized by Alberto Dias.

Many thanks to the whole team in Münster for organizing an informative scientific congress and to all participants for their excellent scientific contributions which made this congress an event many of us will remember as a highlight for a long time.

Prof. Dr. Wolfgang Blaschek  
(GA President)

Pictures and impressions from the conference and the participants and further information on the conference can be downloaded from <http://www.ga2013.org/>



Chairmen of GA 2013: Prof. Dr. Thomas Schmidt and Prof. Dr. Andreas Hensel.

## COST-Workshop and Presymposium to GA 2013 Conference in Münster, Germany: Challenges And Limitations in Metabolic Pathway Engineering of Secondary Natural Products

To highlight modern aspects of biotechnology and biochemistry bearing upon medicinal plant research, a featured presymposium to the 61<sup>st</sup> International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA) was held, introducing the objectives and endeavors of the COST Action FA1006, *PlantEngine*: Plant Metabolic Engineering for High Value Products. The key-note speakers: Rob Schuurink, University of Amsterdam, Michal Jasinski, Polish Academy of Science, and Kirsi-Marja Oksman-Caldentey, VTT Helsinki expounded upon the latest research devel-

opments concerning the aspects of terpenoid biosynthesis regulation in trichomes, intracellular transport processes and precursor trafficking, as well as the complex mechanisms fostering the biosynthesis of pharmaceutically relevant alkaloids. The featured scientific talks spurred intensive discussions with the audience members, clearly indicating a considerable interest in the multidisciplinary aspects of research fields represented by the *PlantEngine* Action. The final roundtable discussion led into a vibrant debate on further implementation of plant biotechnology in future Society activities. Many

arguments were controversially discussed among the speakers and Congress participants, resulting in the definition of specific pivotal issues: the need for increased industry involvement, focus not only on plants but also on sustainable supply of natural products, and ethical aspects of genetically modified plants.

The symposium organizers, Prof. Oliver Kayser and Prof. Heribert Warzecha express their gratitude to the GA for the opportunity to introduce and highlight *PlantEngine* activities.

Prof. Dr. O. Kayser and coworkers

# GA-Workshop during GA 2013 Conference in Münster, Germany: Traditional herbal medicinal products and food supplements – The issue of health claims for botanicals remains unsolved

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During the Annual Congress of GA in Münster/Germany in the beginning of September 2013 a specific workshop of the permanent Committee “Regulatory Affairs” took place which was chaired by Professor Susanne Alban, Kiel, and Professor Arnold Vlietinck, Antwerp. In presentations given by Dr. Patrick Coppens, Brussels, Professor Vittorio Silano, Rome, and Professor Robert Anton, Strasbourg, the regulatory framework was described including the unsolved problem of the assessment of health claims of food supplements of herbal origin, the so-called botanicals, and proposals for a future procedure were made.

At least since publication of a discussion paper of the European Commission in summer 2012 an intensive debate had arisen on how to handle the assessment of health claims for botanicals in future. While the first option consists of maintaining the existing assessment criteria – with the consequence of almost no positive decisions of the European Food Safety Authority (EFSA) – a second option proposes a change of the legal framework including a potential new approach. Such a solution would be similar to the situation of traditional herbal medicinal products which may demonstrate their long-term use and experience in case sufficient clinical evi-

dence is missing. At present EFSA has put on hold further assessment of botanical health claims since almost no positive decision on the food industry’s applications for claims could be achieved.

In the following, the Herbal Medicinal Products Committee’s (HMPC’s) vice-chairperson Professor Ioanna Chinou, London and Athens, reported on the assessment criteria established by Directive 2004/24/EC particularly for traditional herbal medicinal products and presented examples of the successful work of the HMPC on far more than 100 Community Herbal Monographs.

In an intensive and partly controversial discussion which focused on the borderline between traditional herbal medicinal products and food supplements of botanical origin, the pharmacological effects of medicinal products compared to the physiological effects of food supplements were pointed out as the main criterion for differentiation. In addition, quality issues for food supplements were addressed which were considered to increase in future and for which assessment criteria according to the European Pharmacopoeia were proposed. Furthermore, safety plays an important role as can be shown by numerous criteria laid down in various EFSA docu-

ments. It was stated that mechanisms of control do exist for food supplements as well, however, they are not applicable prior to their market access and not in the same extent as compared to medicinal products.

An interesting discussion arose on a French proposal to accept the same traditional uses of herbal medicinal products (e.g. those granted by the HMPC and listed in their monographs) also for food supplements. However, in this workshop some strong arguments were presented against this suggestion (corresponding to the so-called BELFRIT initiative from Belgium, France and Italy), mainly because for traditionally used medicinal plants a tradition as food does not exist. Furthermore the evidence of use would normally be based on administration in ill patients and/or pharmacological and clinical data typically required for medicinal products. It was argued that for these reasons a transfer of “traditional” indications to health claims for botanicals seems not to be realistic. As a result of the discussion it was concluded that due to the complex situation further discussions are required, and a short-term solution cannot be expected.

Dr. Barbara Steinhoff  
Email: steinhoff@phytotherapie.de

# Workshop during GA 2013 Conference in Münster, Germany: Animal healthcare and veterinary medicine leads to a GA-Networking group

Per worldwide human being about 15 “livestock beings” (more than two thirds of them are poultry individuals but also 0.3 small ruminants, 0.2 cattle and 0.15 pigs; FAO, 2013) and, for sure, a lot of companion animals are living on our planet. Keeping livestock healthy and productive will be one of THE challenges of the next decades.

Since a couple of years, a group of veterinarians from the Netherlands, Germany and Switzerland (Anette van der Aa, Cäcilia Brendieck-Worm, Maria Groot, Sabine Vollstedt and Michael Walkenhorst) intended to come together with researchers from all over the world which are involved in research regarding medicinal plants and natural products in animal healthcare and veterinary medicine to start continuous networking regarding this subject. And it was great to be able to get Professor Chlodwig Franz from Austria and Prof. Johanna Fink-Gremmels on board, too. High quality research and scientific publications regarding “herbal animal health” are urgently needed. And lucky for us- the GA as a longstanding scientific organization was willing to add “medicinal plant products and animal health care” as one of her aims. Thanks the great enthusiasm of Professor Andreas Hensel “Animal Healthcare and Veterinary Medicine” was a main topic within the 61<sup>th</sup> International Congress and Annual Meeting of the GA in Münster. We were overjoyed to have 6 oral presentations and 25 posters from 12 countries of 4 continents.

The workshop itself took place at Münster University in the evening of September 2<sup>th</sup>. Around 60 interested scientists participated. Professor Johanna Fink Gremmels, Head of the Pharmacology and Toxicology at the Veterinary Faculty in Utrecht, Netherlands and President of the European Association for Veterinary Pharmacology and Toxicology started with a long-sighted and interdisciplinary speech about “One world – one health”. Her speech “Herbal medicinal products in animal healthcare and veterinary medicine – an option to reduce risks in human health?” highlighted current problems in veterinary medicine based with the regards to the use of antimicrobials and the rising numbers of drug resistant bacterial strains. Medicinal plants and natural products with their wide spectrum of metabolites are showing a high potential to solve these challenges. But to tap the full potential some regulatory basic requirements have to be managed.



Professor Chlodwig Franz from the Institute of Animal Nutrition and Functional Plant Compounds of the university of veterinary medicine in Vienna who already organized a couple of meetings regarding animal healthcare issues before – the last one was the HERBAN Congress which was associated with the GA-Congress in Antalya 2011 – summarized research results in his lecture: “Herbal medicinal products in animal healthcare and veterinary medicine – research highlights of the last decades”. He also pointed out that economic factors often influence the practical application that could be gained for research in to plant derived product.

After these two impulse lectures Maria Groot, Sam de Snoek, Kobus Eloff, Olatunde Ajagbonna and Michael Walkenhorst gave a quick overview about recent research activities in the Netherlands, United States of Amerika, South Africa, Nigeria and Switzerland. An active and creative discussion was started and continued – for another 3 hours – in the local gastronomy.

From this kick-off meeting a new **Networking group** has been started in October 2013. The group currently has 44 members from 15 countries and is open to all interested scientists. The network aims to spread and exchange scientific information regarding medicinal plants and natural

products in animal healthcare and veterinary medicine. A short summary of the aims:

1. To keep people up to date about scientific events
2. To give people the chance to spread their own research
3. To send around interesting articles and requests regarding scientific literature
4. To offer people the option to get in personal contact among each other

This includes i.e. veterinary phytopharmacology and ethnoveterinary medicine, as well as clinical applications of natural products, herbal drug materials and plant derived feeding additives in animals. The network want to encourage our members to distribute scientific information and to stimulate intra- and interdisciplinary scientific exchange.

About every 6 months members will be informed about upcoming meetings and congresses and new scientific publications. Please send all interesting information to [an.vanderaaga@gmail.com](mailto:an.vanderaaga@gmail.com).

Dr. Walkenhorst  
Anette van der Aa



# Announcement of the 62<sup>nd</sup> International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA)

## Invitation to the Congress and Annual Meeting of GA

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 congress. GA 2014 is a forum for the presentation and discussion of the latest research in the fields of phytochemistry, analytics, pharmacology and clinical applications. The conference will provide a platform for networking between academia and industry. GA 2014 has been endorsed by the Association Francophone pour l'Enseignement et la Recherche en Pharmacognosie (AFERP).

The Congress will be held at the University of Minho, Azurém Campus (<http://www.uminho.pt/en>), which is located in close vicinity to the medieval city centre of Guimarães, a UNESCO World Heritage Site. The historical city of Guimarães (see also <http://www.guimaraesturismo.com/>) is located in Northern Portugal. The dynamic and colorful Minho Region is famous for its landscape and vineyards where the unique "Vinho Verde" wine is produced. The University of Minho is a leading university in Portugal and offers an excellent setting for the Congress.

Plenary lectures by leading scientists, and several workshops will provide insights into topical aspects of medicinal plant and natural product research.

Apart from the scientific program, a stimulating and diverse social program will be proposed. This will include excursions to the National Park Peneda-Gerês and Esposende, with its wild beautiful coastal landscapes and unique biodiversity, and to the Douro Valley with its famous terraced vineyards. Guided visits to the cities of Porto and Guimarães, both classified as World Heritage Sites by UNESCO, are also planned.

### Main Scientific Topics:

- Clinical phytomedicine
- Nanotechnology and drug delivery
- Natural compounds as leads
- Natural products from fungi and algae
- Nutritional phytochemicals
- Medicinal plants and bioeconomy
- Metabolomics
- Plant molecular farming

Scientific contributions to other topics related to medicinal plant and natural product research are welcome.

### Plenary Speakers (confirmed)

Jean-Luc Wolfender (Geneva, CH)  
*Metabolomics as established tool in natural product research: Opportunities in phy-*



*tochemistry / perspectives in pharmacognosy.*

Gabriele M. König (Bonn, DE)  
*The secondary metabolome of marine-derived microorganisms*

Merlin Willcox (Oxford, UK)  
*Clinical trials of herbal medicines: lessons learned and future priorities*

Massimo Fresta, (Catanzaro, IT)  
*Pharmaceutical Nanotechnology meets natural products*

Stefan Schillberg (Aachen, DE)  
*Molecular Farming – production of pharmaceuticals in plants and plant cells*

Nunziatina de Tomasi (Salerno, IT)  
*Plant-Inspired Drug Discovery: new strategies for new leads*

Tomas Barberan (Murcia, ES)  
*Interaction of polyphenols with gut microbiota: Role in human health*

João Laranjinha (Coimbra, PT)  
*An alternative pathway to the health benefits of dietary polyphenols: the nitrate-nitrite-nitric oxide pathway in the gut*

Cesar Fraga (Buenos Aires, AR)  
*Flavonols and vascular function: antihypertensive, anti-inflammatory, and antioxidant actions in experimental animals*

### AFERP Speakers and topics (confirmed)

Young Choi (Leiden, NL)  
*Metabolomics and NADES*

Olivier Thomas (Nice, FR)  
*Marine natural products*

Pierre Champy (Paris, FR)  
*Toxicity of Annonaceae*

Sophie Tomasi, (Rennes, FR)  
*Bioactive compounds from lichens*

### Workshops

- 8<sup>th</sup> Young Researchers Workshop
- Workshop: Regulatory Affairs on Herbal Medicinal Products
- Workshop: Breeding and cultivation of Medicinal Plants
- Workshop: Biological and Pharmacological Activity of Natural Products

### Call for Papers

We invite submission of abstracts for short lectures and posters.

Scientific contributions are subject to a review process.

The abstracts of all contributions presented at the conference will later be published in a Special Issue of *Planta Medica*. Abstract submission will be open starting February 1, 2014, via <http://ga2014.bio.uminho.pt/>

Submission of abstracts requires prior registration of at least one author. Registration also will start on February 1, 2014.

### Travelling to Guimarães and Accommodation

Guimarães is easily accessible by highway or railway. It is located 50 km from Porto, and linked to main Portuguese cities by train or express buses.

The nearest airport is Oporto International Airport. There are several regular and low cost airlines flying to Oporto.

Guimarães can also be reached via Vigo (Spain) airport or Lisboa airport.

Accommodation is provided by several hotels in Guimarães. Alternatively, participants may consider accommodations in the city of Braga (located 17 km from Guimarães). Public bus and train services link the two cities.

Cheap accommodation in student residences (in total of 400 beds) is available on the Azurém Campus, Guimarães, in close vicinity to the conference venue.

#### Official Language

The official language of the congress will be English. There will be no access to simultaneous translation into other languages.

#### Local Organizing Committee

Alberto Dias (Chair)  
Ana Cunha, Andreia Gomes, Cristina Pereira-Wilson, Cristóvão Lima, Franklin Gregory, Hernâni Gerós, Isabel Mina, Maria João Sousa, Olga Coutinho, Rui Oliveira

#### Congress Secretariat

All correspondence concerning the congress should be addressed to:  
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Webpage: <http://ga2014.bio.uminho.pt/>

## Retirement of Prof. Dr. Karen Nieber

On 21. November 2013 an academic celebration was organized at the University of Leipzig, Germany, for the occasion of the retirement of Professor Dr. Karen Nieber. Karen Nieber, long standing member of GA, has been a member of the Faculty of Life Sciences, Pharmacy and Psychology since 1995 and was responsible for research and teaching of pharmacology. She will be remembered by all colleagues, graduate and undergraduate students as a genial scientist, and a helpful mentor to students, both those who aspired to excel-

lence and those whose aspiration was mainly to graduate. Her numerous papers in a variety of journals will bear witness to her imaginativeness and acumen. Special emphasis in her research was on the pharmacology of complex plant extracts and natural products. All colleagues wish Karen Nieber many long years in the best health and enormous power for new projects.

Andreas Hensel



## New Books

Rainer Scheer, Susanne Alban, Hans Becker, Wolfgang Blaschek, Fritz H. Kemper, Wolfgang Kreis, Harald Matthes, Heinz Schilcher, Rainer Stange (Eds.):  
*Die Mistel in der Tumorthherapie 3 – Aktueller Stand der Forschung und klinische Anwendung*, 502 pages, color illustration, ISBN 978-3-86864-032-8, Essen 2013, 39,- €

The international and interdisciplinary conferences on "Mistletoe in Tumor Therapy" have been held every four years since 1995. At the fifth conference in November

2011, participants presented results from various areas of research (biology, pharmacology, preclinical and clinical research) as well as experience-based therapeutic knowledge. New to this meeting was the focus on a particular tumor entity, the pancreatic carcinoma.

The conferences are a forum for scientists and physicians with a variety of specializations and therapeutic approaches, for manufacturers of mistletoe products and representatives of public institutions involved in registration and licencing procedures. Each conference has produced its

own topics and results. The various publications resulting from the conferences can thus be seen as references and tools for everyday medical practice. Oncology needs interdisciplinary approaches yielding results which meet patients' high expectations for help and advice. The book's main language is German, but all abstracts and some contributions are in English.



# EU supports research on the discovery of innovative cosmetics from Mediterranean and alpine plant biodiversity



The discovery and development of innovative products in the area of cosmeceuticals originating from European natural resources is the main aim of an EU funded project with the acronym **NATPROTEC** (FP7-PEOPLE-IAPP-2010 Marie Curie Actions). The project being now in the second year of its implementation has a duration of four years and a total budget of 2.2 M €. Under the coordination of **Prof. Leandros Skaltsounis**, who is Professor of Pharmacognosy and Natural Products Chemistry in the Faculty of Pharmacy (University of Athens, Greece), the consortium brings together experts who are individually considered as world leaders in their respective areas:

Four academic entities: **University of Athens** (Greece), **University of Geneva** (Switzerland), **University of Innsbruck** (Austria) and **University of Reims Champagne-Ardenne** (France), with documented high quality research activity in the field of natural products, bioprospection, phytochemistry and biology.

Four industrial partners: **Rousselet Centrifugation SA – Kromaton** (France), internationally leader in Centrifugal Partition Chromatography technologies, **KORRES SA** (Greece), recognized for its expertise in natural cosmetics, **Bionorica Reserach GmbH** (Austria), specialized in exploitation of plant derived natural products and **CAMAG** (Switzerland), renowned worldwide for its expertise in High Performance Thin Layer Chromatography.

The scientific concept of **NATPROTEC** involves the discovery of bioactive natural products (NPs) originating from the Mediterranean and Alpine biodiversity by using emerging and environmentally friendly technologies. A structurally diverse virtual database of natural compounds was initially created comprising about 1200 compounds from already existing chemical libraries of the consortium. The rational and targeted selection of the most promising natural sources/plants has been achieved by exploiting modern high throughput platforms, under the approach of reverse pharmacognosy. Computer-guided approaches have been performed against tyrosinase and histone deacetylase (HDAC) for a fast identification of bioactive compounds to be tested in *in vitro* assays. In parallel, the classical Pharmacognosy approach, based on traditional knowledge and literature, was followed. According to the results so far, a total of ~300 plant species were collected and extracted producing ~600 extracts. A broad spectrum of bioassays was elaborated for the *in vitro* evaluation of multiple skin protective effects (DPPH, ABTS, ORAC, ALP, QR induction, HDAC activity). The evaluation of their anti-ageing properties (inhibition of elastase, hyaluronidase and collagenase activity) and their anti-hyperpigmentation activity (inhibition of tyrosinase activity) is in progress. The most promising extracts (~20) will be micro-fractionated and resubmitted to biological evaluation. Advanced analytical approaches and techniques (HRMS<sup>n</sup>, cap-, micro-, LC-SPE-NMR, LC-HR-MS<sup>n</sup>, CPE/CPC-NMR) will be used for the bioactivity-oriented isolation

and structure elucidation of the active constituents and/or extracts. The physico-chemical and passive permeation properties of the pure compounds will be evaluated while quantitative metabolomic analyses for characterizing the physiological response to pure compounds will be performed aiming to the quality assessment of the lead products. Attention will be given to the selection of the most suitable source of biomaterial in terms of biological activity and the metabolite profile. Finally emerging “green” technologies (SFE-CO<sub>2</sub>, SWE, ART, CPE using bio-based solvents) will be applied for a pilot scale production of the final lead products.

The main goal and the respective objectives of the **NATPROTEC** project is being implemented in the context of an extensive and balanced scheme of exchanges and recruitments of researchers, between industrial and academic partners. Within this frame, core scientific knowledge and cosmeceutical agents are expected to be produced creating valuable synergies. The transfer of knowledge will significantly increase the research quality, as well as the overall RTD capability and competitiveness of all participants. **NATPROTEC** aspires to comprise a successful model of an efficient, long-lasting collaboration between Industry and Academia for sustainable exploitation of existing know-how and produced knowledge.

For further information and communication with the consortium please visit the website [www.natprotec.eu](http://www.natprotec.eu)

Prof. Dr. Nikolas Fokialakis, Athens



# HORIZON 2020: NEW TOOL OF EU TO BOOST EUROPEAN RESEARCH AND INNOVATION



**Horizon 2020**, the EU's next programme for research and innovation, will run from 2014 to 2020 with a budget of nearly EUR 80 billion (current prices – adjusted for inflation). It replaces the Seventh Framework Programme for Research (FP7), which ran from 2007 to 2013 with a budget of around EUR 55 billion. **Horizon 2020** is the biggest EU research programme yet, and one of the biggest publicly funded worldwide. It is also one of only very few programmes in the next EU budget to see a strong increase in funding – a nearly 30% jump in real terms over the current Seventh Framework Programme.

The proposed support for research and innovation under **Horizon 2020** will:

- Strengthen the EU's position in science with a dedicated budget of € 24 341 million<sup>1</sup>. This will provide a boost to top-level research in Europe, including the very successful European Research Council (ERC).

- Strengthen industrial leadership in innovation € 17 015 million<sup>1</sup>. This includes major investment in key technologies, greater access to capital and support for SMEs.
- Provide € 30 956 million<sup>1</sup> to help address major concerns shared by all Europeans such as climate change, developing sustainable transport and mobility, making renewable energy more affordable, ensuring food safety and security, or coping with the challenge of an ageing population

Other key elements of **Horizon 2020** are:

- Increased funding for the European Research Council, already one of the world's premier frontier-research funding agencies.
- Innovative public-private partnerships in areas such as new medicines, greener aircraft technologies and electronics.
- Investment in Key Enabling Technologies (KETs) such as photonics, nanotechnologies and biotechnology.

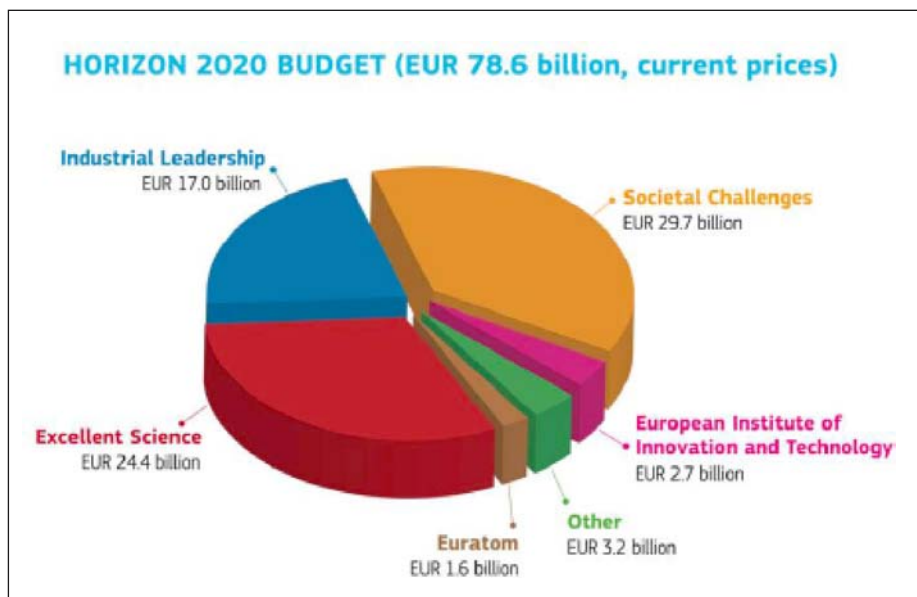
- A challenge-based approach to key issues facing societies, such as health-care, sustainable agriculture, smarter and greener transport, and climate change.
- A renewed focus on widening participation in less well-performing EU countries, including better synergies with European Structural and Investment Funds.
- A dedicated SME Instrument, and a "Fast Track to Innovation" pilot scheme to speed up the time from idea to market, and to increase the participation of industry, SMEs and first time applicants in Horizon 2020.
- A programme for "Science for and with society", in order to engage European society, increase the attractiveness of science careers and address gender imbalance in the field.

**Horizon 2020** will tackle societal challenges by helping to bridge the gap between research and the market by, for example, helping innovative enterprise to develop their technological breakthroughs into viable products with real commercial potential. This market-driven approach will include creating partnerships with the private sector and Member States to bring together the resources needed.

International cooperation will be an important cross-cutting priority of **Horizon 2020**. In addition to **Horizon 2020** being fully open to international participation, targeted actions with key partner countries and regions will focus on the EU's strategic priorities. Through a new strategy, a strategic and coherent approach to international cooperation will be ensured across **Horizon 2020**.

For more information please see: [http://ec.europa.eu/research/horizon2020/index\\_en.cfm](http://ec.europa.eu/research/horizon2020/index_en.cfm)

Prof. Dr. Nikolas Fokialakis, Athens



## Recent thesis (2012) on Medicinal Plant Research



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

Ph.D. thesis (2013) Antiviral effects of plant extracts with antiadhesive properties against Influenz A-virus: Inhibition of viral adsorption by polyphenolic compounds from *Rumex acetosa* L., *Eupatorium perfoliatum* L. and *Hedera helix* L. By: Andreas Derksen; Promotor: Prof. Dr. Andreas Hensel, Institut of Pharmaceutical Biology and Phytochemistry, University of Münster, Germany.

Ph.D. thesis (2013) Natural deep eutectic solvents and their application in natural products research and development. By: Yuntao Dai. Promotores: Prof. Dr. R. Verpoorte, IBL, Leiden University, Leiden, NL, and Prof. Dr. G.J. Witkamp, Delft University of Technology, Delft, NL.

Ph.D. thesis (2013) Pyrrolizidine alkaloid variation in *Jacobaea* plants: From plant organ to cell level. By Tri Rini Nuringtyas. Promotores: Prof. Dr. R. Verpoorte and Prf. Dr. P.G.L. Klinkhamer, IBL, Leiden University, Leiden, NL.

Ph.D. thesis (2013) Mechanistic studies on indirubin-3'-monoxime regarding its anti-proliferative and anti-inflammatory effect in vascular smooth muscle cells. By: Tina Blažević; Promotor: Prof. Dr. Verena M. Dirsch, University of Vienna, Austria.

Diploma thesis (2013) "Phytochemische Untersuchungen zur Cyanogenese von *Aralia spinosa* L.". By Christian Wessel; Promotors: Prof. A. Hensel, University of Münster and Prof. Karen Nieber, University of Leipzig, Germany.

Diploma thesis (2013) Influence of selected natural products on protein tyrosine phosphatase 1B and insulin signaling. By: Sophie Bartenstein; Promotor: Prof. Dr. Verena M. Dirsch, University of Vienna, Austria.

Diploma thesis (2013) Design and Synthesis of a Compound Library Exploiting 5-Methoxyleoligin as Angiogenic Lead Structure. By: Sophie Geyrhofer; Promotor: Prof. Dr. Verena M. Dirsch, University of Vienna and Prof. Marko Mihovilovic, TU Vienna, Austria.

Diploma thesis (2013) Influence of AMPK-dependent pathways on the activation of Nrf2 by xanthohumol. By: Barbara Mayerhofer; Promotor: Prof. Dr. Verena M. Dirsch, University of Vienna, Austria.

Diploma thesis (2013) Neolignanderivate als PPARgamma- und RXRalpha-Modulatoren. By: Amina Cocic; Promotor: Prof. Dr. Verena M. Dirsch, University of Vienna, Austria.

Diploma thesis (2013) Mechanism of action of natural compounds enhancing macrophage cholesterol efflux. By: Nicole Schilcher; Promotor: Prof. Dr. Verena M. Dirsch, University of Vienna, Austria.

Diploma thesis (2013) Natural products to fight insulin resistance and hyperglycemia – establishment and application of relevant in vitro and cell-based screening models. By: Roberta Baron; Promotor: Prof. Dr. Verena M. Dirsch, University of Vienna, Austria.

Diploma thesis (2013) Versuche zur Isolierung von Oleocanthal aus Olivenöl. By: Dominic Dorfmeister; Promotor: Ao. Univ.-Prof. Dr. L. Krenn, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2013) Analyse phenolischer Inhaltsstoffe von *Drosera peltata* mittels narrow bore HPLC. By: Sonja Fischer; Promotor: Ao. Univ.-Prof. Dr. L. Krenn, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2013) Isolierung von Inhaltsstoffen aus dem Harz von *Dorema ammoniacum* D. Don. By: Johannes Lutz; Promotor: Ao. Univ.-Prof. Dr. L. Krenn, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2013) Entwicklung und Optimierung einer Trennmethode für ein Multi-Target-Screening. By: Kristina Mitterhauser; Promotor: Ao. Univ.-Prof. Dr. L. Krenn, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2013) Isolierung von Sekundärstoffen aus *Eriosema laurentii*. By: Katrin Ukowitz; Promotor: Ao. Univ.-Prof. Dr. L. Krenn, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2013) Untersuchungen zum Einfluss der Einzelkomponenten von Myrrhinil-intest® auf die LPS-induzierte TNF- $\alpha$ -Freisetzung an THP-1 Zellen". By Rebecca Jente; Promotor: Prof. Karen Nieber, University of Leipzig, Germany.

Diploma thesis (2013) Untersuchungen von Einzelextraktkombinationen von STW 5 auf die Kontraktilität von Dünndarmpräparaten der Ratte. By Natalia Mishenzon; Promotor: Prof. Karen Nieber, University of Leipzig, Germany.

Diploma thesis (2013) Einfluss von *Phyllostachys edulis*-Extrakten sowie deren Hauptmetabolit Isoorientin auf die Freisetzung der Cytokine IL6, IL8 und VEGF in TNF- $\alpha$ -stimulierten HaCaT-Kreatinozyten. By Tony Daubitz; Promotors: Prof. Veronika Butterweck, Fachhochschule Nordwestschweiz and Prof. Karen Nieber, University of Leipzig, Germany

### Editorial remark

All contributions for the GA-Newsletter are welcome. Deadline for submission for the next edition is fixed to May 20<sup>th</sup> 2014. Please send all contributions to: **Prof. Dr. A. Hensel**, University of Münster, Institute for Pharmaceutical Biology and Phytochemistry, Corrensstrasse 48, D-48149 Münster, Germany; ahensel@uni-muenster.de