



70th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA)

Thessaloniki, Greece

August 28 -31, 2022

FINAL PROGRAM

<https://qa2022.web.auth.gr/>

[Thessaloniki Concert Hall \('Megaro Mousikis'\), M2 building](#)



ARISTOTLE
UNIVERSITY
OF THESSALONIKI

WELCOME

Local Organizing Committee

Dear Participants of the **70th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA)**!

On behalf of the Organizing and the Scientific Committees of the GA2022 conference, it is my great pleasure to welcome you all to the GA 2022 meeting in Thessaloniki. It is the first time a GA meeting is hosted in Thessaloniki, one of the most vivid and historically significant cities of the Balkan peninsula.

The conference aims at expanding our current knowledge on all aspects of natural product research, bringing together renowned scientists from all over the globe. The scientific program includes invited key lectures and short lectures, poster sessions, as well as workshops. The congress will start with four pre-congress events: the 16th Young Researchers' Workshop (YRW), the African Research Pre-Congress Symposium (ARS) on Traditional Nature-based African Medicine, the Workshop of the Botanical Safety Consortium (BSC) on Development of a Toolkit to Evaluate Botanical Safety, and the Podium Discussion to Commemorate the Legacy of Prof. Otto Sticher.

After the restrictions imposed by the pandemic, we tried to organize a face-to-face meeting and offer the participants four days of excellent science, a perfect forum for networking and lively scientific discussions, interaction, as well as a fruitful and pleasant stay.

I would like to thank all members of the Organizing and the Scientific Committees, the GA BoD and EC members and the volunteers of the conference, who made this GA meeting possible. We are grateful to the Aristotle University of Thessaloniki for providing the auspices and the sponsors of the congress, who generously supported the conference and contributed significantly to the success of the meeting.

We hope that the program of the GA2022 congress in Thessaloniki will meet your expectations and that you will enjoy a meaningful intellectual meeting and a memorable stay.

On behalf of the Organizing Committee

Andreana N. Assimopoulou

Congress President

WELCOME

GA President

Dear Participants of the **70th International Congress and Annual Meeting of the GA**

I am sure that we all already suffer from a kind of thirst for in-person scientific exchange. After a three years break of a “regular” (respectively face-to-face) GA meeting, it is now my great pleasure to welcome you all to this event, where we can again meet in person to exchange science, to chat and discuss with old and new friends.

However, can we really expect again a “regular” GA meeting? Probably not fully!

The previous two and a half years of social distancing and close contact to disease, harm and fear was a major challenge for most of us, be it as student, academic teacher, researcher, as family member or colleague. Unfortunately, despite vaccination and therapeutics we did not yet fully overcome all the SARS CoV-2 related threats. Therefore, in order to protect yourself and your surroundings, we kindly ask you to keep the safety aspect in mind and wear a mask, whenever you are in a crowded area of the congress.

This year, the GA celebrates a special event, an anniversary – the 70th International Congress and Annual Meeting of our Society. Respectively, the program offers a surprisingly wide range of natural product topics in form of symposia, workshops, award and key lectures, short lecture sessions, coffee/wine & cheese poster sessions, and discussion forums, and last but not least all the social events, such as the beach excursion, conference dinner and Plants for Health Charity dinner.

Already in the preparation to this conference we experienced the extraordinary enthusiasm and dedication of the Organizing Committee around the Congress President **Prof Andreana Assimopoulou** from the Aristotle University of Thessaloniki, and the many team members. Andreana facilitated everything the participants needed at a most impressive academic level and with a very strong personal touch with Mediterranean hospitality and charm. This is one of the foundations for an excellent scientific setting while at the same time caring for our safety, wellbeing, and culinary pleasures. We extend our most cordial thanks to Prof Andreana Assimopoulou, the whole Organizing Committee and the helping hands of so many volunteers.

Wishing you all a fruitful, enjoyable and safe meeting!

On behalf of the Executive Council

Judith M. Rollinger

GA President

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Venue

The GA 2022 meeting is going to take place mainly at the M2 building of Thessaloniki Concert Hall complex ‘Megaro Mousikis’.



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Thessaloniki Concert Hall | August 28 - 31, 2022 | Thessaloniki, Greece



ABSTRACTS

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Phytochemical profile and antigenotoxic potential of *Bergenia crassifolia* (L.) Fritsch methanolic extracts

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Bergenia crassifolia (L.) Fritsch (Saxifragaceae) is in use for over a century as a medicinal plant in the treatment of various ailments, such as gastritis, enterocolitis, cold, fever, headache, and diarrhea. The root, rhizome, and dried leaves of *B. crassifolia* are most frequently used for medicinal purposes as they showed significant antioxidant, anti-inflammatory, and anticancer properties, with adaptogenic effects as well [1, 2]. *B. crassifolia* has some characteristic constituents: bergenin, arbutin, and various tannins [1, 3]. The aim of the current study was to evaluate the chemical composition of methanolic extracts of *B. crassifolia* flowers (BCF), leaves (BCL), and roots (BCR) and to show their antigenotoxic effect towards free radical-induced DNA disruption in vitro. The extracts were obtained using accelerated solvent extraction (ASE). Their composition was analyzed using LC-HRMS analysis. Bergenin and arbutin were detected in all three extracts. Other phenolic compounds, such as quinic acid, ellagic acid, quercitrin, and (epi)catechin gallate were also detected in all *Bergenia* extracts. Besides, there were tentatively annotated some compounds from classes like mono- and sesquiterpene glycosides, phenolamides, and glycolipids that have never been detected in *Bergenia* species before. *B. crassifolia* extracts, particularly BCF and BCL, efficiently protected DNA against oxidative damage caused by hydroxyl and peroxy radicals in all applied concentrations (50, 100, and 200 µg/mL). The obtained data showed significant antioxidant and genoprotective potential of *B. crassifolia* that will be studied in detail, as well as the presence of some new compounds that have never been reported in *Bergenia* species so far.

[1] Shikov AN, Pozharitskaya ON, Makarova MN, Makarov VG, Wagner H. *Bergenia crassifolia* (L.) Fritsch – Pharmacology and phytochemistry. *Phytomedicine* 2014; 21: 1534-1542

[2] Shikov AN, Pozharitskaya ON, Makarova MN, Dorman HJD, Makarov VG, Hiltunen R, Galambosi B. Adaptogenic effect of black and fermented leaves of *Bergenia crassifolia* L. in mice. *J. Funct. Foods*. 2010; 2: 71-76

[3] Ghédira K, Goetz P. Bergénie, *Bergenia crassifolia* (L.) Fritsch (Saxifragaceae). *Phytothérapie* 2017; 15: 326-331



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