

Message from the President



Dear members of GA,

It is a big pleasure for me to address this message to you. I was elected President at the General Assembly in Münster in 2013, and acting since January of this year. In this address I want to share with you some information of general interest as well as some thoughts.

The upcoming 62nd Annual Congress of GA will be held at the University of Minho in Guimarães, Portugal, from August 31 to September 4, 2014. The head of the organizing committee is Prof. Alberto Dias, with whom the Executive Committee has been closely collaborating in the preparation of the congress. It is for the first time that a GA Annual Congress will be held in Portugal. Given the strong ties of Portuguese universities with their counterparts in Latin America, we anticipate a strong participation of our GA members from the South American continent. The scientific program covers some topics that have not so much been in the focus of recent GA congresses, and these topics are flanked by internationally renowned plenary speakers. For this congress, we have associated the AFERP (Association Francophone pour l'Enseignement et la Recherche en Pharmacognosie) as a sister society. AFERP is organizing, within the overall congress program, a thematic block of lectures. From GA's side, we wish through this initiative to strengthen the dialogue with our French colleagues, and we count on a strong attendance of AFERP members.

During the congress several awards and a scholarship will be presented: The Egon Stahl Award in Gold to a scientist who, during his time of active research, has made significant and pioneering contributions to the field of natural product research. The Egon Stahl Award in Bronze will go to a scientist in an early stage of the scientific career, the Dr. Willmar Schwabe Award to a scientist who has made significant contributions in the field of

biological/pharmacological study of natural products and phytomedicines, and the Dr. Willmar Schwabe Scholarship for Young Scientists to a PhD student. This scholarship sponsors a research attachment in an internationally reputed group, and is specifically aimed at students from developing and emerging countries. I want to draw the attention of our youngest members to this fellowship: This can be a unique opportunity to widen the scope of your PhD project, and it enables you to link up with strong research groups! Our young members, PhD students and postdocs, are a main concern to GA. The Board of Directors (BoD) is well aware that the future of our society, and of our research field as a whole, lays on the shoulders of a younger generation of scientists. One initiative that grew out of these considerations has been the Young Researchers Workshop (YRW) which is held since many years now on Sunday prior to the official opening of the congress. It is not overstated to say that the YRW has been a success story! Another effort to engage younger GA members has been with the election, as a separate group, of younger BoD members. As a scientific society we have to continuously evolve, and active participation of the members is very important. Therefore: Suggestions and new ideas, especially also from our younger members, are highly welcome!


In that context, I am grateful to our BoD member from Ghana, Christian Agyare, who suggested to better link up GA members from developing countries with members in industrialized countries. I look forward to the outcome of the discussion he will coordinate during the GA Congress in Guimarães.

The foundation "Plants for Health" has been officially established a few months ago. The aim of this foundation is to promote natural products research in a broad sense, for example, by supporting innovative projects from junior research groups with seed money. The board of the foundation is working on the strategy for fundraising. Looking farther into the future, the preparations for next year's GA Annual Congress in Budapest are well underway. The organising committee under the direction of Prof. Judit Hohmann is working hard. We are looking forward to a strong scientific program, and to an attractive location in the heart of Europe. In 2016 the Joint Congress will be held in Copenhagen. We are grateful to Prof. Anna Jäger that she accepted, on behalf of GA, the considerable challenge of organising the Joint Congress. Thus, I invite you all to mark these two events already now in your agenda.

But first of all, I look forward to welcome many of you at the upcoming GA Congress in Guimarães!

Cordially,
Matthias Hamburger, President of GA

Notes to all GA Members




Editorial remark

All contributions for the GA-Newsletter are welcome.

Deadline for submission is fixed to November 20th 2014.

Please send all contributions by e-mail:
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Deceased members

(to our knowledge)

Prof. Dr. Josef Hölzl
University of Marburg, Germany
Born 22. November 1929
Passed away 17. July 2013
GA Member since 1973

Mr. Hans Hünerebin
Morbach, Germany
Passed away 08. March 2014
GA member since 1978

Dr. Bruno Wolters
Braunschweig, Germany
Passed away 10. February 2014
GA member since 1965

The Society will keep commemoration and offers its sincere condolence.

Notes from the Society

Some Data from the Membership Data Base

New GA members

Since November 2013 the following 57 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.

Dr. Tavs **Abere**, Nigeria; Abiodun **Adeyemi**, Nigeria; Dr. Amegnona **Agbonon**, Togo; Dr. Karami **Akbar**, Iran; Dr. Kemi **Akinwunmi**, Nigeria; Oke-Oghene **Akpoveso**, United Kingdom; Suhaib **Al-mahrab**, Iraq; Dr. Anita **Ankli**, Switzerland; Sylvain B. **Ateba**, Cameroon; Pravin **Badhe**, United Kingdom; Dr. Olaoye **Balogun**, Nigeria; Arun Jyothi **Bheemagani**, India; Robert Peter **Biney**, Ghana; Lorena Mayara **de Carvalho Cursino**, Brazil; Dr. Eldra **Delannay**,

France; Dr. De-Qiang **Dou**, China; Frau Sara **Eslambolchi Moghadam**, Switzerland; Heinrich Justin **Evanzin**, Austria; Maria **Faleschini**, Switzerland; Cheryl **Farkas**, United States of America; William **Fewell**, South Africa; Prof. Camilia **George**, Egypt; Dr. Rosana **Goncalves Rodriguez**, Brazil; Anna **Hattingh**, South Africa; Dr. Mohamed El Amir **Hegazy**, Egypt; Dr. Taghreed **Ibrahim**, Saudi Arabia; Evelyn Andrea **Jähne**, Switzerland; Oluwatosin **Johnson**, Nigeria; Dr. Lateef **Kasim**, Nigeria; Dr. Andreas **Koeberle**, Germany; Dr. Evelyn **Lamy**, Germany; Carmelina Flavia **Massaro**, Australia; Dr. Thomas **Michel**, France; Prof. Dr. Mahmud **Miski**, Turkey; Dr. Marizvikuru **Mwale**, South Africa; Dr. Hanen **Najjaa**, Tunisia; Dr. Mohamed **Neffati**, Tunisia; Christoph

Nicolaus, Germany; Louis-Felix **Nothias-Scaglia**, France; Dr. Obembe **Olawole**, Nigeria; Dr. James **Omale**, Nigeria; Dr. O. Rita **Omobuwajo**, Nigeria; Ednah Akinyi **Ooko**, Germany; Dr. Shakti Kumar **Prabhu Ji**, India; Honorata **Ropiak**, United Kingdom; Angelo **Salvador**, Portugal; Dr. Ramachandran Sarojini **Santhosh**, India; Dr. Tiziana **Sgamma**, United Kingdom; Muhammad Ajmal **Shah**, Pakistan; Dr. Maged **Sharaf**, United States of America; Dr. Ernawati **Sinaga**, Indonesia; Ms. Ilza Maria **Sousa**, Brazil; Cica **Vissiennon**, Germany; Dr. Sabine **Vollstedt**, Germany; Susan **Wagland**, United Kingdom; Tina **Wardecki**, Germany; Philipp **Werner**, Germany;

Dr. Birgit Benedek, GA Secretary

Invitation to the Members Meeting 2014

During the 62nd Annual Meeting of our Society which will take place in **Guimarães, Portugal**, from 31 August to 4 September 2014, a regular Members' Meeting will be held. It is scheduled for **Tuesday, 2 September 2014**, 6.30 p.m. – 7.30 p.m.

Location: Main Auditorium, Campus de Azúrem, Guimarães

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

Preliminary Agenda

1. Approval of the agenda
2. Approval of the minutes of the Members' Meeting held in Munster on 3 Sept. 2013 (published in GA Newsletter 2-2013)
3. Annual reports
 - 3.1 Report of the President
 - 3.2 Reports of the Vice-Presidents
 - 3.3 Report of the Secretary
 - 3.4 Report of the Treasurer
 - 3.5 Report of the Auditors
4. Discharge of the Executive Council
4. Report of the Editor-in-Chief of *Planta Medica*

5. Reports of the Permanent Committees
6. Future congresses, symposia and workshops
8. Miscellaneous

On behalf of the Executive Council

Prof. Dr. Matthias Hamburger,
GA President

62nd International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA)

The 62nd International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA), GA2014, will occur from 31st August to 4th September, at Guimarães, Portugal (for more information, please consult: <http://ga2014.bio.uminho.pt/>).

The Congress will be held at the University of Minho, Azúrem Campus, which is located in close vicinity to the medieval city center of Guimarães, a UNESCO World Heritage Site. The historical city of Guimarães 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.

GA2014 has been endorsed by the Association Francophone pour l'Enseignement et la Recherche en Pharmacognosie (AFERP). AFERP will have a special session at this meeting.

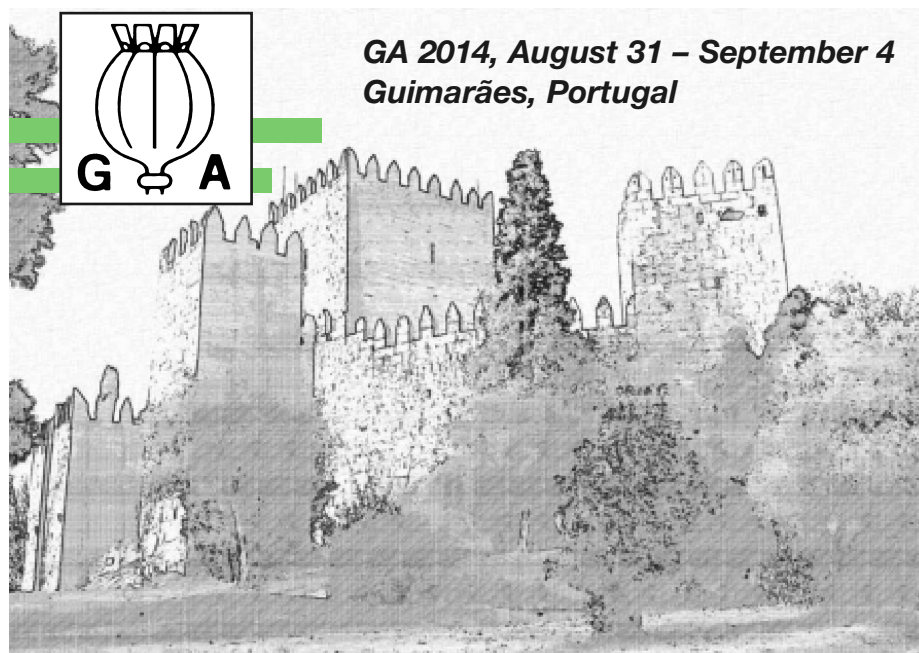
The main scientific topics include:

- 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

The Scientific program includes:

Plenary Speakers:

Jean-Luc Wolfender (Univ. Geneva, CH)
Metabolomics as an established tool in natural product research: opportunities in phytochemistry / perspectives in pharmacognosy



**GA 2014, August 31 – September 4
Guimarães, Portugal**

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

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

Massimo Fresta (Univ. "Magna Græcia", Catanzaro, IT)
Pharmaceutical nanotechnology meets natural products

Stefan Schillberg (Fraunhofer IME, Aachen, DE)
Molecular farming – production of pharmaceuticals in plants and plant cells

Nunziatina de Tomasi (Univ. Salerno, IT)
Plant-inspired drug discovery: new strategies for new leads

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

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

Cesar Fraga (Univ. Buenos Aires, AR; UCLA, USA)
Flavanols and vascular health: on the mechanisms to build evidence-based recommendations

AFERP Speakers and topics:

“Metabolome investigations: from tools to human health”

Young Choi (Univ. Leiden, NL)
Metabolomics and Natural Deep Eutectic Solvents: Discover a natural secret using an unbiased tool

Olivier Thomas (Univ. Nice, FR)
Metabolic profiling reveals deep chemical divergence between two morphotypes of the zoanthid *Parazoanthus axinellae*

Pierre Champy (Univ. Paris Sud, FR)
Unravelling the sanitary impact of Annonaceous acetogenins: a dereplicative approach

Sophie Tomasi, (Univ. Rennes, FR)
The metabolome of lichens and their partners, a source of bioactive compounds?

Workshops:

8th Young Researchers Workshop

Regulatory Affairs on Herbal Medicinal Products

Breeding and cultivation of Medicinal Plants

Biological and Pharmacological Activity of Natural Products

Additionally, more than 750 abstracts have been submitted, for oral and posters communications.

We expect that GA2014 will be a great opportunity for the presentation and discussion of the latest research in the fields of phytochemistry, analytics, pharmacology and clinical applications and a platform for networking between academia and industry.

Welcome to GA2014 in Guimarães!

Alberto Carlos Pires Dias
(Conference President)

GA in Dissemination of European Research Projects



Industry and Academia join forces for the Exploitation of microbial biodiversity for producing novel Cosmeceuticals

MICROSMETICS is the acronym of a research project that European industrial and academic partners are joining forces, under the financial support of EU, for the discovery and development of innovative cosmeceutical agents originating from microorganisms. The consortium, under the coordination of Dr. Nikolas Fokialakis, Assistant Professor at the Department of Pharmacognosy and Natural Products Chemistry (Faculty of Pharmacy, University of Athens), consists of four academic and four industrial partners from Greece, France and Spain that are leaders in their respective fields:

- Academic partners: National and Kapodistrian University of Athens (Greece), CNRS (France), Université de Reims Champagne Ardenne (France) and Fundación MEDINA (Spain).
- Industrial partners: Lavipharm (Greece), Soliance (France), Chemotargets SL (Spain) and Proteos Biotech (Spain).

The duration of the project is four years and has a total budget of 2.2 M€.

The scientific concept of MICROSMETICS involves the discovery and development of novel natural products with anti-aging activity originating from global microbial biodiversity. The project is integrating emerging technologies in the field of biotechnol-

ogy, natural products chemistry and applied microbiology, and incorporates successfully *in silico* screening tools, high-throughput screening platforms, state-of-the-art technologies for isolation and identification of active ingredients as well as innovative formulations methods.

In more details, existing culture collections are being exploited, incorporating modern high-throughput platforms (*in silico* & *in vitro*) for the rational and targeted selection of the most promising strains. Advanced analytical approaches and techniques will be applied for the efficient, accelerated and advantageous isolation and identification of natural constituents as well as the quality assessment of the lead products. A broad spectrum of bioassays and novel analytical approaches will be incorporated for the evaluation of anti-aging activity (more specifically anti-oxidant, skin-protecting, and skin-whitening) of all derived products. Attention will be given to the selection and optimization of fermentation technologies used for the production of final lead products to ensure sustainability. Within this frame, core scientific knowledge and lead compounds for further development are expected to be produced creating valuable synergies.

The abovementioned objectives will be implemented through an extended and balanced scheme of researchers' exchanges and recruitments, in both directions and via a mutual scientific project developed on the needs and interests of both industrial and academic sectors, exploiting the existing complementary expertise. Expertise will be transferred to young and senior researchers under training environments with different dynamics and orientation where other skills are required.

Overall MICROSMETICS 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 please visit the official MICROSMETICS website www.microsmetics.eu or follow us on twitter www.twitter.com/microsmetics.

ACKNOWLEDGMENT: “This project has received funding from the European Union’s Seventh Framework Programme for research, technological development and demonstration under grant agreement No 612276”.

Recent thesis (2013/14) on Medicinal Plant Research



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

Ph.D. thesis (2014) Chondroitin/dermatan 2-O sulfotransferase modulates growth factor signalling pathways to trigger cell migration. By: Katerina Nikolovska. Promotor: Prof. Dr. Andreas Hensel and Prof. Dr. Daniela Seidler, University of Münster, Germany.

Ph.D. thesis (2014) Polysaccharides differentially affect keratinocyte proliferation and differentiation *in vitro*: Mammalian and plant polysaccharides as potential wound healing agents. By: Jana Renke. Promotor: Prof. Dr. Andreas Hensel and Prof. Dr. Daniela Seidler, University of Münster, Germany.

Ph.D. thesis (2014) Metabolomic characteristics of *Catharanthus roseus* plants in time and space. By: Qifang Pan. Promotor: Prof. Dr. R. Verpoorte. Copromotores: Dr. Y.H. Choi and Dr. N.R. Mustafa. Natural Products Laboratory, IBL, Leiden University, Leiden, The Netherlands.

Ph.D thesis (2013). Travelling People, Travelling Plants: An Exploration into Food-Plant Practice across Transnational and Generational Landscapes. http://discovery.ucl.ac.uk/1417572/1/Jennings_Hannah_thesis.pdf. By: Hannah M. Jennings. First Supervisor: Prof. M. Heinrich, Centre for Pharmacognosy and Phytotherapy, UCL School of Pharmacy, University of London, UK.

Ph.D. thesis (2014) The Transformation of Traditional Asian Medical Knowledge into International Commodities – the Link between Traditional Medicines and the International Market. <http://iris.ucl.ac.uk/iris/publication/942641/1>. By: Anthony J. Booker; Supervisor: Prof. M. Heinrich, Centre for Pharmacognosy and Phytotherapy, UCL School of Pharmacy, University of London, UK and Dr. D. Johnston, School of Oriental and African Studies, University of London, UK.

Ph.D. thesis (2014) Toxicological Risk Assessment of Aristolochia Species. By: Johanna Michl; Supervisor: Prof. M. Heinrich, UCL School of Pharmacy, UK. Joint project with Prof. Monique Simmonds (Royal Botanic Gardens Kew), and Dr. Martin Ingrouille (Birkbeck College, Univ. London).

Ph.D. thesis (2014) Bioactive constituents in aronia berries. By: Paula Marie Bräunlich; Promotor: Hilde Barsett, Helle Wangensteen and Karl Malterud, School of Pharmacy, University of Oslo, Norway.

Ph.D. thesis (2014) Klinische Testung von Ulcophyt gegen Magenulcera beim Pferd. By: Viola Liebisch; Promotor: Prof. K. Zitterl-Eglseer and Prof. F. Jenner, University of Veterinary Medicine, Vienna, Austria.

Ph.D. thesis (2014) Discovery of antiprotozoal compounds from medicinal plants. By: Yoshie Adriana Hata-Urbe; Promotor: Prof. Dr. Matthias Hamburger, Pharmaceutical Biology, University of Basel, Switzerland.

PhD thesis (2014) Modulation of ion channels by natural products – identification of hERG channel inhibitors and GABAA receptor ligands from plant extracts. By: Anja Schramm; Promotor: Prof. Dr. Matthias Hamburger, Pharmaceutical Biology, University of Basel, Switzerland.

Ph.D. thesis (2014) Ethnomedicine-based discovery and characterization of plant-derived GABAA receptor modulators with new scaffolds. By: Diana Carolina Rueda; Promotor: Prof. Dr. Matthias Hamburger, Pharmaceutical Biology, University of Basel, Switzerland.

Ph.D. thesis (2014) Discovery of natural antiprotozoals from medicinal plants *Saussurea costus* and *Carica papaya*. By: Tasqiah Julianti; Promotor: Prof. Dr. Matthias Hamburger, Pharmaceutical Biology, University of Basel, Switzerland.

Diploma thesis (2014) Nrf2 activators from nature – screening and investigation of a potential crosstalk between Nrf2 and AMPK. By: Johannes Baldinger; Promotor: Prof. Dr. Verena M. Dirsch, University of Vienna, Austria.

Diploma thesis (2014) Characterization of Neolignans as potent RXR-alpha and/or PPAR-gamma agonists. By: Reem Selim; Promotor: Prof. Dr. Verena M. Dirsch, University of Vienna, Austria.

Diploma thesis (2014) Untersuchungen zur Wirkung von Bernumidine und strukturell verwandten Substanzen auf die Expression und Regulation von Schlüsselrezeptoren der Cholesterinhomöostase. By: Katrin Pöchhacker; Promotor: Prof. Dr. Verena M. Dirsch, University of Vienna, Austria.

Diploma thesis (2014) Investigation of the effect of leoligin derivatives on vascular smooth muscle cell proliferation. By: Natalie Maier-Revoredo; Promotor: Prof. Dr. Verena M. Dirsch, University of Vienna, Austria.

Diploma thesis (2014) Isolierung von Acetylcholinesterase-Hemmstoffen aus *Ferula gummosa* Boiss. By: Veronika Fitz; Promotor: Ao. Univ.-Prof. Dr. L. Krenn, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2014) Isolierung phenolischer Inhaltsstoffe von *Eriosema laurentii*. By: Claus Gatterer; Promotor: Ao. Univ.-Prof. Dr. L. Krenn, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2014) Isolierung phenolischer Wirkstoffe aus *Scrophularia lucida*. By: Verena Lewenhofer; Promotor: Ao. Univ.-Prof. Dr. L. Krenn, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2014) Phytochemische Untersuchung von *Eriosema laurentii*. By: Tamara Scherzer; Promotor: Ao. Univ.-Prof. Dr. L. Krenn, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2014) Massenspektrometrische Strukturaufklärung cysteinreicher Peptide aus der Beere von *Sambucus nigra* L. (Sambucaceae). By: Anne Jilg; Promotor: Prof. S. Glasl-Tazreiter, Dr. Martin Zehl, Department of Pharmacognosy, University of Vienna.

Diploma thesis (2014) Charakterisierung von phenolischen Inhaltsstoffen aus wässrigen Extrakten von *Leonurus sibiricus* L. (Lamiaceae). By: Carina Burgstaller; Promotor: Prof. S. Glasl-Tazreiter, Department of Pharmacognosy, University of Vienna.

Diploma thesis (2013) Phytochemische Untersuchungen wässriger Extrakte von *Justicia secunda* VAHL (Acanthaceae). By: Lisa Lueger; Promotor: Prof. S. Glasl-Tazreiter, Department of Pharmacognosy, University of Vienna.

Diploma thesis (2013) Chromatographische Aufarbeitung und Analyse von Frucht- Trester- Extrakten. By: Christiane Brenner; Promotor: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2013) Untersuchungen zur Taxolproduktion in der Haselnuss. By: Viktor Shaykhislamov; Promotor: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma/ Master thesis (2013) Aufreinigung von Apfeltrestern und begleitender Analytik. By: Maria Häusler; Promotor: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma/ Master thesis Charakterisierung von Heidelbeertrestern und deren phenolischen Inhaltsstoffen. By: Simon Job; Promotor: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma/ Master thesis (2013) Erstellung einer Monographie Calendulae extractum fluidum sowie Identifizierung von Polygalae radix für das österreichische Arzneibuch. By: Sabine Mascotti; Promotor: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma/ Master thesis (2013) Bioassay geleitete Isolierung und Charakterisierung der Inhaltsstoffe von Lobaria scrobiculata (Scop) P. Gaertn. By: Amandeep Kaur; Promotor: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2013) Untersuchungen zur Etablierung von photoautotrophen in vitro-Kulturen der Pappel (*Populus* sp.). By: Patricia Schnur; Promotor: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Editorial remark

All contributions for the GA-Newsletter are welcome. Deadline for submission for the next edition is fixed to November 20th 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