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



Message from the President



Dear members,

Publication of the second newsletter coincides with the end of my first term as GA president, looking back to the past two years actions, but also thinking about the future development of our society. It is a special honour and a privilege to begin my second term as president. I really hope to bring GA members together to make our science better, to expand and improve scientific training and mentorship at all levels, to provide venues for our members to share their findings and to establish important contacts to facilitate scientific exchange and collaboration. So, thank you for your continued support, and please do not hesitate to let me know what you think will make us even better. I need the help and suggestions of all of you to support the future activities of the GA.

I want to express my utmost gratitude to Professors M. Hamburger and V. Butterweck and all the other members of the organizing team of the 65th Annual GA Meeting in Basel. My sincerest congratulation for assembling such a successful annual meeting! You will find a detailed report meeting in this NL. This year numerous awards were donated by GA and included the Egon Stahl Award in Gold to Prof. R. Verpoorte, the Egon Stahl Award in Silver to Prof. A. Hunyadi, the Honorary membership to Prof. M.T.E. Khayyal, the Bionorica Phytoneering Award to Prof. A.K. Kiss and co-workers, the Dr. Willmar Schwabe Research Scholarship to Ms. D. Hammoud. This year GA has also generously sponsored seventeen travel grants for PhD students and three travel grants for post docs and poster awards. I heartily invite all the GA members to read the announcement in this NL to submit proposals for the next year awards and travel grants!

I also express my sincerest gratitude to the members of the ExC and Advisory Board step down for the great support in the past two years. A special thank to our charming secretary Dr. Birgit Benedek. During these years she has constantly represented the hearth of the society, a key element has dedicated a lot of time to GA with passion and hard work! Thank you from all GA members who have constantly appreciated your composed and gentle

Thank you to our past president Prof. M. Hamburger! I want to express here my special gratitude for his great contribution to a variety of tasks in the renovation of the GA and its future orientation. Special thanks to Prof. R. Bauer who had decided to step down as a member of the advisory board by the end of 2017. Rudi has served GA for a very long and fruitful period as a member of the advisory board, vice-president and president of GA exceptionally for three terms. I am glad he will continue to work for GA as president of our foundation "Plants for Health". I would like to remind the aims of the foundation and I auspicate an increasing number of donations to the foundation.

A huge thank you to all the other members who are no longer in the advisory board, namely Dr. C. Agyare, Prof. D. Csupor and Dr. G. Meng for their significant contribution to the GA activities.

I am happy that Prof. J. Rollinger as vice-president and Dr. Heba Aziz-Kalbhenn as secretary will join the executive committee. I cordially welcome the new elected members of the advisory board A. Kiss, C. Vissiennon, A. Hunyadi, K. Skalicka-Wozniak, and I would like to congratulate the re-elected board members. I am confident all the team will be promptly active in managing the growing tasks of GA actions.

This year GA has supported many events, I participated to the 21st International Congress "Phytopharm 2017" and 10th Anniversary of the TCM Research Center in Graz (Austria) from July 2nd to 5th. The meeting was very successful and a detailed report of this event is in this NL. On 13th October I took part to the Symposium dedicated to the memory of Prof. Dr. Dr. h. c. m ult. Fritz H. Kemper (Bonn, Germany). He was a very enthusiastic scientist with an impressive leadership and ability to motivate people. I also participated to the scientific workshop "Fevervew and parthenolide phytochemical, pharmacological and clinical evidence" on November 16th, in Vienna (Austria). It was very stimulating workshop, I would like to continue in the future this special format. A detailed report of this event is in this NL.

Now to the important news for 2018. The next 66th Annual Meeting will take place in Shangai, China from August 26th to 29th. This year the meeting will be jointly with 11th Shanghai International Conference on Traditional Chinese Medicine and Natural Medicines! Prof. D. Guo as chair of the organizing committee has written in this NL the announcement to give you some information on the congress and the program. The congress represent a unique occasion for all the members to present the



latest achievements in the field of medicinal plants and natural product research, but also to encounter different cultural visions in a friendly international atmosphere. Please read the announcement of the congress in this newsletter, and consult the congress website (www.ga2018.cn) for further details on this important event!

During the congress several awards will be donated from GA, the Egon Stahl Award in Bronze, the Dr. Willmar Schwabe-Award Award, and the Dr. Willmar Schwabe Research Scholarship. Announcements of the awards are in this newsletter and on the GA website. I encourage also the young members to apply for the travel grants, there were numerous opportunities for both PhD students and post-doc this year! Again I wanted to draw the attention of ALL GA members to these awards and prizes of our society. 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, or if you know of an outstanding young scientist that would be elegible for the

Egon-Stahl Award in Bronze. If you are a senior scientist from a lesser developed country, inform your PhD students of the Dr. Willmar-Schwabe Research Scholarship! And if you are one of our numerous young GA members from lesser developed countries, talk to your supervisor and explore with him a possible application. I can only repeat that this scholarship may be a unique opportunity for your career! Thus, I look forward to numerous applications.

look forward to numerous applications. GA will also co-organise several meetings, the "Phytopharm 2018" on June from 25th to 27th in Wädenswil (Switzerland) and "Phytotherapie- Kongress 2018" in Vienna (Austria) from May 31st to June 2nd. Please consult the GA website for further details! Finally, I would like to reiterate my invitation to all of you: submit manuscripts to Planta Medica and Planta Medica International Open! Our official journals thrive with the contributions of GA members. This year two important achievements for Planta Medica: the increased IF (2.34!) and recognition as Q1 journal in integrative and complementary medicine. Two important reasons to encourage all of you to further support publications in our journal. Congratulations to Prof. V. Butterweck and her staff for these successful goals. Moreover, I do confidence that the open access journal will also be embraced by the GA members! Additionally, I would like to remind to all GA members that a low rate online access to Planta Medica articles is available; I hope that this service will intensively be used and that more members will consider Planta Medica for the publication of their valuable results.

Thank you to Prof. A. Hensel for his great dedication and invaluable job as Editor of the NL. A special thought and sincere thanks to Prof. Pia Vuorela (Helsinki), editor of Planta Medica International Open, who passed away Sunday 1st October 2017 at the age of 56 years.

Let me close by wishing you all a happy, prosperous, and successful 2018!

Cordially,

Anna Rita Bilia, GA President

Notes from the Society



Deceased members

(to our knowledge)

Pia Vuorela, Turku, Finland, passed away on 1 Oct. 2017 in the age of 56 years. She had been GA member since 1985.

Erna Popp, Nürnberg, Germany, passed away on 6 Dec. 2017 in the age of 99 years. She had been GA member since 1953.

The Society will keep commemoration and offers its sincere condolence.

Obituary see this Newsletter



Editorial remark

All contributions for the GA-Newsletter are welcome.

Deadline for submission is fixed to May 25th 2018.

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



Status seminar of the future of GA

On the occasion of the annual meeting a status seminar was organised to discuss future activities and strategies of the society. Based on a member survey being open between 5th March and 21st May 2017, 185 members participated and told us, how they think about the society, its organisation, strategy and what should be improved. Overall, analysed data showed that 78.3% of responding members are happy to very happy with GA and 60.4% feel being well and very well informed. Most important research fields why members join GA and should be addressed in the future as well are Phytochemical Analysis (65.6%), Phytopharmacology (61.8%) and Pharmacognosy (53.6%). Recent upcoming research areas like Biotechnology, Computational Approaches do not play a major role (<20%).

Most favourite way of communication is still email (90.8%) followed by our website and the GA Newsletter. Other recent social media web services like Twitter, Instagram or Facebook still do not play a major role (<20%). About 69.5% of all responders think that GA achieves its goals as a truly international organisation and will act as a platform for scientific exchange. Besides of this positive result main criticism is addressed to the Euro centralised focus and there is a wish for more members on both boards coming outside of Europe. Especially engagement of young researchers is still an issue and only 55.4% think that GA is performing well here. To improve the situation 76% of all suggest to work on networking events and to provide more information on funding what may bind more young researchers to GA.

From the survey turned out that responding members want more internationalisation with more activities outside Europe especially in Africa. Some suggestions recommend voting of the president and board members by Internet to be more transparent and allow more true democracy. The reputation of our journal Planta Medica is considered excellent and complimentary access for members is a suggestion. The demand for more reduced registration fees even for members coming from low income countries has been mentioned as

During the status seminar these questions have been discussed. Without providing final solutions the overall opinion was that for instance financial matters of Planta Medica cannot be discussed in the board and the Executive Board should look closer how the society can strengthen their activity outside Europe with strategic action plans (e.g. Network for Africa, participation of GA in EU calls). Web based communication and voting must be evaluated in the future. Here, our webinars have an excellent response rate and modern communication services have to be evaluated by the Executive Board.



As Executive Board member I am very happy and confident that GA attracts high interest and awareness in our society is high. With all future challenges we have to face in a changing environment where commercial conference organizers, new faction societies and very high diversity in former streamlined research, I am convinced GA is doing well and we understand our core business. Of course, all criticism provokes us to be better. The Executive Board has learned a lot from the survey and the seminar why we want to install it as constant communication tool at future meetings. But listening once a year is nice but not enough why we ask you to communicate as soon as any burning issue is keeping you busy.

Prof. Dr. Oliver Kayser, University of Dortmund, Germany

Some Data from the Membership Data Base

New GA members

Since May 2017 the following 58 members have joined our Society.

Anastasia Agapouda, Switzerland; Nneka Akwu, South Africa; Mohamed Alajmi, Saudi-Arabia; Oluwakemi Ariyo, Nigeria; Karin Berger Büter; Switzerland; Sumana Bhowmick; Great Britain; Daniel Boamah, Ghana; Steffen Breinlinger, Germany; Brillatz, Théo Switzerland; Bussmann, Germany; Jiha Byun, South Korea; Onyedika Chukwuma, Germany; Phu Dang, Vietnam; Niranjan Das, India; Ali EL-Hagrassy, Egypt; Sherif Elshahawi, USA; Marycolette Ezediokpu, Germany; Ibukum Famuyide, South Africa; Mohammad Omar Faruque, Bangladesh; Maira Fonseca, Portugal; Laurent Gheller, Switzerland; Thomas Goels, Austria; Verena Hiebl, Austria; John Igoli, Nigeria; Aakanchha Jain, India; Sourabh Jain, India; Mohammed Abdullah Jainul, Malaysia; Seul A Jin, South Korea; Ripu Kunwar, Nepal; Allan Patrick Macabeo, Philippines; Bishnu Marasini, Nepal; Aminu Mohammed, Nigeria; Maryam Mosaffa-Jahromi, Iran; Julia Moschny, Germany; Dulcie Mulholland, Great Britain; Monica Mame Soma Nyansa, Ghana; Patrick Okwany, Uganda; Barbara Pacchetti, Switzerland; Felipe Penagos-Tabares, Austria; Jakob Reinhardt. Switzerland: Muhammad Riaz. Pakistan; Stefan Schönbichler, Austria; Krystyna Skalicka-Wozniak, Poland; Nikolaos Tsafantakis, Greece; Irvin Tubon, Italy; Mary Twumasi, Ghana; Gabriela Liseth Vaca Altamirano, Italy; Veronika Vallion, France; Sundaresan Velusamy, India; Amita Verma, India; Jelena Vladic, Serbia; Dongdong Wang, China; Qiyan Wang-Müller, Switzerland; Eric Woith, Germany; Reza Zadali, Iran; Silvia Zambrana, Bolivia; Zoltán Péter Zomborszki, Hungary; Julia Zwirchmayr, Austria

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. Birgit Benedek, GA Secretary



The administration of our Society at Work ...



The Executive Board and the Board of Directors during a long day discussion meeting on the future directions of the society, the day before the annual GA meeting in Basel, Switzerland.

Obituary: Pia Maarit Vuorela (née Härmälä) 1961–2017

We are tremendously saddened to inform the community that Pia Vuorela, Professor of Pharmaceutical biology, passed away on the 1st of October 2017, after a several years lasting struggle with cancer, at the age of 56 years. Our memory of her remains as of one who was brimming with vitality, brilliance and wit. Her warm, yet fiercely independent and determined personality together with her influential scholarship attracted students and colleagues from around the University of Helsinki, and indeed around the world. We will miss her deeply.

Pia Vuorela was born on the 3rd of March 1961 in Vasa, Finland and got her Swedish-speaking matriculation examination in May 1980 as her basic education in Närpes Gymnasium in Österbotten. She graduated in May 1988 as a Master of Pharmacy (Pharmacognosy) and in November 1991 as a Ph.D (Pharmacognosy) at the University of Helsinki. Pia also acquired training in leadership, courses offered to university professors in leading positions, and also extensive training in university pedagogics.

Pia served several positions during the years 1991–2005 in the University of Helsinki. To mention a few, as a university lecturer, chief research scientist and director of the Research Center of Department of Pharmacy. She also served as the Responsible director of a pharmaceutical wholesale company, Instrumentarium/Medino-

vum in the years 1995–1996. During the years 1999–2013 she had a close relationship to FIMEA, the Finnish Medicines Agency, being a consultant and member/vice chair of the pharmacopoeia-committee appointed by the Ministry of Social Affairs and Health Care.

While being fully bilingual in Swedish and Finnish, Pia was appointed in August 2005 as a Professor of Pharmaceutical Chemistry into Swedish-speaking Åbo Akademi University. She was the Head of the discipline (Pharmaceutical sciences) during the years 2006–2012 and the Vice-director of the Department of Biosciences during the years 2010–2012. During that period she actively developed the Swedish-speaking education in pharmacy.

In 2013 Pia got a Professorship in pharmaceutical biology in the Faculty of Pharmacy, Division of Pharmaceutical Biosciences and in 2014 she was appointed as a Vice Dean (education and bilingualism).

During all the years, close to Pia's heart was being involved in teaching, development of teaching and supervision of bachelor, master and doctoral training levels, especially in the pharmacy curriculum. The main disciplines were pharmaceutical microbiology, pharmaceutical chemistry, pharmacognosy and pharmaceutical biology. During the years, Pia produced several teaching books, e-material, developed



teaching methods and was responsible for several compulsory and optional courses, as well as laboratory courses.

Pia Vuorela educated nearly 30 doctoral students and 10 post-doctoral researchers. They could always count on Pia's support and imagination when facing problems. She was especially driven to relentlessly help students and encourage them to always aim higher in their scientific careers. Pia published about 150 publications. She had a great skill to present her ideas so that they were very attractive in order to obtain research funding. She was also charming and spirited in her ability to collaborate and engage with colleagues all over the world. All her students and colleagues feel her absence tremendously.

Pia Vuorela was highly collegial and actively joined many university and academic bodies in Finland, Nordic countries and Europe. She was during the years 1989–1997 a member and a chairperson of the Phar-



macy Club for Swedish speaking pharmacists in Finland. Equally she acted during the years 1995-2006 as a board member/ vice-president/president in The Finnish Pharmaceutical Society that was also the member of the Federation of Finnish Learned Societies. Noteworthy is also her active engagement in European Federation for Pharmaceutical Sciences (EUFEPS) during the years 1996-2009 as a council member, internal auditor, executive committee member and vice-president. In all these bodies Pia was always enthusiastic, supportive, flexible and the person who wanted to find a solution that would carry the case or problem forward and be accepted by all.

Pia was awarded several times: Albert Wuokko award in the year 1992: For noteworthy work for the benefit to Finnish Pharmaceutical sciences by Finnish Pharmaceutical Society. Highest ranking Finnish doctoral candidate in the year 1994: Promotio Ordinis Philosophorum Universitatis Helsingensis MCMXCIV. Albert Wuokko Award in the year 2011: For Noteworthy work for the benefit of Finnish Pharmaceutical sciences by Finnish Pharmaceutical Society. This was for the first time that the Albert Wuokko Award was nominated twice for the same nominate, first as a junior and then as a senior.

In the last years Pia Vuorela was eagerly immersed in many projects, including strengthening Swedish-speaking education in the Faculty of Pharmacy, planning books, and not to mention several academic projects.

Pia's work was her great hobby. She could, however, often spare time for organizing parties at home to friends, family and of course to colleagues. She enjoyed good food and wine, but liked when someone else prepared it. Champagne with strawberries was always a great start in these activities.

She is survived by her friends, family and her son, Paul.

Adyary Fallarero Heikki Vuorela

Obituary: In memoriam Erna Popp, Last of the founding members of GA

Pharmacist/decorated with the Federal Cross of Merit (Bundesverdienstkreuz)

* October 7th, 1918 † December 6th, 2017 (1918 – 2017)

With Erna Popp we are losing an extraordinary personality that significantly shaped the history of success of the company Bionorica SE.

With her expertise, commitment, entrepreneurial aptitude and cordial modesty, she built up the small company of her father together with her brother Hans after the Second World War. With a lot of energy and perseverance she laid ground for the history of success of Bionorica SE in those first years.

She was a pharmacist par excellence, with high requirements to the pharmaceutical quality in her fields of responsibility: quality control/analytical development and production of medicinal products. She was diligent and exact and laid the ground for a very high quality standard for the given time. She was open-minded and very interested in research and development and implemented innovative new analytical methods in her quality control laboratory (e.g. during the 80ies HPLC analysis).

This fundamental interest also showed in her being one of the first 50 members of GA after the foundation of the society in the year 1953. Her membership number was 1000042. GA was her "pharmaceutical home" and she remained faithful to GA until her death, for nearly 65 years. For this continuous support of the GA and her achievements with regards to application of her expertise to secure the availability of high quality herbal medicinal products, she was honoured by GA on the occasion of her 70th birthday in 1988. She was very pleased by this honour - although it might not have showed, as she was very modest and rather avoided the limelight...

At the end of 1988, she retired, laying the leadership of the company into the hands of her nephew, Prof. Dr. Michael Popp.

Erna Popp was a warm, kind person, always caring for every one of her colleagues, always modest, never wanting to be in the focus of attention.

For Michael Popp and many colleagues she was, is and will remain role model and



leading personality. Her interest in research on medicinal plants also strongly influenced her nephew Prof. Dr. Michael Popp who lives for research, has actively worked for GA in the managing board of the society and has ever since released his employees from work to be able to support GA.

The GA will keep Erna Popp in honorary memory as a treasured and valuable member of many years.

Dr. Gudrun Abel Forchheim, Germany

Announcement of the Egon Stahl-Award in Bronze 2018 of the Society for Medicinal Plant and Natural Product Research (GA)



On the occasion of his 60th 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 field of Pharmacognosy (Pharmaceutical Biology) and Analytical Phytochemistry.

The bronze medal and an award of € 1.500 is given to young scholars up to the age of about thirty whose thesis are of outstanding quality.

In 2018 the Egon Stahl Award in Bronze will be given in a ceremony during the 66th International Congress and Annual Meeting of GA in Shanghai (China), August **26–29, 2018.** The award-winning scientific results shall be presented during the congress in a lecture of 30 minutes.

Members of the Society for Medicinal Plant and Natural Product Research are invited to submit nominations for candidates, together with supporting data. A nomination for the prize (self-nominations will not be considered) should include a motivation letter explaining the significance of the scientific achievements of the candidate, a curriculum vitae of the candidate, an index on his/her publications, and reprints of his/her most significant publications.

Deadline for submissions for the Egon Stahl-Award 2018 is **March 15, 2018**.

November 2017, Prof. Dr. Anna Rita Bilia, GA President

Documents are to be sent in electronic form, attached to an email to: Prof. Dr. Anna Rita Bilia, Department of Chemistry, University of Florence, I-50019 Sesto Fiorentino, Florence, Italy. e-mail: ar.bilia@unifi. it

Announcement of the Dr. Willmar Schwabe-Award 2018 by the Society for Medicinal Plant and Natural Product Research (GA)



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 phytotherapeutical and phytopharmaceutical problems in an interdisciplinary approach, in order to support the evidence-based use of natural products.

Scientists and research groups of universities and other non-commercial scientific

institutions are entitled to apply. Up to three relevant scientific publications on a specific topic which have been published during the last three years can be considered. They must be submitted together with CV(s) and list(s) of publications, along with an accompanying document explaining the significance and relevance of the submitted publications in the broader scientific context. Deadline for submissions for the Dr. Willmar Schwabe Award 2016 is February 28th, 2018.

The Dr. Willmar Schwabe Award will be bestowed in a ceremony during the 66th International Congress and Annual Meet-

ing of GA in Shanghai (China), August 26–29, 2018. The award-winning scientific results shall be presented during the congress in a lecture of 30 minutes.

November 2017, Prof. Dr. Anna Rita Bilia, GA President

Documents are to be sent in electronic form, attached to an email to: Prof. Dr. Anna Rita Bilia, Department of Chemistry, University of Florence, I-50019 Sesto Fiorentino, Florence, Italy. e-mail: ar.bilia@unifi. it



Announcement of the Dr. Willmar Schwabe Research Scholarship 2018 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 €

Objective: The aim of the Dr. Willmar Schwabe Research Scholarship for Young Scientists is to support young scientists, especially from developing countries, in a research attachment to a leading research institution. 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. Duration of the attachment of at least 6 months is mandatory.

Criteria for Application

- Advanced PhD students(year 2 onwards), 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 (postdocs) 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 infrastructure 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

The Dr. Willmar Schwabe Research Scholarship for Young Scientists will be bestowed in a ceremony during the will be granted during the 66th International Congress and Annual Meeting of GA in Shanghai (China), August 26–29, 2018. 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 is 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 of submissions for the 2017 announcement is **February 28**th **2017**.

November 2017, Prof. Dr. Anna Rita Bilia, GA President

Applications are to be sent in electronic form, attached to an email to: Prof. Dr. Anna Rita Bilia, Department of Chemistry, University of Florence, I-50019 Sesto Fiorentino, Florence, Italy. e-mail: ar.bilia@unifi. it

Dedication of Planta Medica Special Issue to Professor Dr. Max Wichtl



Since some years Planta Medica is publishing Special Issues dedicated to eminent scientists in the field of natural products research. This year such a Special Issue was prepared to honor Prof. Max Wichtl for his contributions to cardenolide research, and for his immensely popular handbook "Herbal Drugs and Phytopharmaceuticals" (German title "Teedogen und Phytopharmaka"). A copy of the Special Issue was given to Prof. Wichtl during the Award Ceremony by the Issue Editors Profs. Brigitte Kopp and Judith Rollinger, and the Editor-in-Chief Prof. Veronika Butterweck.



Egon-Stahl-Award in Gold of the Society for Medicinal Plant and Natural Product Research for Prof. Dr. Robert Verporte, Leiden



The Egon Stahl Award in Gold is the highest and most prestigious scientific honour of the Society for Medicinal Plant Research (GA). The ESA in Gold acknowledges the outstanding scientific lifetime work of a research scientist who has been closely linked to Pharmaceutical Biology (Pharmacognosy, Chemistry of Natural Products), through his or her scientific career. A gold medal and 5,000 € awarded to the recipient.

Laureate of this year's ESA Gold is Prof. Dr. Robert Verporte of the University of Leiden, NL!

Prof. Robert Verporte received a Master's degree in pharmaceutical sciences in 1970 and graduated in Pharmacy in 1972 at the University of Leiden. In the same year started his PhD course, discussing his thesis on pharmacologically active compounds from Strychnos species in 1976. He was firstly a lecturer at Leiden University and became professor at the department of Pharmacognosy in 1987. His excellent professional reputation together with an agreeable, his decisive personality led him into a great number of situations in which he not only represented his own field with absolute competence but also kept an eye on the entire field of pharmacy and its scientific and practical aspects. From 1993 to 1997 he was Dean of Education of the Center for Bio-Pharmaceutical Sciences at Leiden University. From 2003 to 2011 he was head of the department of Pharmacognosy/Plant Cell Biotechnology, section Metabolomics, IBL, at Leiden University and from May 2011 he is an Emeritus Professor, Natural Products Laboratory, IBL, Leiden University He is author of more than 725 scientific papers, 4 books and 7 patent applications and has given 15-20 invited lectures per year in the past 15 years. The 2017 H factor is rated 61 (Web of Science), 84 (Google Scholar) and 67 (Scopus).

He has strengthened and supported Pharmaceutical Biology as a member of the Editorial advisory board of a number of journals in the field, and was Editor and Editor-in-Chief of the Journal of Ethnopharmacology, Editor-in-Chief of Phytochemical Reviews. Executive editor of Biotechnology Letters, and chairman of the Organizing Committee of the Joint meeting of the ASP, AFERP, GA and PSE in 1999. By honouring Prof. Verporte with the ESA in Gold, GA express its great esteem for him personally and for his extraordinary scientific personality. Personally, I appreciate his 'Dutch charm' and not only because he fits the typical stereotype (tall, with blond hair and blue eyes) but also for his courtesy, tolerance, and open and international orientation, while being modest and avoiding ostentatiousness. During his academic career, he was invited as guest professor to London (UK), Uppsala (Sweden), Amiens (France), Reims (France), Seoul (Korea), Kuala Lumpur (Malaysia) and Hilo (USA). Not surprisingly, he has already received several distinctions: Dr. honoris causa of the University of Amiens, France (2004), and of University of Uppsala, Sweden (2012). In 2007 he received the Phyto-

And his scientific production is absolutely fascinating and has resulted in more than 750 peer-reviewed publications. In addition, these publications have very often been cited: between 1965 and 2017, 15653 times, which is an average of 333 citations per year! Prof. Verpoorte's teaching career in the field of pharmaceutical biology and pharmacognosy was always been competent and constant, with 66 PhD students having accomplished their doctorate under his supervision.

chemical Society of Europe Medal.

But I consider Prof. Robert Verpoorte first class for the originality, novelty and diversity of the research work he has conducted throughout his carrier.

Consistently novel methods have been reported from his laboratory, including the recently described Natural Deep Eutectic



Solvents systems. He was one of the first scientists to introduce metabolomics to plant sciences, and thus has truly influenced the development of the field. His topics range from biosynthesis of natural products at biochemical and genetic level, genetic engineering, plant cell culture, metabolomics, and new isolation/purification methods for natural products. Throughout his work innovative aspects have played a major role, and led to major breakthroughs, like the heterologous expression of the plant metabolite strictosidine.

With immense pleasure, GA has decided to bestow the Egon-Stahl-Award in Gold 2017 to you, Robert! This award honours outstanding researchers in the field of natural product research for their lifetime achievements and throughout your career you have been a pioneer in numerous aspects related to natural products, and a most prolific and internationally visible scientist. Congratulations!

Anna Rita Bilia, President of GA

Egon-Stahl-Award in Silver of the Society for Medicinal Plant and Natural Product Research for Prof. Dr. Attila Hunyadi, Szeged, Hungary



In 1985, on the occasion of his 60th birthday, Professor Dr. Dr. h.c. mult. Egon Stahl donated a medal, certificate and a monetary prize in order to recognize and promote distinguished young scientists working in the field of Pharmacognosy (Pharmaceutical Biology) and Analytical Phytochemistry. The silver medal and an award of 3,000 euros is given to a scientist, up to the age of forty, who has published outstanding scientific work in the years following his or her university graduation.

The 2017 Silver Medal was awarded to Prof. Dr. Attila Hunyadi.

He has been an Associate Professor in Pharmacognosy since 2016 at the University of

Szeged, Hungary. After taking a Pharmacist degree at the University of Szeged, in 2007, he obtained his PhD in Pharmacognosy *summa cum laude* with the thesis entitled "*Serratula wolfii*, as a promising source of ecdysteroids". For this study he received the 1st Prize from the Hungarian Chemical society. In the same year, he obtained a Post-doc fellow-



ship from the National Science Council in Taiwan and developed the first synthesis of protoapigneone, an anticancer compound. In 2015 he achieved the certification for a teaching position. In 2016, he gained the highest award in Hungary that honours young scientists for outstanding achievements in the field of natural product research. During his career, he has developed an important network of international collaborations and, particularly, has played a key role in developing a dual degree program with co-supervision of the thesis between Taiwan and his lab. His scientific achievements are reported in 50 top quality international publications in the best journals for his sci-

entific area, 13 book chapters, and 39 presentations in international congresses. The award was given by the President of GA, and Prof. Dr. Attila Hunyadi delivered a lecture on the second day of the congress.

Anna Rita Bilia, President of GA

Honorary Membership of GA to Prof. Dr. Mohamed Taky El-Din Khayyal

The Society for Medicinal Plant and Natural Product Research (GA) appoints meritorious members as Honorary Members. During the 2017 Annual Congress of GA, Prof. Dr. Mohamed Taky El-Din Khayyal, Cairo, Egypt, was awarded with the Honorary Membership.

Prof. Dr. Mohamed Taky El-Din Khayyal is emeritus Professor of Pharmacology, Faculty of Pharmacy, at the Cairo University and Academic Counsellor for Pharmacy and Biotechnology, German University in Cairo, was born in Cairo on October 26th 1937. He attended Victoria College in Alexandria from 1943 till 1954 from which he obtained the Oxford and Cambridge School certificates. He obtained his Bachelor of Pharmacy degree in 1958 from Alexandria University. He started his academic career as a student demonstrator in Pharmacology at the Faculty of Medicine, Cairo University in 1959, then was granted a State Scholarship to attend a Ph.D. course in Pharmacology abroad. Late in 1959, he left to Germany, where he spent 6 months at the University of Hamburg, then 6 months in Mainz, where he had the privilege to work in the labs of the late Prof. G. Kuschinsky under his direct supervision. Late in 1960 he joined the Pharmacology Department at the School of Pharmacy, London University (the Square) late in 1960 and studied in a wealthy scientific entourage of eminent pharmacologists, including G. B. West, W. C. Bowman, M. Barrett, P. S. J. Spencer, A. Cuthbert, B. A. Callingham and others under the supervision of Prof. G. A. H. Buttle. After obtaining his Ph.D. in September 1964, he stayed on for a further 6 months on a post-doctoral grant from the WHO, before returning home to Cairo in March 1965 to take up the post of Lecturer in Pharmacology at the Faculty of Pharmacy, Cairo University. Since his return to Cairo, MTK helped in establishing the Department of Pharmacology at the Faculty of Pharmacy, initially as a senior member of staff, then eventually as Head of Department, when he was appointed as Professor in 1976. MTK headed the Dept. for nearly 17 years and spent 6 years as Vice-Dean of the Faculty. During his tenure of Professorship, MTK helped to establish other Departments of Pharmacology in





other Universities in Egypt (Mansoura) and the Arab world, e.g. Aleppo (Syria) and Amman (Jordan). He was a recipient of Fellowships from the Alexander von Humboldt Foundation, (1978), and Fulbright Foundation (1987). He received his training as a pharmacologist at the Universities of Hamburg, Mainz and London. Presently, he is President of the Egyptian Society of Pharmacology and is an active member of many international scientific societies, including GA. He has also served for almost 20 years as a consultant to the Egyptian Ministry of Health on various drug regulatory Committees as well as to local Pharmaceutical companies. In July 2002, he was elected to the Executive Board of the International Union of Pharmacology (IUPHAR) and remained in the board until 2010. Mohamed is a great friend and his hospitability is famous. He has invited hundreds of guests from the scientific world to his institute in Cairo and to his home, thus contributing not only to scientific exchange but also to furthering personal contacts among individuals.

Honorary membership is bestowed to Prof. Khayyal in recognition for his important modern developments of molecular and pharmaceutical biology, for promoting *in-vivo* studies of natural products, and for contributing to the scientific reputation of GA meetings over the years, building bridges from other disciplines and drawing in many of his students and co-workers as GA members.

Anna Rita Bilia, President of GA

Thieme Award 2016 for the most innovative *Planta Medica* Original Paper

Planta Medica

Journal of Medicinal Plant and Natural Product Research

During the GA meeting in Basel, it was the fifth time that the Planta Medica best paper award, sponsored by Thieme, was presented to the most innovative contribution in the previous year. This year, the Editors of Planta Medica have chosen the publica-

tion "Activities and prevalence of Proteobacteria members colonizing Echinacea purpurea fully account for macrophage activation exhibited by extracts of this botanical" by Mona H. Haron, Heather L. Tyler, Nirmal D. Pugh, Rita M. Moraes, Victor L.



Maddox, Colin R. Jackson and David S. Pasco as the "most innovative paper" published in Planta Medica in 2016 (Planta Med., 2016, 82(14):1258-65).

In their outstanding contribution, the authors could demonstrate that the activity of *Echinacea pupurea* extracts is due to the occurence of *Proteobacteria* colonized with the raw plant material. These findings provide new insights into the selection but also the efficacy of the *Echinacea purpurea* raw material for the use against respiratory infections since ingestion of bacteria (probiotics) is reported to have a protective effect against this health condition. Dr. Nirmal Pugh from the National Center for Natural Products Research in Oxford, Mississippi, USA, accepted the award on behalf of all authors.

Prof. Dr. V. Butterweck, Editor-in-Chief, Planta Medica

Minutes of GA Members Meeting 2017

Protocol of the GA Members Meeting 2017

The Members Meeting took place during the annual congress in Basel on 5 Sept. 2017 from 6.15 – 8.10 p.m. 152 GA members attended the meeting.

1. Approval of the Agenda

President Prof. A.R. Bilia welcomed all participants. The agenda, published in the GA Newsletter 1-2017, was unanimously approved.

2. Approval of the Protocol of the Members Meeting 2016

The minutes of the previous Members Meeting on 25 July 2016 in Copenhagen, published in the GA Newsletter 2-2016, were unanimously approved.

3. Annual reports

3.1. Report of the President Prof. A.R. Bilia

She was in exchange with M. Hamburger and V. Butterweck regarding the 2017 GA meeting, and with the chairs of the future GA meetings in 2018 (Shanghai) and 2019 (Innsbruck). She coordinated the nomination of the new GA Honorary Member Prof. Khayyal. She contributed to the selection of oral communications for the annual congress in Basel and to the organization of the Presidential Lunch, and she was in contact with the new chair of the Regulatory Affairs Workshop Dr. W. Knoess. She was a member of the committees for the selection of the GA awards 2017.

She wrote a letter to support "a post-graduated education in veterinary phytotherapy" in the USA on behalf of the GA Animal Health Network. She attended a press conference organised by KFN in Munich on 7 Dec. 2016 together with R. Bauer the foundation "Plants for Health". She attended a pre-conference meeting for the Phytokongress 2018 in Vienna (8 March 2017 in Düsseldorf) and as in continuous exchange with the scientific committee. J. Gertsch and O. Kayser were nominated as speakers by GA. She gave the welcome address during the symposium on occasion of the 60th birthday of Prof. R. Bauer, "Medicinal Plant Research in the 21st Century - Pharmacognosy, quo vadis?" in Graz on 30 Sept. 2016. She participated on behalf of GA in the 5th International Conference on the Modernization of Traditional Chinese Medicine in Chengdu in October 2016. She attended the Thieme meetings in Stuttgart on 11 Nov. 2016 and in Vienna on 20-21 July 2017 where the impact factor, future special issues, reviews and marketing were discussed.

She wrote contributions for NL. She was in contact with Prof. W. Blaschek and Prof. A. Hensel regarding the "Bündnis Phytotherapie". She was in exchange with the GA secretary and M. Hamburger regarding the updating of the GA website.

She revised abstracts for the Phytopharm meeting in Graz, gave the welcome address and a lecture; and she was in contact with the organisers of Phytopharm 2018. She participated on behalf of GA in the VITA-FOOD in Geneve on 10 May 2017. She was in contact with the partners of the European

proposal; the week after the GA congress the third transnational meeting will take part in Romania. She was in contact with the organisers of the workshop "Feverfew and parthenolide – phytochemical, pharmacological and clinical evidence" which will be held in November 2017 in Vienna. She was in contact with the organisers of the 7th Mistletoe Symposium.

She informed that Prof. F. Kemper passed away on 28 March 2017. Prof. T. Schmidt attended the funeral on behalf of GA. A.R. Bilia wrote a condolence letter to his family, and she will participate in a symposium in honour of Prof. Kemper in Bonn on 13 Oct. 2017.

3.2. Reports of the Vice-Presidents

Report of Vice-President Prof. M. Hamburger

As chair of the Organizing Committee for the 2017 Annual Congress in Basel, he coordinated all preparations for the conference. As head of the Award Committee, he prepared the announcements and coordinated the review process of applications.

Report of Vice-President Prof. O. Kayser He coordinated the working groups "Communication" and "European Affairs". He prepared and evaluated the survey "Future of GA".

3.3. Report of the Secretary Dr. B. Benedek

She organised, attended and documented the ExC and BoD meetings during the last year.



She presented the members statistics: GA currently has 1314 active members (members paying regular fee: 631, members paying reduced fee: 612, company members: 30, honorary members: 9, waived fees due to more than 40 years membership: 33). In addition, 139 new members have registered, but have not yet paid their fees (= preliminary members). The total number of members (active + preliminary) amounts to 1453 (2016: 1346, 2015: 1225, 2014: 1190, 2013: 1477, 2012: 1339). Four members have reached 40 years of membership in 2017 (W. Barz, Germany; M. Wink, Germany; B. Meier, Switzerland; G. Tittel, Germany).

She briefly reported about the new membership software. The membership administration is much easier now with automatic generation of welcome mails for new members, membership confirmations and cancellations. As a next step the implementation of a membership portal is planned.

She informed that she will terminate her activity as Secretary of GA at the end of the year, and thanked all members for their confidence.

3.4. Report of the Treasurer Dr. U. Reusner

She reported about the current financial situation of GA: The total assets of GA currently amount to 160,325 EUR (therof cash: 116,641 EUR). The Egon Stahl fund currently amounts to 54,483 EUR (thereof cash: 5,352 EUR). She presented the budget report of 2016 and the budget plan for 2017. Planta Medica online subscriptions: 10 members have subscribed to PM online back to 1998, 13 members back to 1953.

3.5. Discharge of the Executive Council

Prof. E. Stahl-Biskup presented the reports of the cash auditors (Dr. B. Frank and Prof. E. Stahl-Biskup). According to the reports the expenses and revenues were plausible and appropriate, and both auditors expressed their compliments for a good accounting and cost awareness.

Prof. Stahl-Biskup therefore asked for the discharge of the ExC which was accepted unanimously by the whole assembly.

4. Report of the Editor-in-Chief of Planta Medica Prof. V. Butterweck

Prof. Butterweck presented key figures and facts regarding Planta Medica and Planta Medica International Open. The impact factor for 2016 is 2.34. Thomson Reuters has accepted to rate PM as Q1-journal in integrative and complementary medicine. The average turnaround time from submission to first decision (by regular editors) is 28 days. It takes less than 15 days from article acceptance to e-first publication.

The following special issues are planned for 2017/18: nanotechnology (A.R. Bilia), Max Wichtl special issue (B. Kopp, J. Rollinger), Cannabis (J. Gertsch), quality control (I. Khan, S. Glasl).

A new layout was introduced in 2017. Color figures are free of charge in the print version, and multimedia files are now accepted.

The newsletter also has a new layout. A blue box is included where all the special issues with direct free access are listed. The new website is still under construction. She presented the Thieme-Enago language editing services which provides journal authors access to high-quality language editing services. Thieme authors get 20% discount.

At the end she presented ten good reasons to publish in Planta Medica and encouraged all GA members to publish in Planta Medica ("a journal from members for members").

5. Report of the Working Groups

• Communication (chair: O. Kayser)

Prof. Kayser reported about the Wikipedia entry about GA and briefly informed about the outcome of the survey "Future of GA". A detailed presentation together with a discussion among all interested members followed on the day after the members meeting.

Awards (chair: M. Hamburger)
 Three awards were announced in 2017, namely the Egon-Stahl-Award in Gold and Silver, the Dr. Willmar-Schwabe Research Scholarship, and the Bionorica Phytoneering Award.

The ESA Gold was given to Rob Verpoorte, the ESA Silver to A. Hunyadi, the Dr. Willmar-Schwabe Research Scholarship for Young Scientists to Dima Hammoud, and the Bionorica Phytoneering Award to Anna Kies

- Young Researchers (chair: R. Fürst) Prof. R. Fürst presented the activities of the working groups, namely the travel grants and the organisation of the Young Researchers Workshop which was again very successful.
- European Affairs (chair: O. Kayser) The Working Group is currently preparing a COST application to establish a network on new innovative analytical techniques for characterization of herbal medicines.
- Africa Research Network (chair: C. Agyare)

Dr. C. Agyare briefly informed about the network. The basic idea is to promote and improve collaboration among African GA members and their counterparts from the economically developed countries, especially from Europe.

 Congresses and Workshops (chair: A.R. Bilia)
 See topic 8.

6. Foundation "Plants for Health"

Prof. M. Heinrich and Prof. A. Hensel presented the current activities of the foundation. The annual meeting of the Foundation Board took place on 26 June 2017. This year the second research award with up to 2.000 EUR will be advertised during the annual congress in Basel. Last year's awardees will present their work during the congress (M. Hanafi, London; S. Khalid, Khartoun, South Africa). At the end both concluded that further dissemination is needed. Distribution of the brochure by every

GA member is welcome (download from the website of the foundation a/o copies are available from B. Röther).

7. Elections of the Board of Directors Dr. B. Gehrmann coordinated the elections.

7.1. Election of the President Candidate: A.R. Bilia (134 votes)

7.2. Election of the two Vice-Presidents Candidates: O. Kayser (126 votes), J. Rollinger (124 votes)

7.3. Election of the Secretary Candidate: H. Abdel-Aziz (139 votes)

7.4. Election of the Treasurer Candidate: U. Reusner (141 votes)

7.5. Election of the Advisory Board

- Candidates for Regular Positions
 C. Agyare, A. Braca, D. Csupor, E. Ferreira
 Queiroz, R. Fürst, N. Fokialakis, M. Heinrich, A. Hensel, I. Khan, A. Kiss, G. Meng,
 J. Sarkodie, D. Tasdemir
 Outcome: R. Fürst (91 votes). D. Tasdemir
- Outcome: R. Fürst (91 votes), D. Tasdemir (81 votes), M. Heinrich (81 votes), N. Fokialakis (74 votes), A. Hensel (73 votes), A. Kiss (67 votes)
- Candidates for Junior Positions
 A. Cheilari, S. Granica, A. Hunyadi, K. Skalicka-Wozniak, C. Vissiennon
 Outcome: C. Vissiennon (76 votes), A. Hunyadi (66 votes)

8. Future Congresses, Symposia and Workshops

8.1. Annual GA Congresses

• 2018: Shanghai, China (organiser: D. Guo)

Prof. A.R. Bilia briefly reported about the current status of the congress preparations on behalf of Prof. D. Guo.

2019: Innsbruck, Austria (organiser: H. Stuppner)

Prof. Stuppner gave a brief overview about congress venue, programme and social events

8.2. Co-organised meetings

- Phytopharm 2018, 25–26 June 2018, Wädenswil, Switzerland
- Feverfew and Parthenolide Phytochemical, Pharmacological and Clinical Evidence, 16 Nov. 2017, Vienna, Austria
- Joint Phytotherapy Congress 2018, 31 May – 2 June 2018, Vienna, Austria
- 7th Mistletoe Symposium, 7–9 Nov. 2019, Nonnweiler, Germany

9. Miscellaneous

No further contributions.

B. Rundle Dr. Birgit Benedek

Neunkirchen am Brand, 3 Nov. 2017



65th Annual Meeting of GA in Basel, Switzerland

The 65th Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA 2017) took place in Basel, Switzerland, from 3rd to 7th September, 2017. Some 650 participants from 30 countries gathered for the conference which was held at the Congress Center Basel.

The conference program started on Sunday 3rd September with a Satellite Symposium on Veterinary Medicine organized by Michael Walkenhorst, the Regulatory Affairs Workshop chaired by Werner Knöss, and the 11th Young Researchers Workshop chaired by Anna Karioti and Robert Fürst, and co-chaired by Alessandra Braca and Jürg Gertsch. The Veterinary Medicine Symposium addressed three main topics, namely the science and practice of veterinary phytotherapy, ethnoveterinary medicine, and animal self medication. The Regulatory Affairs Workshop had a specific focus on the situation in Switzerland, with contributions from Swissmedic, the phytopharmaceutical industry, and from academia. The Young Researchers Workshop opened with an impulse lecture by Krystina Skalicka-Wozniak, followed by a Meet-the-Expert session and ten selected short lectures.

On Sunday evening the traditional Get-together Party was held in the Foyer of the Congress Center. The Main Congress began on Monday morning with the traditional opening and award ceremony. The Vice-Rector of Research of the University of Basel. Prof. Edwin Constable, and the Director of the School of Life Sciences, FHNW, Prof. Falko Schlottig, gave welcome addresses. After the handing over of the GA Travel Grants, the bestowment of the Dr. Willmar-Schwabe Research Scholarship, the Bionorica Phytoneering Award, the Planta Medica Best Paper Award, the dedication of the Planta Medica Special Issue to Emeritus Prof. Max Wichtl, the bestowment of the GA Honorary Membership to Prof. Mohamed Khayyal, Cairo University, and of the Egon-Stahl Award in Silver took place. The award ceremony closed with the bestowment of the Egon-Stahl Award in Gold to Prof. Robert Verpoorte, Leiden University, The Netherlands, for his lifetime achievements in the field of pharmacognosy and phytochemistry.

Plenary lectures on topical issues in natural product research were delivered by Heribert Warzecha, TU Dortmund, Germany, Elisabeth Joubert, ARC Stellenbosch, South Africa, Jürgen Drewe, Zeller AG and University of Basel, Switzerland, Frank Petersen, Novartis, Switzerland, and by Alva-

ro Viljoen, Tshwane University of Technology, Pretoria, South Africa, who replaced Jan Frank. Close to 100 short lectures were delivered in three parallel sessions that were held during the three days of the conference, and over 550 posters were presented and discussed in two poster sessions held on Monday and Tuesday afternoon. In the Foyer of the Congress Center the exhibition area enabled interaction of participants with instrument manufacturers and providers of services and products. The Members Meeting was held on Tuesday evening, with over 120 GA members attending.

The conference ended with the congress dinner held in the historical guild hall of the Safranzunft, and by excursions on Thursday to Lake of Lucerne and Pilatus mountain, and to Gruyère and the Cailler chocolate factory.

For the conference there was a "premiere" for GA with regard to information tools, as we had implemented an interactive browsable agenda which had been made available to congress participants already prior to the congress.

On behalf of the Organizing Committee of GA2017, Prof. Matthias Hamburger

GA strongly supports the career of postdocs and PhD students:

19 Travel Grants for young GA members from all over the world to join the 2017 annual meetings of the Society in Basel, Switzerland

Postdoctoral Awardees

Mehdi Pasalar Joseph Sarkodie Aizhan Zhussupova



PhD Student Awardees

Akinsanmi O. Augustina Aaron Antwi Stefan Esch Aikaterini Georgousaki Aisyah Salihah Kamarozaman Evangelia Karkoula Njogu Mark Kimani Rozalia Micalea Nur Sumirah Mohd Dom Andrés Rivera Mondragón Faezeh Monji Peter Segun Muhammad Ajmal Shah Iwona Stanislawska Nassifatou Koko Tittikpina Noniye Ujam



Dr. Willmar Schwabe Research Scholarship 2017 for Young Scientists to Dima Hammoud



The aim of the Dr. Willmar Schwabe Research Scholarship for Young Scientists is to support aspiring researchers, especially from developing countries, to join a leading research institution for at least 6 months. Projects focusing on pharmacological and clinical research on phytopharmaceuticals and their active substances are particularly favoured. The 2017 Research Scholarship

was awarded to Dima Hammoud, from the IRGIB-Africa University in Cotonou, Benin, for her project entitled "Antibacterial and anti-inflammatory mechanisms exerted by the fungus growing termite strain *Macrotermes bellicosus* used in traditional medicine in Benin". With the support from the fellowship she will join the group of Prof. Jürgen Arnhold, Faculty of Medicine,

University of Leipzig, Germany. Analytical support of the project will be given by Prof. Karin Fester, Departemnt of Pharmacy. The award was given by Dr. Günter Meng, Head of Research at Dr. Willmar Schwabe Company. The awardee will present the results of her project at the 66th Annual Congress of GA.

Bionorica Phytoneering Award 2017 to Prof. Anna Kiss, Dr. Sebastian Granica and Dr. Jakub Piwowarski

The Bionorica Phytoneering Award acknowledges outstanding research in the field of development and application of phytopharmaceutical products. The 2017 Phytoneering Award was given to Prof. Anna Kiss, Dr Sebastian Granica and Dr. Jakub Piwowarski, Department of Pharmacognosy and Molecular Basis of Phytotherapy, Medical University of Warsaw, Poland for their project entitled "Re-emergence of medicinal plants rich in tannins". The team had been investigation in the past years the phytochemistry of selected tannin-rich plants, performed pharmacological investigations with extracts and purified compounds, with a focus on various targets involved in inflammation. Their work also included biopharmaceutical aspects, as they studied the activities not only of the tannins, but also of tannin metabolites that are being produced by gut microbiota.

The award was given by Dr. Dirk Bredenbröker, Head of Research at Bionorica Company.



Young Researchers' Workshop 2017 dedicated to Professor Sandra Apers

The Young Researchers' Workshop (YRW) 2017 in Basel, Switzerland, was dedicated to our dear colleague and friend Professor Sandra Apers (Department of Pharmaceutical Sciences, University of Antwerp, Belgium), who passed away in February 2017. We will sadly miss her wonderful personality and friendship, her scientific excellence and her dedication and enthusiasm for our society. This year's workshop started with a moment of silence in memory of Sandra.

The concept of YRWs was established 12 (since 2005) year ago in order to bring to-

gether young scientists, in particular PhD students, for the presentation and discussion of their work in a free and relaxed atmosphere, thus promoting presentation skills, scientific exchange and networking. In Basel, this concept was successfully continued. This year's workshop was organized and chaired by Professor Anastasia Karioti from the University of Thessaloniki, Greece, and by Professor Robert Fürst from the University of Frankfurt, Germany. As usual, the YRW started with an impulse lecture given by an established, but still young scientist. This year, Pro-

fessor Krystyna Skalicka-Wozniak from the Medical University of Lublin, Poland, talked

about "How the power of liquids can be used to discover novel natural products". Her exciting lecture sharpened the view of the audience on the importance and possibilities of counter-current chromatography. Krystyna's talk included many helpful suggestions to the young researchers regarding motivation, scientific creativity and also career development.



From the 22 submitted abstract, ten (from nine different countries!) were chosen for oral presentation during the workshop. About 60 participants gathered in one of the lecture halls of the Basel Congress Center to listen to the presentations. All talks were of great scientific quality and the discussions were very lively. The YRW ended with a wrap-up session and with a short discussion on future perspectives. All participants highly appreciated the current format of the YRW and recommended to intensify the included "meet the expert" lunch. Most importantly, also the awards were bestowed in this closing session. Due to the generous support of Professor Jürg Gertsch (University of Bern, Switzerland) and the company Bionorica SE (Neumarkt, Germany), we were able to award 2 prizes for the best presentations. The "Innovation Award" by Jürg Gertsch (1000 Euro) was bestowed to Iwona Stanislawska and the "Bionorica YRW Award" of 600 Euro was given to Rita de Cassia Lemos Lima. Moreover, both awardees had the exciting opportunity to present their results also during the main conference program in front of a much bigger audience. The proud winners were honored in the opening ceremony of the congress.

Thanks to the high scientific standard of each presented work, the very enthusiastic speakers and the active audience, the YRW 2017 was of great success. The concept of a pre-symposium that is solely dedicated to our scientific youngsters has again proven to be of great importance for the congress and, thus, our society. The next YRW will for the first time take place in China, in Shanghai, on Sunday, August 26, 2018. We are very much looking forward to hearing about the latest research of highly talented young researchers!

Prof. Dr. Robert Fürst, University of Frankfurt, Germany



Prof. Dr. Krystyna Skalicka-Wozniak, Medical University of Lublin, Poland, during her impulse lecture



Workshop on Regulatory Affairs of Herbal Medicinal Products, GA-meeting, 2017 in Basel

The workshop "Regulatory Affairs" is an integral part of the annual meetings of GA. It is providing a platform to focus on selected topics in the field of regulatory affairs related to herbal medicines. Moreover, the workshop offers options to establish networks and bring together regulators, industry representatives and scientists. At the GA-meeting in Basel 2017 the workshop was organized and chaired for the first time by Prof. Dr. Knöss (BfArM, Federal Institute for Drugs and Medical Devices, Bonn, Germany).

The objective of the workshop was to stimulate an extensive dialogue between science and regulation. Participants got especially insight into the regulatory framework for herbal medicines in Switzerland, where complementary therapies have a particular status and a high level of acceptance. The Swiss population clearly voted in favor of herbal and complementary medicines. A specific regulatory framework has been established including provisions for reimbursement.

The workshop was entitled "Regulation of complementary and herbal medicines in Switzerland – a particular environment and platform for an extended dialogue". Three

different perspectives were excellently presented by competent experts. Starting point was the view of the national regulatorv agency Swissmedic (Switzerland). Dr. Martin Ziak, head of unit for complementary medicines, explained the recent and intended changes in the legal framework for herbal medicines. The perspective of industry was presented by Dr. Catherine Zahner and Dr. Christiane Halbsguth (Zeller Company, Switzerland). They highlighted some experiences with regulatory requirements on quality and safety, in particular addressing the challenges faced by a pharmaceutical company, which is operating in different countries. A major problem was that applications often have to be adapted to national requirements in different countries. Finally, Dr. Evelyn Wolfram (ZHAW, Wädenswil, Zürich University, Switzerland) gave her contribution based on her scientific research and also her involvement into developments for the European Pharmacopeia. She demonstrated the benefit of interaction between science and regulation, but she also reported, that in reality investing time to support regulatory activities is often not counted in scientific evaluation



presented and actively joined the discussion. Beside particular questions to the speakers there was a substantial interest in regional differences and ideas how to develop suitable platforms for further communication and how to partially converge different regulatory frameworks.

During the next years the workshop "Regulatory Affairs" will continue to offer an interface between science and regulation by raising questions such as "What can regulators learn from science? What can scientists contribute to regulation? How can research support regulation?" Some particular regulatory topics will be even of interest for all participants of GA-meetings and may be integrated into the sessions during the meeting.

Looking forward to seeing you at the GA-meeting in Shanghai.

Prof. Dr. W. Knöss, Federal Institute for Drugs and Medical Devices, Bonn, Germany

GA-networking group on Medicinal Plants and Natural Products in Animal Healthcare and Veterinary Phytotherapy: Science and Practice

Animal healthcare and veterinary phytotherapy was again a main topic of the 65th GA Congress. For the first time we had a one-day Pre-Congress Symposium organised by the GA-networking group on Medicinal Plants and Natural Products in Animal Healthcare and Veterinary Medicine in collaboration with the veterinary section of the Swiss Medicinal Society for Phytotherapy (SMGPvet). Beside the geographical proximity, we assumed, that the 10-year anniversary of the SMGPvet is a good reason for this joint meeting. The SMGP was founded 1988 and has recently more than 750 members - mainly pharmacists, medical doctors and veterinarians.

In total about 90 interested participants from 15 countries and from all continents came together. Practitioners, scientists and industry in the field of veterinary phytopharmacology, ethnoveterinary medicine, plant derived feed additives and clinical uses of natural products as well as herbal drugs and phytogenic health care

products in animals listened to 11 enthusiastic talks and had broad discussions and professional, scientific and personal exchange during the breaks. Beside the symposium our issue "Animal Healtcare and Veterinary Medicine" was also with about 20 posters part of the Monday poster session and topic of a short lecture session with 6 talks on Tuesday morning during the main congress. Meanwhile all abstracts of the congress have been published as a special edition of "Planta Medica Letters". An international industrial exhibition with 6 companies presenting herbal feed additives, veterinary drugs and phytogenic health care products for animals as well as specific diagnostic tools for veterinary phytotherapy was held for the first time during the Sunday symposium.

About 40 people visited the Zoo Basel on Monday evening, our GA-animalhealth-networking-meeting. We had a really great guided tour with the veterinarian of the zoo, Stefan Hoby, which has a lot of experience



in phytotherapy for zoo animals. During the tour (and also during the following dinner in the Zoo Restaurant) inspiring discussions rose in this interdisciplinary group.

Our issue will be again topic of the next GA-Congress in Shanghai, China, 26th–29th August 2018 ...

...and, thanks to Professor Hermann Stuppner, the local organizer of the GA-Congress 2019, we will have our next Pre-Congress-Symposium on Medicinal Plants and Natural Products in Animal Healthcare and Veterinary Medicine on Sunday 01. September 2019 in Innsbruck, Austria.

See you all (latest) there!

Dr. Michael Walkenhorst and the team of the GA-Networking group on Medicinal Plants and Natural Products in Animal Healthcare and Veterinary Medicine





Feverfew and Parthenolide: Phytochemical, Pharmacological and Clinical Evidence November 16th 2017, University of Vienna, Austria

The committee of the Herbal Medicinal Products Platform Austria (HMPPA) has chosen *Tanacetum parthenium* (Feverfew) as the medicinal plant for the year 2017 in Austria and organized together with the Society for Medicinal Plant and Natural Product Research (GA) the scientific workshop "Feverfew and Parthenolide – Phytochemical, Pharmacological and Clinical Evidence" on November 16th 2017, 10:00 – 16:00 h at the University of Vienna, Pharma Centre, Department of Pharmacognosy, Austria.

Eight international experts working on Tanacetum parthenium from Austria, Germany, Hungary, Italy and Poland discussed and presented their recent work and provided views of this exciting research area from different angles. Prof. Irmgard Merfort (Department of Pharmaceutical Biology and Biotechnology, University of Freiburg, Germany) opened the workshop with an overview on feverfew in the past, presence and future. Dr. Krisztina Végh (Semmelweis University, Department of Pharmacognosy, Budapest, Hungary) presented the parallel artificial membrane permeation assay (PAMPA) for the prediction of the bloodbrain barrier penetration of a T. parthenium supercritical fluid extract. Prof. Christian Wöber (Department of Neurology, Medical University of Vienna, Austria), focused his lecture on migraine and its treatment with feverfew.

Silvia Benemei MD (Department of Health Sciences, University of Florence, Italy) outlined the emerging role of TRPA1 in migraine treatment and Dr. Lorenzo Di Cesare Mannelli (Department of Neuroscience,



Psychology, Drug Research and Child Health – Neurofarba – Section of Pharmacology and Toxicology, University of Florence, Italy) described the perspectives for treating persistent systemic pain with feverfew. Mag. Heinrich Evanzin (ZECO, ParisLodron University Salzburg, Austria) described in his short lecture the folk medicinal use of T. parthenium for tinnitus treatment, based on the overwhelming concentration of melatonin. Prof. Dietmar Fischer (Department of Neurology, Hein-

rich-Heine-University Düsseldorf, Germany) emphasised in his interesting talk the benefits of parthenolide, as a novel phytogenic drug for nerve repair and Prof. Malgorzata Czyz (Department of Molecular Biology of Cancer, Medical University of Lodz, Poland) concluded the workshop with the anticancer activities of parthenolide focusing mainly on melanoma.

Prof. Dr. AR Bilia, Florence, Italy



Report meeting Phytopharm 2017, Graz, Austria

The 21th International Congress PHYTO-PHARM 2017 and the celebrations of the 10th Anniversary of the TCM Research Center Graz were successfully held in Graz, Austria, from 2 till 5 July, 2017.

Ever since the first Phytopharm conference in 1990, it has been one of the important events of the year, aiming to present interesting, state-of-the-art research relevant to professionals working in various fields of medicinal plants and natural product research, and to foster networking and collaboration. This year, over 150 participants from 36 countries, namely Argentina, Austria, Brazil, China, Croatia, Czech Republic, Finland, Ghana, Germany, Hungary, Indonesia, Israel, Iran, Italy, Jamaica, Kosovo, Mexico, Moldova, Norway, Philippines, Poland, Republic of Macedonia, Romania, Russia, Saudi Arabia, Slovenia, South Africa, South Korea, Spain, Switzerland, Taiwan, Thailand, The Netherlands, Turkey, United Kingdom, and Vietnam have accepted our invitation and have come to Graz.

The scientific program of PHYTOPHARM covered natural product research from phytochemical studies to phytotherapeutic applications. The aim of the congress was to serve as a forum for discussions on the

latest results and trends, and to exchange ideas relating to phytochemical analysis, ethnopharmacology, pharmacology of natural products and biotechnology.

In total, 80 posters, 15 plenary, and 32 short lectures were presented during the three days of the congress. Six parallel sessions allowed an appreciable number of participants to present results in oral talks. 132 abstracts were published in the special issue of the journal and "Reviews on Clinical Pharmacology and Drug Therapy". Most active were scientists from Russia, Austria, and Germany. The poster sessions at central time frames within the congress also provided an opportunity for scientific discussions. After close evaluation of the posters by the scientific board, the three best were granted with an award. The best posters were presented by Nóra Gampe from Semmelweis University, Budapest, Hungary (poster title: "Structural analysis of homopipecolic acid derivatives of spiny restharrow root), Fernando Pereira Beserra from São Paulo State University, Brazil (poster title: "Lupeol, a triterpene isolated of Bowdichia virgilioides Kunth. (stem bark) accelerates cutaneous wound healing in diabetic rats") and Yanti from Atma Jaya Catholic University, Jakarta, Indonesia (poster title: "In vitro anti-obesity and anti-diabetic activities of active fractions from *Zanthoxylum acanthopodium* fruits").

Many companies and people have contributed in the preparation and the organization of this congress. On behalf of the Organizing Committee we want to thank the State of Styria, the City of Graz, Karl-Franzens-University of Graz, our general sponsor BIONORICA SE, and the other sponsors (Bayer-Steigerwald, Mospharma, Shimadzu, Waters, Thermo Fisher Scientific, Apomedica, Phytolab, Su Biomedicine), as well as the members of the scientific and local organizing committees for their great engagement.

Detailed information about congress as well as lectures are available on web-site: http://www.doclinika.ru/Phyto17/index.html

We are looking forward to seeing you at the 22th International Congress PHYTO-PHARM 2018 in Wädenswil, Switzerland, on June 25–27, 2018!

Please visit us at: www.phytopharm2018.ch

Prof. Rudolf Bauer and Prof. Alexander Shikov

MediHealth: Novel natural products for healthy ageing from Mediterranean diet and food plants of other global sources



Since 2016, a consortium of researchers and experts from 5 universities and 4 enterprises from the EU and Switzerland, as well as 4 universities from non-EU countries, are working on the MediHealth pro-

ject. It is part of the "Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE)" program in the Horizon 2020 funding scheme. RISE promotes international and inter-sector collaboration



through research and innovation staff exchanges. Support is provided to develop partnerships in the form of joint research and innovation activities between the participants, based on two-way staff exchanges (from industry to academia and vice-versa). In the EU, only secondments from industry to academia and from academia to industry are allowed; but both industry and academia can host researchers from non-EU countries or send researchers to non-EU universities.

The MediHealth project is coordinated by Prof. Hermann Stuppner (project leader) and Ass.-Prof. Dr. Birgit Waltenberger (scientific project manager) from the Institute of Pharmacy/Pharmacognosy, University of Innsbruck, Austria. Further academic project partners are the Research Institute for Biomedical Aging Research, University of Innsbruck, Austria (Prof. Pidder Jansen-Duerr); the Department of Pharmaceutical Sciences - NatuRA (Natural Products & Food Research and Analysis), University of Antwerp, Belgium (Prof. Luc Pieters); the group Phytochemistry & Bioactive Natural Products and Pharmacognosy, University of Geneva, Switzerland (Prof. Jean-Luc Wolfender); the Laboratory of Translational Nutrition Biology, ETH Zürich, Switzerland

(Prof. Christian Wolfrum); the Department of Pharmacognosy & Natural Products Chemistry (Prof. Leandros Skaltsounis) and the Department of Cell Biology & Biophysics (Prof. Ioannis Trougakos), both from the University of Athens, Greece. Industrial partners include several pharmaceutical and biotechnological companies in Europe, i.e. Bionorica Research GmbH (Austria), Galenica SA (Greece), Rousselet Robatel Kromaton (France), and Vivacell Biotechnology GmbH (Germany). Universities from outside of Europe that participate in the project include the University of Medicine and Pharmacy at Ho Chi Minh City (Prof. Hung Tran) (Vietnam); Tshwane University of Technology (Prof. Alvaro Viljoen) (South Africa); Faculté de Sciences de Sfax (Prof. Noureddine Allouche) (Tunisia); and the Universidad Catolica del Norte (Prof. Victor Kesternich) (Chile).

The main goal of the MediHealth project is to introduce a novel approach for the discovery of active agents of food plants from the Mediterranean diet and other global sources to promote healthy ageing. To achieve this goal, a series of 30 plant species has carefully been selected from the Mediterranean diet as well as food plants from Africa, Asia, and South America. Based on literature data, phytochemical profiling using advanced LC-MS methods,

and preliminary pharmacological experiments, out of the 30 plant species, the 10 most promising ones were selected and subjected to a comprehensive research platform including in silico, in vitro, in vivo, and metabolism assessment. In particular, one of the key features of the project is the comparison of in vivo evaluation in mice and fly models, and in vitro metabolism studies followed by in vitro evaluation in advanced cell-based assays. Mice will be fed with extracts of the selected plant species, and multiple markers for the development of age associated metabolic disorders such as diabetes type 2, dyslipidemia, and cardiovascular diseases will be analysed. In addition, it will be investigated if the plant extracts can protect the proteome of Drosophila flies from oxidative modifications by measuring the suppression of proteome oxidative damage, and the activation of proteome catalytic activity. Thirdly, the effect of preliminary in vitro metabolism will be examined. Indeed, in the search for new biologically active substances, in vitro bioassays, e.g. in high-throughput testing environments, still play an important role. Nevertheless, many molecules active in vitro fail when tested in vivo due to bioavailability aspects and biotransformation processes. Intestinal absorption, distribution in body tissues, and most importantly the formation of metabolites by microflora in the colon are critical aspects. The seeming "inactivity" of many natural products isolated from plants is in many cases due to the fact that those are often pro-drugs, e.g. glycosides, which must undergo *in vivo* metabolic conversion (activation). Biotransformation assays are applied to mimic the metabolism of compounds in the human body, including simulation of gastric and intestinal physiological conditions, microbial fermentation in the colon, and enzymatic conversions in the liver (S9 fraction).

Finally, based on the results of these three parallel research lines (mice, fly, and in vitro assays), three hit plants will be selected for detailed phytochemical and pharmacological investigations. Advanced analytical techniques will embrace the pharmacological evaluation process for the efficient isolation and identification of bioactive plant constituents. Pharmacological profiling of bioactive natural products as well as identification and synthesis of their metabolites will be carried out. Finally, process optimization studies will be performed to proceed to the development of innovative nutraceuticals/dietary supplements or herbal medicinal products.

Further information on MediHealth can be found on the project website: http://medihealth.eu/partners

Next Conferences

The 66th Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA) jointly with 11th Shanghai International Conference on Traditional Chinese Medicine and Natural Medicines Shanghai, China, August 26-29th, 2018

The 66th Annual Meeting will be held in Shanghai, China, from 26th to 29th August, 2018. This year the meeting will be jointly with 11th Shanghai International Conference on Traditional Chinese Medicine and Natural Medicines! As chair of the organizing committee it is a great pleasure to give you some information on the congress and the program. The conference venue is at the Parkyard Hotel located in the Pudong New Area (http://www.parkyards.com) which can be easily reached via public transportation from Pudong Airport (international) and Hongqiao Airport (domestic). Currently, the Shanghai Metro system is the world's largest rapid transit system by route length and second largest by number

of stations, serving almost all the municipal districts. In particular Metro line #2 is just only 100 meters far from the hotel (60 kilometers with 30 stations) includes mostly of Shanghai's famous attractions and commercial streets: Zhongshan Park, Jing'an Temple, West Nanjing Rd. – the main commercial road, People's Square, East Nanjing Rd., Lujiazui Finance and Trade Zone, Century Park and Zhangjiang High Technology Park.

Shanghai is not only the largest city of China (with population of approximately twenty-five million), but also the business and financial center, please do not miss also to visit Oriental Pearl Tower, Bund of Shanghai, Cruising on the Huangpu River, Yu



Yuan Garden. Furthermore, I suggest to take the high-speed railway to visit nearby cities, like Suchow (20 min) and Hangzhou (45 min), the so-called "Paradise on Earth". Beijing can be reached within 4.5 hours from Shanghai. The congress will start on Sunday 26th August, 2018 and three pre-congress events will take place. The Young Researchers Workshop will offer a platform for young scientists to present their latest findings, and the Regulatory Affairs Workshop will serve as a forum for industry to update on the latest trends in regulation of herbal medicines and related areas. Moreover, the Shanghai Center of Biomedicine Development (SCBD), in cooperation with the GA society, will organize a pre-congress Symposium on traditional Chinese medicine. The 500th anniversary of the birth of Li Shizhen, the great herbalist in Ming Dinasty to write his masterwork of Compendium of Materia Medica will also be celebrated. In the late afternoon of Sunday the traditional Get-Together Party will take place. The main congress will start on Monday morning with the official opening and award ceremony. Main topics of the scientific program include natural products chemistry and drug discovery, biological and pharmacological activities of natural products, herbal authentication and quality standards, ethnopharmacology and traditional medicinal practices, formulation and delivery systems of natural products, biosynthesis and biotechnology of natural products, medicinal plants resources and sustainability, natural products in health care and veterinary medicine. Beyond these main topics, scientific contributions in any other area related to natural product research are welcome!

Distinguished speakers from academia and industry will deliver plenary lectures on some of the main topics of the congress. Also, we look forward to the plenary lectures that will be delivered by the awardees of the Egon-Stahl Awards in Bronze, and the Dr. Willmar Schawbe Award.

Short lectures and Poster sessions will be held in three parallel sessions in order to accommodate for the large number of contributions, and to leave enough time for discussions. Information concerning the congress dinner and post-congress excursions will be reported in the congress website (www.ga2018.cn) will be online in December, and we will update you there with more details.

On behalf of the Organizing Committee that comprises members from the Shanghai Institute of Materia Medica (De-an Guo, Yang Ye, Wanying Wu, Shishan Yu) from the Second Military Medical University (Weidong Zhang), Long March Hospital (Wansheng Chen) and China Pharmaceutical University (Ping Li). I cordially invite you to the 66th Annual Meeting. We all look forward to welcoming you in Shangai!

Prof. De-an Guo,

Chair of the 66th Annual Congress of GA Shanghai Institute of Materia Medica, CAS, Shanghai 201203, China; Phone: +86-21-50271516 (direct); +86-21-50272789 (secretary); Fax: +86-21-50272789; e-mail: qa2018@simm.ac.cn

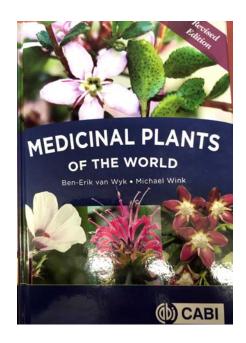
Awards and Honours

Prof. Dr. Gerhard Franz receives the FOURTH CHEUNG ON TAK International Award 2018 for outstanding Contribution to Chinese Medicine

This award is conferred biennially on scientists and scholars with groundbreaking and internationally recognized achievements in advancing the internationalization of Chinese medicine as well as fostering international exchanges and collaborations in Chinese medicine.

This award will be donated in a presentation ceremony-cum-award winners lecture in March 2018 at Hong Kong Baptist University, School of Chinese Medicine.

It is further interesting to mention that Professor Franz has received the "LESMÜLLER-MEDAILLE" in Sept. 2017 donated by the German Bundesapothekerkammer (German Pharmacists Society, Berlin) for his activities over more than 30 years in the field of quality regulations for herbal drugs in the framework of the German Pharmacopoeia (DAB), the European Pharmacopoeia (Ph Eur) and the Deutsche Arzneimittelcodex (DAC).



Medicinal Plants of the World

The second edition of this famous book, which should not be missing in the library of any pharmacognostic institution or medicinal plant enthusiasts reflects significant details of botany, origin, parts uses, therapeutic categories, properties, active ingredients, preparations and dosages and pharmacological effects for nearly 900 medicinal plants. All monographs are up-todate, covering the essential information to be used in rationalized phytotherapy. All monographs contain high-quality images of the plants and plant parts in use, which makes this book to a photographic guide to the most commonly used and best known medicinal plants of the world. Additionally a general introduction to medicinal plants indicates interesting aspects on the different cultures of our world in respect to the use of plants. The chapter on regulations of herbal remedies and phytomedi-



cines covers the main aspects of the regulatory side for phytomedicines.

Summarizing, this book can be recommended for getting a quick and effective entry in medicinal plants and their specific

Ben-Eric van Wyk (South Africa) and Michael Wink (Germany), CABI Publisher, Boston, MA, USA, ISBN 978-1-786393-25-8, 519 pages, high quality color print.

Prof. Dr. A. Hensel, Münster, Germany



Die Mistel in der Tumortherapie 4 – aktueller Stand der Forschung und klinische Anwendung

More than 50% of all cancer patients in German-speaking countries use mistletoe extracts prescribed by their doctors as part of their treatment. It is therefore important to discover even more about the possibilities offered by this medicinal plant and its

ingredients and utilise them for the benefit of patients and their cancer therapy. This is the task of the organisers of the Mistletoe Symposium, the international and interdisciplinary conferences on "Mistletoe in Tumour Therapy", held every four years, and 2015 for the sixth time.

With this symposium the organizers have succeeded once again in presenting more than 40 original scientific contributions. The abstracts of all contributions are published in supplementary volume I of Phytomedicine 22 (2015), the well-known "International Journal of Phytotherapy and Phytopharmacology" from Elsevier and are freely available on the internet at http://www.sciencedirect.com/science/journal/09447113/22/supp/S1.

Most of them have been collected and published as extended versions in this book. The range of the presented topics covers manufacture, quality control, and regulatory assessment of the mistletoe preparations as well as pharmacological effects of various active substances, preclinical in vitro and in vivo testings, immunological and cytotoxic investigations up to clinical research of different modes of application and tumor entities both in human and veterinary medicine. This time the symposium was focusing on the treatment of gastrointestinal tumors and examined the subject from the viewpoints of both complementary and conventional oncology. Furthermore, the results of a comparative, randomised clinical trial on pancreatic carcinoma have been presented. Since this study has been the topic of widespread and controversial discussion in the literature, the issues it raises were also been discussed during the symposium and published in this book. The book's main language is German. All abstracts and some contributions are in English.

The goal is to build bridges between the various therapeutic approaches, between pharmacy and medicine, between basic research and clinical practice and – in particular – between conventional and complementary oncology.

May the current book, even more so than those of recent symposia, contribute that expert associations and representatives not only of complementary but also of conventional oncology concern themselves more scientifically with questions about the safe and effective application of mistletoe in tumor therapy in the future.

Scheer R., Alban S., Becker H., Beer A.-M., Blaschek W., Kreis. W., Matthes H., Schilcher H., Spahn G., Stange R. (Eds.) 469 pages, KVC-Verlag Essen 2016, ISBN 978-3-945150-68-9 / 24,90 EUR

Dr. R. Scheer, Germany



Recent thesis (2017) on Medicinal Plant Research



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

Ph.D. thesis (2017) Antiadhesive activity of traditionally used plants against urinary tract infections: An alternative strategy to combat uropathogenic *Escherichia coli*. By: Shabnam Sarshar Beydokhti. Promotor: Prof. Dr. A. Hensel, Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Germany.

Ph.D. thesis (2017) Phytochemical and pharmacological characterization of selected plant species of the genus *Filipendula* Mill. (Rosaceae). By: Jelena KATANI. Promotor: Prof. Dr. V. Mihailovi, Department of Chemistry, Faculty of Science, University of Kragujevac, Serbia.

Ph.D. thesis (2017) Bio-assay guided isolation and structure elucidation of cytotoxic compounds from *Pluchea odorata* (L.) Cass. and evaluation of their in vitro effects. By: Michael Blaschke. Promotors: Prof. Mag.Dr. B. Kopp, Department of Pharmacognosy, University of Vienna, and Prof.Dr. Georg Krupitza, Medical University of Vienna, Austria).

PhD. thesis (2017) Bioactive natural products: targeted identification of antivirals and hERG blockers. By: Christina E. Mair; Promotor: Prof. J. M. Rollinger, University of Vienna, Austria.

Ph.D. Thesis (2017) Identification and investigation of plasmodial surface proteinglycosaminoglycan interactions. By Johannes ALMER; Promotors: Univ.-Prof. Dr. Andreas Kungl and Ao. Univ.-Prof. Dr. Franz Bucar, University of Graz, Institute of Pharmaceutical Sciences, Austria.

PhD thesis (2017) Bioactive compounds in flowers and fruits of *Sambucus nigra* L.. By: Giang Thanh Thi Ho. Promoter: Ass. Prof. H. Barsett, Department of Pharmaceutical Chemistry, School of Pharmacy, University of Oslo.

Ph.D. thesis (2017) Valorization of Agro-Bio-waste in pharmaceutics: Examples of Moso bamboo leaves and rose oil distillation waste water. By: Jonas Wedler. Promotor: Prof. Dr. Veronika Butterweck, Institute for Pharma Technology, School of Life Sciences, University of Applied Sciences Northwestern Switzerland, Switzerland.

Ph.D. thesis (2017) Assessing the potential of small molecules of natural origin in emerging biological targets. By: Maria Teresa Faleschini. Promotor: Prof. Dr. M. Hamburger, Division of Pharmaceutical Biology, University of Basel, Switzerland.

Ph.D. thesis (2017) Evaluation of pollen secondary metabolites in exacerbation of non-allergic athma, and development of computer-assisted LC-MS batch processing, clustering, and visualization. By: Alen Bozicevic. Promotor: Prof. Dr. M. Hamburger, Division of Pharmaceutical Biology, University of Basel, Switzerland.

M.Sc. thesis (Food Chemistry) (2017) Isolation of polysaccharides from the lichen Xanthoria parietina and investigations of immune-activating effects. By: Alena Peters. Promotor: Prof. Dr. A. Hensel, Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Germany

M.Sc. thesis (2017) Establishing of reference standards from plant materia. By: Jinliang Wang. Promotor: Prof. Dr. A. Hensel, Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Germany

M.Sc. thesis (Food Chemistry) (2017) Beeromics of the World – Classification of beers from all over the world by their analytical fingerprings. By: Peter Tebbe. Promotor: Prof. Dr. T. J. Schmidt, Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Germany

Diploma thesis (Jan. 2017) Triterpenes from *Gloeophyllum odoratum* as potential steroidsulfatase (STS) inhibitors. By: Natalie Prenner; Supervisors: Prof. J. M. Rollinger, Dr. U. Grienke, University of Vienna, Austria.

Diploma thesis (Jan. 2017) Comparison of preparative techniques for the separation of triterpenoid saponins. By: Agata Smolag; Supervisor: Prof. J. M. Rollinger, University of Vienna, Austria.

Diploma thesis (Feb. 2017) In silico assisted search for new GPBAR1 modulators. By: Benjamin Kirchweger; Supervisors: Prof. J. M. Rollinger, Dr. U. Grienke, Dr. Jadel M. Kratz, University of Vienna, Austria.

Diploma thesis (June 2017) Isolation and Identification of Lignanamides in Hemp Seed. By: Gudrun Englmaier; Supervisors: Prof. J. M. Rollinger, University of Vienna, Austria

Diploma thesis (Jul. 2017) Lanostane triterpenes from Tyrolean mushrooms: ASE based extraction protocol, metabolite profiling and isolation. By: Julia Zwirchmayr; Supervisors: Prof. J. M. Rollinger, Dr. U. Grienke, University of Vienna, Austria.

Diploma thesis (Jul. 2017) Lanostane triterpenes from Tyrolean mushrooms: ASE based extraction protocol, metabolite profiling and isolation. By: Julia Zwirchmayr; Supervisors: Prof. J. M. Rollinger, Dr. U. Grienke, University of Vienna, Austria.

Diploma thesis (Jul. 2017) Phytochemical analysis and acetylcholinesterase activity of lycopodium alkaloids from the club moss *Huperzia selago*. By: Sara Miletic; Supervisors: Prof. E. S. Olafsdottir, Prof. J. M. Rollinger

Diploma thesis (Nov. 2017) Analyse des Inhaltsstoffprofils von *Syzygium aromaticum*, *Kaempferia galanga* und *Pimenta dioica* mit Bioaktivitätstests zur Überprüfung der Wirksamkeit auf den TGR5 – Rezeptor. By: Christoph Hofstadler. Supervisors: Prof. J. M. Rollinger, Dr. M. Zehl, University of Vienna, Austria.

Diploma Thesis (2017) Quantification of flavonoids in Leonurus japonicus by HPLC and HPTLC. By: Lisa DERLER; Supervisor: Priv.-Doz. Dr. Karin Ardjomand-Wölkart, University of Graz, Institute of Pharmaceutical Sciences, Austria.

Diploma Thesis (2017) "3 Phytotherapeutics against sleeping disorders" Lemon balm Passionflower Valerian. By: Claudia HAM-MERLINDL; Supervisor: Priv.-Doz. Dr. Karin Ardjomand-Wölkart, University of Graz, Institute of Pharmaceutical Sciences, Austria.

Diploma Thesis (2017) Investigations on the assay of anthranoid derivatives in rhubarb roots by HPLC. By: Marlene KRANE-WITTER; Supervisor: Univ.-Prof. Dr. Rudolf Bauer, University of Graz, Institute of Pharmaceutical Sciences, Austria.

Diploma Thesis (2017) Influence of postharvest processing on the quantity of the ingredients of Salviae miltiorrhizae Radix and Scrophulariae Radix. By: Alexandra RAUS; Supervisor: Univ.-Prof. Dr. Rudolf Bauer, University of Graz, Institute of Pharmaceutical Sciences, Austria.

Diploma Thesis (2017) Optimization of the Ultrasonic Extraction Method for Rhein from Cassia fistula L. By: Anna MOHR; Supervisor: Ao.Univ.-Prof. Dr. Adelheid Brantner, University of Graz, Institute of Pharmaceutical Sciences, Austria.

Diploma Thesis (2017) Phytochemical investigations and α -glucosidase inhibitory activity of Caesalpinia pulcherrima (L.). By: Stephanie TSCHARRE; Supervisor: Ao. Univ.-Prof. Dr. Adelheid Brantner, University of Graz, Institute of Pharmaceutical Sciences, Austria.

Diploma Thesis (2017) Phytochemical and microbiological investigations of Iris adriatica. By: Fabian ALPERTH; Supervisor: Ao. Univ.-Prof. Dr. Franz Bucar, University of Graz, Institute of Pharmaceutical Sciences, Austria.

Diploma Thesis (2017) Investigation of Staphylococcus aureus concentrations in a defined aerosol by impingement and sedimentation. By: Manuela BOROTSCHNIG; Supervisor: Ao. Univ.-Prof. Dr. Franz Bucar, University of Graz, Institute of Pharmaceutical Sciences, Austria.

Diploma Thesis (2017) Herbal natural products as modulators of multi-drug resistance in cancer cells. By: Kerstin HEIL; Supervisor: Ao. Univ.-Prof. Dr. Franz Bucar, University of Graz, Institute of Pharmaceutical Sciences, Austria.

Diploma Thesis (2017) Antimicrobial and resistance-modulating ingredients of the rhizomes of Iris adriatica. By: Stefanie MAYER; Supervisor: Ao. Univ.-Prof. Dr. Franz Bucar, University of Graz, Institute of Pharmaceutical Sciences, Austria.

Diploma Thesis (2017) Investigation of impingement and sedimentation with a defined fungal spore aerosol of Aspergillus niger. By: Anja RASER; Supervisor: Ao. Univ.-Prof. Dr. Franz Bucar, University of Graz, Institute of Pharmaceutical Sciences, Austria

Master thesis (2016) Morphologische und anatomische Untersuchungen an Blatt und Spross von Justicia secunda VAHL (Acanthaceae) sowie multivariate Datenanalyse. By: Elisabeth Klutz. Promotor: Ao.-Prof. Dr. Sabine Glasl-Tazreiter, Department of Pharmacognosy, University of Vienna, Austria.

Master thesis (2017) Anatomische und morphologische Untersuchungen an der Blüte von Justicia secunda. By: Sofija Laufer. Promotor: Ao.-Prof. Dr. Sabine Glasl-Tazreiter, Department of Pharmacognosy, University of Vienna, Austria.

Master thesis (2017) Isolation and characterization of constituents in an aqueous NaHCO3 extract of Norway spruce balm. By: Julia Langeder. Promotor: Ao.-Prof. Dr. Sabine Glasl-Tazreiter, Department of Pharmacognosy, University of Vienna, Austria.

Master Thesis (2017) Preparation and optimization of liposomes loaded with berberine and tariquidar and evaluation of the activity in resistant tumor cell lines due efflux pumps by Antonella Gasparro. Promotor: Prof. Marcella Maria Coronnello, Department of Health Sciences, co-promotor: Prof. Anna Rita Bilia, Department of Chemistry, University of Florence, Italy.

Master thesis (2017) Isolation and characterization of polyphenols from Greek mountain tea, *Sideritis scardica*. By: Hasina Azizullah. Promotor: Ass. Prof. H. Wangensteen, Department of Pharmaceutical Chemistry, School of Pharmacy, University of Oslo.

Master thesis (2017) Structural characterization of bioactive polysaccharide- and melanin fractions isolated from *Inonotus obliquus*. By: Cindy Suen. Promotor: Ass. Prof. K. T. Inngjerdingen, Department of Pharmaceutical Chemistry, School of Pharmacy, University of Oslo.

Editorial remark

All contributions for the GA-Newsletter are welcome. Deadline for submission for the next edition is fixed to May 25th 2018. 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

