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

### Message from the President



Dear members of GA,

Publication of the first newsletter in the current year reminds us that the next Annual Congress of GA is approaching. The 63rd Annual Congress will be held in Budapest, from 23 to 27 August 2015. For the first time a congress of our society is organized in Hungary, and I am grateful to Prof. Judith Hohmann, Dr. Deszö Csupor, and the other colleagues of the Local Organizing Committee for hosting the event! We expect some 600 scientists from all over the world to gather in Budapest for four days. There will be plenary lectures by distinguished senior scientists, award lectures, short lectures, posters, the Regulatory Affairs and Young Researchers Workshops on Sunday. Also, a presymposium on advanced technologies in natural products research has been organized for Sunday. And there will be some cultural event during the conference, and post-congress excursions to discover some beautiful parts of Hungary. I wanted to express my gratitude to all those who are involved with the organiza-

Awards given this year include the Egon Stahl Award in Silver, the Bionorica Phytoneering Award, and the Dr. Willmar Schwabe Research Scholarship. Off course I cannot announce the awardees here - this will be done during the congress - but I wanted to draw once again the attention of ALL GA members to these awards and prizes of our society. At time I get the impression that the existence and aims of these awards is not sufficiently well known. While the decisions for the awardees of this year have been taken, the invitation for submissions for

the 2016 awards will follow towards end of this year. Thus, you all should consider whether your research, or maybe that of a research group you closely collaborate with, would fit with the aims of these prizes. And if you are a senior scientist from a lesser developed country, inform your PhD students of the Dr. Willmar-Schwabe Research Scholarship!

During the Annual Congress the Members Meeting will be held. The agenda is included in this newsletter. The most important point on the agenda of this year will be the elections for the Executive Committee (ExC) and Advisory Board for the next two-year term. I invite you all to participate in the Members Meeting and elections!

Looking further ahead, a Joint Meeting of Societies will be held next year, this time with GA as the lead organization. I am most grateful that Profs. Anna Jäger and Dan Staerk agreed to organize the meeting in Copenhagen. Preparations are well underway, and it will be a major event with well over 1000 participants. Besides the "usual suspects" ASP, PSE, GA, AFERP and SIF, for the first time the Japanese Society of Pharmacognosy (JSP) will join this event. I hope that this marks the beginning for a further extension of our Joint Meetings, towards a gathering of all important societies in the field of medicinal plant and natural products re-

In my last newsletter I invited you all to submit manuscripts to Planta Medica, our official scientific journal. This time, I can extend my invitation to include Planta Medica Letters. Planta Medica Letters was inaugurated a few months ago as an open access companion journal to Planta Medica. It focuses on the rapid publication of important new results in all fields of medicinal plant and natural product research. I invite you all to look into the first papers that have been published in Planta Medica Letters, and I do hope that this open access journal will be embraced by the GA members!

I hope to welcome many of you at the upcoming GA Congress in Budapest!

With best wishes

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 2015.

Please send all contributions by e-mail: Prof. Dr. A. Hensel University of Münster, Institute for Pharmaceutical Biology and Phytochemistry, Corrensstrasse 46, D-48149 Münster, Germany ahensel@uni-muenster.de



### **Deceased members**

(to our knowledge)

Mrs. Heike Hofert (Merdingen, Germany) passed away 04.07.2015 GA member since 2013

Prof. Raimo Hiltunen (Helsinki, Finnland) passed away 09.12.2014 GA member since 1975 Obituary see this newsletter

Mr. Klaus Dumkow (Villingen, Germany) passed away 11.01.2014 GA member since 1965

Frau Malgorzata Hartwich (Menden, Germany) passed away 29.01.2015 GA member since 1995 Prof. Carlos Armando López Moreno (Mexico) passed away in 2012 GA member since 2009

Prof. Jack G. Woolley (Leicester, UK) passed away in November 2012 GA member since 1<u>991</u>

Prof. Dr. Dr. h. c. mult. Heinz Schilcher (Immenstadt, Germany) passed away 17.06.2015 GA member since 1962

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 2014 the following 98 members have joined our Society.

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

Dr. Mohd Fadzelly Abu Bakar, Malaysia; Areli Acevedo Quiroz, Mexico; Dr. Angelica Berenice Aguilar Guadarrama, Mexico; Augustina Akinsanmi, Nigeria; Dr. Eman Al-Sayed, Egypt; Adil Albayati, Iraq; Dr. Vera Almeida, Brazil; Dr. Sherin Amin Mahfouze, Egypt; Dr. Ivana Arsic, Serbia; Ines Septi Arsiningtyas, Japan; Dr. Irem Atay, Turkey; Ms. Florence Auberon, France; Gabriela Maria Avila Villarreal, Mexico; Charles Awortwe, South Africa; Dr. Hasnah Bahari, Malaysia; Theresa Beelders, South Africa; Vasiliki-Ioanna

Boka, Greece; Dr. William Bornmann, USA: Sumer Tuzun Burcu. Turkev: Dr. Charles Chime, Nigeria; PeeWin Chong, Malaysia; Dr. Fernando Costa, Brazil; Dr. Monika Czerwinska, Poland; Georgios Daletos, Germany; Corina Danciu, Romania; Dr. Elizabeth Dauncey, United Kingdom; Christian De Ford, Germany; Vianey de la Rosa Lugo, Mexico; Pelin Degirmenci, Turkey; Kogilavanee Devasvaran, Malaysia; Lizet Diaz Peralta, Mexico; O.A. Diyaolu, Nigeria; Bin Du, Hong Kong; Dr. Edmund Ekuadzi, Ghana; Dr. Sherweit El-Ahmady, Egypt; Ahmet Emir, Turkey; Ceren Emir, Turkey; Dr. Miriam Falkenberg, Brazil; Arnold Donkor Forkuo, Ghana; Dr. Kenn Foubert, Belgium; Dr. Claudia Furlan, Brazil; Mehdi Ghanavati, Iran; Diana Elizabeth Giles Rivas, Mexico; Lorène Gourguillon, France; Filiz Gurbuz

Boyali, Turkey; Astrid Henz, Sweden; Mojtaba Heydari, Iran; Dr. Ramsay Kamdem Soup, Germany; Miroslava Kamenikova, Slovakia; Dr. Tong Ho Kang, Korea; Cigdem Karakoyun, Turkey; Hubert Karreman, USA; Ella Anle Kasanga, Ghana; Dr. Adesegun Kashimawo, Nigeria; Eunbin Kim, Korea; Minjee Kim, Korea; Dr. Yeong Shik Kim, Korea; Antonios Koutsoulas, Slovakia; Marco Kreuzer, United Kingdom; Anika Kuczmannova, Slovakia; Kuei-Hung Lai, Sweden; Mairin Lenz, Germany; Pearl Majorie Liew, Malaysia; Natchagorn Lumlerdkij, United Kingdom; Tatjana Majkic, Serbia; Marta Malolepsza, Belgium; Vanessa Mardones, Canada; Nana Ama Mireku-Gyimah, Ghana; Stefanie Nikles, Austria; Dr. Innocent Onyesom, Nigeria; San-Po Pan, Austria; Polychronopoulos Panagiotis,



Greece; Diandra Pintac, Serbia; Dr. Kaan Polatoglu, Turkey; Prof. Vladimir Poroikov, Russia; Dr. Marta Powikrowska, Sweden; Munikishore Rachakunta, India; Dr. Maria de los Angeles Ramirez Cisneros, Mexico; Dr. Ma. Yolanda Rios Gomez, Mexico; Dusanka Runjaic-Antic, Serbia; Secil Sarikaya, Turkey; Dr. Dan

Staerk, Denmark; Iwona Stanislawska, Poland; Barbara Theiler, Austria; Christian Thöle, Germany; Umit Toktas, Turkey; Anita Tóth, Hungary; Diana Ulrich, Germany; Dr. Ayse Uz, Turkey; Dr. Marilia Valli, Brazil; Anette van der Aa, Netherlands; Ines Van Dooren, Belgium; Dr. Andrea Vasas, Hungary; Krisztina Végh,

Hungary; Argyro **Vontzalidou**, Greece; Dr. Funda Nuray **Yalcin**, Turkey; Merve **Yüzbasioglu**, Turkey; Yoghatama C. **Zanzer**, Sweden.

Dr. Birgit Benedek, GA Secretary

### 40 Years of GA Membership

Based on a decision of the ExC, members who have reached 40 years of GA membership shall be rewarded for their loyalty and fidelity to the Society with a waiver of membership fees. In 2015 the following 7 members have reached 40 years of GA membership:

Dr. Ilse **Bungert-Hansing**, Germany; Prof. Dr. Eckhard **Leistner**, Germany; Prof. Dr. Elisabeth **Stahl-Biskup**, Germany; Prof. Dr. Robert **Verpoorte**, Netherlands; Prof. Dr. Hildebert **Wagner**, Germany; Wolf

Hartmut **Weber**, Germany; Prof. Dr. Eckhard **Wollenweber**, Germany.

GA thanks and congratulates those longstanding members.

# 40 Years GA member: Prof. Elisabeth Stahl-Biskup looks back to her early GA years

Forty years of membership in the Society for Medicinal Plant and Natural Product Research (GA) - this has been a very eventful time, professionally and for me personally as well. "To see and be seen" was my motive for joining the GA in 1974 on the occasion of the 22<sup>nd</sup> Annual Congress in Tübingen (Germany). This decision was more than worthwhile. Not only did I have the exciting opportunity to meet the "Pharmacognosists" from the other universities, there was also stimulating participation at the annual meetings. For me the GA very quickly became an important forum for the exchange of scientific experience, a chance to look beyond my own small laboratory into the fields of research and methods of those people who were - at first - my teachers, and later my colleagues. For me the most exciting mo-



The author in 1975

ment came during the GA meeting in Zurich in 1977 when I had to deliver my first short lecture entitled "TLC of illegal LSD preparations and the densitometric quantification". In the 1970's and 80's an exchange of practi-



The author in 1995

experience was of great importance because the chromatographic and spectrometric methods were evolving continuously and very quickly. In addition an intensive discussion the future role of herbal medicinal

products in Germany – and later in Europe – became more and more essential.

During the time I have been a member the GA has developed from a small, familiar community to an internationally active society whose congresses have become a highly attractive platform for scientists at home and abroad. This is perceptible in numerous innovations and reforms which have taken place over the past 40 years. The most important of these are: the launching of the GA-Newsletter (1978), the introduction of posters and poster sessions (1979), the establishment of the Egon-Stahl-Award in silver and bronze (1984), the first "joint meeting" outside of Europe (1985), the exclusive use of the English language (since 1988), the setting up of the "Permanent Committees" (1988), the Egon-Stahl-Award in gold (since 1999), awarding travel grants for young scientists (since 2000), and last but not least changing the name from "Society for Medicinal Plant Research" to "Society for Medicinal Plant and Natural Product Research" in 2007. The number of members has grown during this time from 350 to more than 1000 at present.

Looking back, I see the GA as an important stepping stone in my "career". I was able to make many long-standing professional



The author in 2011

personal and contacts which exist to the present day. I hope that through my work as member of the Advisory Board (1988-1999) and as the editor of the GA-Newsletter (1988-1997), as returning officer and auditor, I have been able

to repay the GA to some small extent for the many ways I have profited from the Society. I will always be grateful to the GA and will keep in touch with the Society through its activities.

Prof. Dr. Elisabeth Stahl-Biskup, Hamburg, Germany



### Obituary Raimo Hiltunen

# In memoriam: Prof. Raimo Hiltunen, a 'tremendous force' in Pharmacognosy and Pharmacy in Finland

The University of Helsinki community was saddened to learn that Professor Raimo Hiltunen – a driving force behind the Faculty of Pharmacy and the chair of Pharmacognosy – had passed away on December 9, 2014, at age 70 after a battle with severe illness.

Professor Raimo Hiltunen was born on July 25, 1944 in Piippola, a small municipality of Finland, located over 500 km north of the Finnish capital, Helsinki. He started his career in the beginning of 1960 at the Finnish Forest Research Institute (Metla), where he became familiar with thin layer chromatography for the analysis of pine components. From there he went to the Department of Botany and Microbiology at the Valio research laboratory, headed by the Nobel prize winner A.I. Virtanen. In 1963, Professor Max von Schantz invited Hiltunen to serve as research assistant at the Division of Pharmacognosy, Department of Pharmacy, University of Helsinki. That was the start of a 50 year career at the University of Helsinki.

While working in the laboratory, Raimo Hiltunen showed exceptional talent in learning and adopting new analytical methods and techniques in, for example, the research of essential oils. In order to ensure admission to university, in 1964 he enrolled in evening classes at Kustaa Vaasa, Helsinki high school. In 1970 he passed the matriculation examination, having worked simultaneously as a research assistant in the laboratory. Raimo Hiltunen was subsequently accepted directly into the pharmacy program at the Faculty of Science in the University of Helsinki.

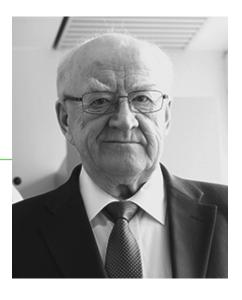
The studies went fast: pharmacy candidate in 1974, licentiate in 1977 and doctorate in 1978. The thesis on essential oils of Pinus silvestris was multidisciplinary, and unusually, two opponents were needed for the public defence, who afterwards stated that the work could also have been ac-

cepted apart from pharmacognosy thesis also as a thesis in the disciplines of botany, plant biology, genetics or statistics. Raimo Hiltunen was nominated as docent in pharmacognosy 1978, associate professor in 1980 and full professor in pharmacognosy in 1988, a position he chaired until his retirement in 2012.

In his research work, Raimo Hiltunen was especially hard-working and productive. Different analytical techniques such as gas and liquid chromatography and mass spectrometry were his interests, which he used during extensive studies of natural products in drugs or plant biotechnology. He published around 500 scientific articles, text books and other publications. As a teacher, Raimo Hiltunen was very inspiring. He could simplify difficult, complicated questions into easy understandable concepts. This rare talent for an academic, combined with open-minded and diversified thinking produced memorable lectures for students. His enthusiasm for international cooperation encouraged his students and colleagues to establish connections and cooperation around the globe. Taking part in congresses together with Raimo Hiltunen meant except studies or work also learning life skills e.g. in the frame of cheerful evening parties.

Raimo Hiltunen took great care with not only the basic university teaching, but also continuing pharmacy education for health store experts organized by the Palmenia Centre for Continuing Education. The cooperation between Palmenia and Faculty of Pharmacy was always exemplary fruitful. As representative of pharmacy for almost 20 years in the board of Palmenia Raimo Hiltunen was a key person when new innovative approaches in education were developed.

Professor Hiltunen was also highly valued in university administration. He acted as Head of the Department of Pharmacy and his influence establishing the Faculty of



Pharmacy was decisive. He acted as the Dean ex officio in the new Faculty from 2004 to 2010.

He acted in several national and international scientific societies. One of them was GA – Society for Medicinal Plant and Natural Product Research – in which Raimo Hiltunen was very active. He was, over the years, a member of the advisory board of GA and took part in the annual conference every year. GA was also a channel for introducing experienced international scientists to Hiltunen's students and scientists. Thus the GA conferences often served as an important forum for junior scientists to present their scientific results for the first time.

Raimo Hiltunen enjoyed both travelling and staying at work. This left only limited time for hobbies. However, while acting as inspector, honorary chairman of a big student nation, the extra-curricular activities and parties with young students representing different study fields brought welcome variation to everyday life at work. Cooking, spices, wines and antique Rome were also close to his heart.

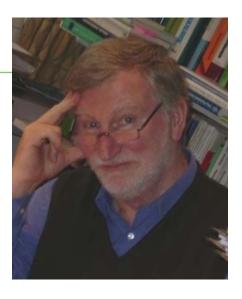
Raimo is survived by his wife Leena, two daughters, Annemari and Päivi, and his dear grandson, 6-year old Paavo, as well as numerous friends during his long working career.

Keijo Huovinen, Mauno Kosonen, Kirsi-Marja Oksman-Caldentey and Heikki Vuorela The authors are friends of Raimo Hiltunen



# 75<sup>th</sup> Birthday of Prof. Dr. rer. nat. Dr. h. c. Adolf Nahrstedt

Prof. Dr. rer. nat. Dr. h.c. Adolf Nahrstedt, Editor in Chief of Planta Medica from 1993–2004, will celebrate his 75<sup>th</sup> birthday on August 9<sup>th</sup> this year. GA wishes all the best and good health!



# 85<sup>th</sup> Birthday of Prof. Dr. Dr. h. c. mult. Heinz Schilcher

The Society for Medicinal Plant and Natural Product Research (GA) sends her congratulations to Prof. Dr. Dr. h. c. mult. Heinz Schilcher, who has celebrated his 85. birthday on the 21st of February 2015. He is one of the first members of GA (since 1962!) and Honorary Member since 2000. From 1959 on he was present almost on every annual congress of GA, this means for more than 50 years. But, he was not only present, he has always contributed many ideas, informations and inspirations. It is not necessary to repeat his curriculum, because you can find it in the GA Newsletter of December 2000. It is more important to look at the special characteristics of his personality and especially at his contributions to the world of medical use of plants.

Special particularities are his interdisciplinary work, his good integration into practical work of Phytotherapy, product development and all aspects of quality assurance of plant- based products. But not less important: his open mind and habit of saying clearly what he is thinking, regardless if he won't be everyone's darling. He also always is willing to pass his knowledge to others without hesitating.

He has contributed a lot to the knowledge about practical aspects of medical plant use. In contrast to many other researchers, he was not interested only in special knowledge, but also in having the overview and looking for the context and the coherence of facts for a good plant-based therapy.



The GA sends her very best wishes especially for good health, happiness and good life, together with his wife, and a lot of friends.

Dr. Bruno Frank, Kleinrinderfeld, Germany

Just before completion of the GA Newsletter we received the sad news that Prof. Heinz Schilcher passed away on the 17th June 2015. Prof. Schilcher will be deeply missed in the scientific community not only as a great colleague, but also as a true friend. Our deepest sympathies are with his wife and family. An obituary will be published in the next GA newsletter.

### Invitation to the Members Meeting 2014

During the 63<sup>rd</sup> Annual Meeting of our Society which will take place in Budapest, Hungary, from 23 to 27 August 2015, a regular Members' Meeting will be held. It is scheduled for Tuesday, 25 August 2015, 7.00 p.m. to 9.00 p.m.

Location: Bartók meeting room, Budapest Congress Center, Jagelló u. 1–3, 1123 Budapest, Hungary.

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

- Approval of the minutes of the Members' Meeting held in Guimaraes on 2 Sept. 2014 (published in GA Newsletter 2-2014)
- 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
- 3.5 Discharge of the Executive Council
- 4. Report of the Editor-in-Chief of Planta Medica
- 5. Election of the Board of Directors
- 5.1 Election of the President

- 5.2 Election of the two Vice-Presidents
- 5.3 Election of the Secretary
- 5.4 Election of the Treasurer
- 5.5 Election of the members of the Advisory Board
- 6. Future congresses, symposia and workshops
- 8. Miscellaneous

On behalf of the Executive Council, Prof. Matthias Hamburger, GA President



# GA-networking group on medicinal plants and natural products in animal healthcare and veterinary medicine will meet again in Budapest

About two years after our initial meeting in Münster the GA-networking group on medicinal plants and natural products in animal healthcare and veterinary medicine will meet again in Budapest. Thanks to the local organizers research into medicinal plants and natural products in animal health is again a main topic of the 63rd GA congress and annual meeting. All scientists involved or interested in research regarding veterinary phytopharmacology and ethnoveterinary medicine, clinical applications of natural products and herbal drug materials in animals as well as plant derived feeding additives are invited to discuss research results and project ideas with colleagues from all over the world. Really interesting abstracts regarding our animal issue have been submitted.

One session consisting of 5-6 short lectures is planned on Tuesday 25th or Wednesday 26th of August. Our poster session will also be held on Wednesday 26th of August. Furthermore we have the opportunity to hold a short networking group meeting on Tuesday during lunch time. Our meeting will take place at the conference center. We would like to share and discuss ideas regarding the networking group. Please feel free to submit ideas and comments to Anette van der Aa (an.vanderaaga@gmail.com) and Michael Walkenhorst (michael.walkenhorst@fibl.org). Tuesday evening (at about 20.30, after the GA-members-meeting) there will be some more time for creative discussions and planning of future activities of our networking group during a "GA-animalhealthgroup-



working-dinner" (also to be held at the conference center).

In Muenster in 2013 it proved very helpful for establishing personal contacts to stay in the same hotel. Therefore we would like to suggest to stay together in the Novotel Budapest City where the congress is held.

Looking forward to meeting you all in August in Budapest,

Anette van der Aa and Michael Walkenhorst

### 111 Years of Pharmacognosy at the University of Vienna

On the occasion of the 111 year anniversary of Pharmacognosy at the University of Vienna, the Faculty of Life Sciences extended an invitation to the farewell symposium for Brigitte Kopp and the inaugural lecture of Judith Rollinger on 21. January 2015.

Verena Dirsch, Head of the Department of Pharmacognosy, gave a historical overview of the department, before introducing the invited speakers, Beat Ernst from the University of Basel and Lars Bohlin from the University of Uppsala. While Beat Ernst spoke about carbohydrate-mimetics and their potential for pharmacotherapy, Lars Bohlin's lecture was about bioassays in natural product research and his own 40 years of experience.

years of experience.

Pharmacognosy at University of Vienna: Profs. V. Dirsch, B. Kopp and J. Rollinger (© University of Vienna)

Judith Rollinger presented her area of research in the lecture "Lead structures from nature – a bridging of empiricism and theory". She was appointed as full professor of pharmaceutical biology at the University of Vienna in October 2014, taking over from Brigitte Kopp.

In his laudation, Ernst Urban, professor of Pharmaceutical Chemistry at the University of Vienna, recognised the merits of Brigitte Kopp, who retired in September 2014. As an example for her international scientific standing and networking he mentioned Brigitte Kopp's longstanding service for GA.

At the end of the symposium Brigitte Kopp was unexpectedly awarded with the "Große Silberne Ehrenzeichen für Verdienste um die Republik Österreich", one of the highest official honours of the Republic of Austria. On behalf of the Austrian President Heinz Fischer the Rector of the University Heinz Engl handed over the medal to B. Kopp in recognition of her services for the University of Vienna.

In the name of GA I would like to congratulate "Gitti" on this outstanding honour and thank her for her longstanding service for the Society.

Further, on behalf of GA I wish Judith success and personal fulfilment in her new position. We hope that she will continue to make an active contribution to GA for many more years to come!

Dr. Birgit Benedek, GA Secretary







# 63<sup>rd</sup> International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research

The 63rd International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA) will be held in Budapest, Hungary, from 23 to 27 August, 2015. Budapest, an European metropolis, with its vibrant cultural life is an exciting capital in centre of Europe, and has a history dating back over 2000 years. It is the economic, financial and cultural centre of Hungary, beautifully situated on both sides of the Danube river. The aim of the congress is to serve as a forum for discussions on trends and latest results, and to exchange ideas relating to phytochemical analysis, ethnopharmacology and phytopharmacology. The scientific program will include plenary lectures by invited speakers, as well as short lecture sessions and poster presentations on recent topics of natural product research. The main scientific topics are:

- From natural products toward potential drug leads
- Natural products in CNS-related diseases
- Medicinal plants in the treatment of chronic diseases
- Pharmacokinetics of phytochemicals
- Clinical and observational studies with herbal products
- Quality assessment of medicinal plants, phytomedicines and herbal dietary supplements
- New opportunities for biotechnology and cell biology
- Ethnobotany and ethnopharmacology
- Herbal dietary supplements
- Medicinal plants and natural products in animal healthcare and veterinary medicine

In addition, a session dealing with metabolomics will be organised with Roger Linington as keynote speaker.

All the invited speakers have confirmed their participation in the program as follows:

Giovanni Appendino (Università del Piemonte Orientale, Department of Pharmaceutical Sciences, Italy): *Helichrysum italicum*: Back to medicine from the tinsel of luxury.

Armando Cáceres (Universidad de San Carlos, Facultad de CCQQ y Farmacia, Laboratorio Farmaya Guatemala, Guatemala): From traditional uses of Mesoamer-

ican medicinal plants to modern phytotherapy in Guatemala.

Anne Eckert (University of Basel, Neurobiology Lab for Brain Aging and Mental Health, Transfaculty Research Platform, Molecular & Cognitive Neuroscience, Schwitzerland): Natural substances and neurodegenerative diseases: From molecular mechanisms to clinical effects.

István Katona (Institute of Experimental Medicine of Hungarian Academy of Sciences, Department of Molecular and Developmental Neuroscience, Budapest, Hungary): The Cannabis plant and the endocannabinoids: How an ancient medicinal plant helps uncovering of a major signalling system in our body.

Thierry Langer (University of Vienna, Department of Pharmaceutical Chemistry, Austria): 3D Feature-based pharmacophore models: Efficient tools for profiling natural products.

Nicolas Oberlies (University of North Carolina at Greensboro, Department of Chemistry and Biochemistry, USA): Approaches and progress toward bioactive leads from fungi.

Gisbert Schneider (ETH Zürich, Department of Chemistry and Applied Biosciences, Institute of Pharmaceutical Sciences, Switzerland): Natural product inspired drug discovery: How to teach your computer?

Ben-Erik Van Wyk (University of Johannesburg, Department of Botany and Plant Biotechnology, South Africa): African perspectives on natural product research, based on ethnobotanical and ethnopharmacological knowledge.

Nearly 700 abstracts were received, and about 80 of these were selected for oral communication and about 600 will be presented as posters. Two poster sessions will take place at central time frames within the congress, providing in-depth insights into various aspects of medicinal plant and natural product research.

A Pre-Congress Symposium, entitled "Advanced Analytical Technologies as Applied to Natural Products Research" was scheduled in frame of the congress on 23rd August. This one-day Symposium will present a complete overview of all the latest analytical equipment available to perform

extraction, chromatographic separations, structure elucidation and analytical data management. In addition, two further workshops are also scheduled on 23rd August. The 9th Young Researchers Workshop, organized by Sandra Apers and Robert Fürst, offers the unique opportunity to present and discuss results of young colleagues, including practical problems during the daily lab work, in a free and relaxed atmosphere. Special emphasis will be laid on the problem-solving discussion between all participants.

The Regulatory Affairs of Herbal Medicinal Products Workshop will be organised by Susan Alban. The speakers of the workshops will be Werner Knöss, Gerhard Franz, Bernd Roether, Mei Wang and Emiel van Galen.

Attendees will have the opportunity to meet and hear presentations by the winners of Egon Stahl-Award in Silver, Dr. Willmar Schwabe Research Scholarship for Young Scientists, Bionorica Phytoneering Award, and the Planta Medica Best Paper Award. Celebration of the centenary of the Research Institute of Medicinal Plants, Budakalász (Hungary) is also planned by a plenary lecture.

Apart from the scientific program, stimulant and diverse social programs will be offered. This will include excursions to Pannonhalma and Tihany Peninsula. Pannonhalma is famous for its ancient monastery and a source of Hungarian medicinal plant culture. The participants of this excursion will have the opportunity to visit the recently renovated monastery, which is a World Heritage site, and the botanical and medicinal plant garden, where the tradition of Benedictine medicinal plant cultivation is still preserved. The Tihany Peninsula, where cultural heritage and medicinal plant culture meets, with its unique microclimate and magnificent view to the Lake Balaton, will also offer unforgettable experiences for the participants.

We look forward to seeing you at the GA2015 Congress in Budapest for what we hope that it will be an exciting week of collaboration, inspiration, and discovery. For more information please visit our homepage at www.ga2015.hu.

Prof. Judit Hohmann and Dezsö Csupor PhD, Co-Chairs of the Congress







# A New EU project under Horizon 2020 for marine natural products!

## Tools And Strategies to access to original bioactive compounds through the Cultivation of MARine invertebrates and associated symbionts – TASCMAR

TASCMAR is the acronym of an H2020 EU-funded project, joining the forces of five academic institutions, seven commercial partners and one NGO, and sets out to find new, efficient and sustainable ways of discovering marine-derived molecules and applying them in the field of pharmaceuticals, cosmeceuticals and nutraceuticals with a particular focus on the theme of anti-ageing. The project will also engage innovative cultivation technologies for marine invertebrates and associated symbionts.

TASCMAR is coordinated by Dr J. Ouazzani, Research Director in the Institut de Chimie des Substances Naturelles within the Centre National de la Recherche Scientifique, France, and the project team includes the University of Athens (Greece), Tel Aviv University (Israel), Chulalongkorn University (Thailand) and Université de la Réunion (Ile de la Réunion). The team includes the commercial partners CRELUX GmbH (Germany), BiCT srl (Italy), Pierre Guerin Technologies (France), iMare Natural S.L. (Spain), ASTAREAL AB (Sweden), Apivita (Greece) and T6 Ecosystems srl (Italy) as well as the Israelian NGO EcoOcean.

The project will focus on the potential of marine invertebrates and their associated symbionts located in the under-investigated mesophotic zone (between 30 and 100 meters depth) and aims to end with the industrial application of bioactive compounds and the development of innovative cultivation equipment. Seven expeditions dedicated to mesophotic coral ecosystems and temperate mesophotic ecosystems will be carried out, with particular emphasis placed on respecting biodiversity, resource preservation and ethical principles as laid out in local, regional, national, European and international rules and policies.

Innovative approaches for the cultivation and extraction of marine organisms from lab to pilot-scale, will be used and marine dedicated cultivation and extraction equipment will be built and validated. These unique improvements will ensure the sustainable supply of biomass and promote the production of high added value bioactive marine compounds. An integrated, holistic technological metabolomic approach will be applied, in conjunction with bioactivity profiling, as filtering and bio-prioritisation tools. State-of-the-art analytical instrumentation and in-house databases will be employed for the dereplication and characterization of valuable compounds. A panel of libraries (marine organisms, extracts, pure metabolites and biocatalysts) will be constructed and exploited throughout the project. A focused panel of in-vitro, cell-based, in-ovo and in-vivo bioassays for discovering metabolites with anti-ageing and/or angiogenesis modulating activity will frame the entire work-flow and will reveal the lead compounds. In addition, the catalytic potential of mesophotic symbionts and deriving enzyme candidates will be evaluated for the bioremediation of persistent pollutants.

In working to achieve these objectives, TASCMAR aims to promote fruitful and long-term collaboration between research institutions and industry in the field of novel and bioactive marine derived natural products and industrial biomaterials and will contribute to the implementation of the European Commission Blue Growth Strategy for unlocking the potential of seas and oceans to support sustainable growth.

For further information, please contact Jamal.ouazzani@cnrs.fr

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Dr. Nikolas Fokialakis



# Recent thesis (2014/15) on Medicinal Plant Research



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

Ph.D. thesis (2015) Isolation and characterization of secondary metabolites from *Crocus sativus* L. and *Crataegus* spp.: Permeation studies on Caco-2 and bloodbrain barrier models. By: Marcus Lautenschläger; Promotor: Prof. Dr. Andreas Hensel; University of Münster, Institute of Pharmaceutical Biology and Phytochemistry, Germany.

Ph.D. thesis (2015) Myrothamnus flabellifolia Welw: Isolierung, Charakterisierung und Qunatifizierung phenolischer Inhaltsstoffe. By: Claudia Engelhardt. Promotor: Prof. Dr. Andreas Hensel; University of Münster, Institute of Pharmaceutical Biology and Phytochemistry, Germany.

Ph.D. thesis (2015) Xanthoria parietina polysaccharides: Isolation, characterization and infleunce on murine macrophages under in vitro conditions. By: Zalilawati Binti Mat Rashid. Promotor: Prof. Dr. Andreas Hensel; University of Münster, Institute of Pharmaceutical Biology and Phytochemistry, Germany.

Dr. rer. nat. thesis (2015) Untersuchung von Naturstoffen als MHC-II Beladungskatalysatoren am Beispiel des HLA-DR1 Serotyps. By: Annika Schnieders; Promotor: Prof. Dr. Thomas J. Schmidt, Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Germany.

Ph.D. thesis (2015) Trypanocidal activity evaluation of the compounds 1,3,4-thiadiazols and determination of the mechanism of action of the derivate 5-[4-methylphenyl]-*N*-{2-[(1*R*)-4-methylcyclohex-3-en-1-il]propan-2-il}-1,3,4-thiadiazol-2-amine, involved on the cell death of *Trypanosoma cruzi*. By: S. C. Martins; Promotor: Prof. C. V. Nakamura, Departamento de Ciências Básicas da Saúde, Maringá University, Brazil.

Ph.D. thesis (2014) *Poincianella pluviosa*: cell viability study, keratinocytes and fibroblasts proliferation *in vitro*, and healing assessment in diabets and normoglycemic rats. By: Fernanda Giacomini Bueno; Prof. J. C. P. Mello, Posgraduate Program of Pharmaceutical Sciences, State University of Maringá, Brazil.

Ph.D. thesis (2014) Screening of Panmanian plant extracts for agricultural and cosmetic activities, and metabolomic study of Isatis tinctoria accessions. By: Niels Hendrik Guldbrandsen; Promotor: Prof. M. Hamburger, University of Basel, Switzerland.

Ph.D. thesis (2014) In vitro studies on the mechanisms of action of chamomile, myrrh and coffee charcoal – components of a traditional herbal medicinal product (Myrrhinil-Intest. By: Cica Vissiennon; Promotor: Prof. Dr. Karen Nieber, University of Leipzig, Germany.

Ph.D. thesis (2014) Cannabinoids production in Cannabis sativa L.: An in vitro approach. By Sayed Farag Hussein; Promoter: Prof. Dr. Oliver Kayser; Technische Universität Dortmund, Department of Biochemical and Chemical Engineering, Chair of Technical Biochemistry, Germany.

Ph.D. thesis (2014) Isolation, identification, and characterization of endophytes from Cannabis sativa L. and Radula marginata. By Parijat Kusari; Promoter: Prof. Dr. Oliver Kayser; Technische Universität Dortmund, Department of Biochemical and Chemical Engineering, Chair of Technical Biochemistry, Germany.

Ph.D. thesis (2014) Metabolomics, proteomics, and transcriptomics of Cannabis sativa L. trichomes. By Nizar Happyana; Promoter: Prof. Dr. Oliver Kayser; Technische Universität Dortmund, Department of Biochemical and Chemical Engineering, Chair of Technical Biochemistry, Germany.

M.Sc. thesis (2015) Investigation of the anti-Leishmania (L.) infantum activity of natural sesquiterpene lactones. By: Imke F. Wulsten; Promotors: Prof. Dr. Thomas J. Schmidt, Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Germany. Prof. Dr. André Tempone, Instituto Adolfo Lutz, Sao Paulo, Prof. Dr. Rupert Mutzel, Freie Universität Berlin.

Master thesis (2015) Piperine and its synthetic derivatives exhibit different modes of inhibition on human CYP3A4 activities in vitro. By: Tanja Odermatt; Promotor: Prof Dr. V. Butterweck, University of Applied Sciences Northwestern Switzerland and Prof. Dr. M. Hamburger, University of Basel, Switzerland.

Diploma Thesis (2015) Aktivitätsgeleitete Untersuchungen von Scrophularia lucida. By: Lisa Schweighofer; Promotor: Prof. L. Krenn, Department of Pharmacognosy, University of Vienna, Austria.

Diploma Thesis (2015) Red Clover: New Research in Chemistry, Pharmacology, Toxicology and Clinics from 2004 to 2007. By: Ekaterine Sapanadze; Promotor: Prof. L. Krenn, Department of Pharmacognosy, University of Vienna, Austria.

Diploma Thesis (2015) Struktur-Wirkungs-Beziehungen von Flavonoiden im CCID-Assay. By: Julia Eichsteininger; Promotor: Prof. L. Krenn, Department of Pharmacognosy, University of Vienna, Austria.

Diploma Thesis (2015) Charakterisierung von Phenylpropan-Verbindungen aus Scrophularia lucida. By: Tobias Ledermüller; Promotor: Prof. L. Krenn, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2015) Investigation of the effects of natural products on vascular smooth muscle cell proliferation. By: Daniel Nemetz-Fiedler; Promotor: Prof. Dr. Verena M. Dirsch, University of Vienna, Austria.

Diploma thesis (2015) Screening of leoligin derivatives as NF-kappaB inhibitors. By: Diyana Ogurlu; Promotor: Prof. Dr. Verena M. Dirsch, University of Vienna, Austria.

Master thesis (2015) Morphologische und anatomische Untersuchungen an Blütenelementen von Justicia secunda VAHL (Acanthaceae). By: Irene Putzer; Promotor: Ao. Univ.-Prof. Dr. Sabine GlasI-Tazreiter, Department of Pharmacognosy, University of Vienna, Austria.

Master thesis (2015) Phytochemische Untersuchungen von Leonurus sibiricus L. (Lamiaceae). By: Gudrun Schallauer; Promotor: Ao. Univ.-Prof. Dr. Sabine Glasl-Tazreiter, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2015) Abiotische Elizitierung einer transgenen "hairy roots" – Kultur des Edelweiß – *Leontopodium nivale* ssp. *alpinum* (Cass.) Greuter. By: Stefan Krumphuber; Promotor: Prof.B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2014) Isolierung und Strukturklärung von Substanzen aus *Pluchea odorata* (L.) Cass.; By Beatrix Hartl; Promotor: Prof.B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2015) Mikrovermehrung von *Lancea tibetica* Hook F. et Thoms. By: Sarah Osmen; Promotor: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.

Diploma thesis (2015) *Pluchea odorata (L.) Cass.* – Charakterisierung von Inhaltsstoffen einer Heilpflanze der Maya. By: Claudia Strauß; Promotor: Prof. B. Kopp, Department of Pharmacognosy, University of Vienna, Austria.



Diploma thesis (2015) Resistgance-modifying compounds in Semen Paradisi (Aframomum melegueta). By Birgit Bukovnik; Supervisor: Ao.Univ.-Prof. Dr. F. Bucar, University of Graz, Austria.

Diploma thesis (2014) Zingiber officinale – news to ingredients and their antimicrobial activity. By Dina Reischl; Supervisor: Ao. Univ.-Prof. Dr. F. Bucar, University of Graz, Austria.

Master thesis (2015). Synergistic effect of the combination between a thiosemicarbazone derived from Limonene and miltefosine against *Leishmania amazonensis*. By: D. B. Scariot; Promotor: Prof. C. V. Nakamura, Departamento de Ciências Básicas da Saúde, Maringá University, Brazil.

Master thesis (2015). Effects of dibenzylideneacetone derivates over *Trypanosoma cruzi*. By: F. Peron; Promotor: Prof. C. V. Nakamura, Departamento de Ciências Básicas da Saúde, Maringá University, Brazil.

#### **Editorial remark**

All contributions for the GA-Newsletter are welcome. Deadline for submission for the next edition is fixed to November 20<sup>th</sup> 2015. 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

