

Program of the International Public Workshop

Native Brazilian plants as a source of innovative raw materials for a sustainable agricultural and cosmetic use contributing to an enhanced bioeconomy

Bergische University of Wuppertal, Germany
Campus Haspel, Pauluskirchstr. 7, Wuppertal, Lecture Hall HC.00.20

Morning session: Relevance, application, socio-ethical and socio-economic impact

09:30 a.m. Welcome & Opening

Vice-President Professor Stefan Kirsch, Bergische University of Wuppertal, Germany
Professor Jörg Rinklebe, Bergische University of Wuppertal, Germany

09:40 – 10:00 a.m. Introduction about the project and the German part

Professor Jörg Rinklebe, Bergische University of Wuppertal, Germany

10:00 – 10:20 a.m. Overview about the Brazilian part of the project

Professor Vanessa G. Pasqualotto Severino, Universidade Federal de Goiás (UFG)

10:20 – 10:35 a.m. Knowledge about Grinding and homogenizing - Importance for reliable analytical results (and time saving) Dr. Tanja Butt, Company Retsch

10:35 – 10:55 a.m. Joint Group photo

10:55 – 11:20 a.m. Visiting the Mobile Laboratory of our sponsor Company Retsch

<https://www.retsch.com/>

11:20 a.m. 11:40 a.m. Development of a cosmetic product using Brazilian plants

Presenter: Deborah Carneiro Nunes de Lima, Livealoe company (virtual presentation)

11:40 a.m. 12:00 a.m. Development of the anhydrous sunscreen with plant extracts

Presenter: Prof. Vânia Rodrigues Leite e Silva (UNIFESP - Diadema)

12:00 – 12:20 a.m. Benefits for the Indigenous Woman Community

Implementation of an Agroforestry System (AFS) in Collaboration with the Local Community at the Canudos Settlement, Goiás, Brazil

Representative of Guerreiras de Canudos / Presenter: Leniany Patrícia Moreira

12:20 – 12:40 p.m. Q&A session, round table discussion

12:40 – 01:15 p.m. Lunch

01:15 p.m. – 03:00 p.m. Afternoon session: Scientific News, Part I:

- Nutrients, trace elements and rare-earth elements in native plants and soils from “el Cerrado”, Brazil. Enrique Bernard Hernandez, Jörg Rinklebe, Wuppertal, Germany.
- Screening Brazilian Medicinal Plants for Bioactivity in a Human Inflammatory Model Philipp Gabor, Alexander Weng, Matthias Melzig FU Berlin, Germany.
- Soil attributes: Innovative Technological Solutions for Sustainable – Tassia Tuane Moreira dos Santos, Wilson Mozena Leandro, Maria Elisa Borges, Daniela Ribeiro de Souza, Maria Luiza Barbosa Gontijo, Julia da Silva Araujo, Renata Santos Ribeiro. EA-UFG, Goiânia, Brazil (virtual presentation)
- Update on Results: Germination, *In Vitro* Establishment, and Morphoanatomical Studies of Native Species for Conservation and Sustainable Production. Sérgio Tadeu Sibov, Alma Júlia da Silva, Cristiane dos Santos, Celice Souza Novais, Málaque Abdalla Nunes Freitas, Wanessa Amorim Dias, Maria Tereza Faria, Edson Ferreira Duarte. UFG, Goiânia, Brazil (virtual presentation)
- Bioactive Potential of Underexplored Parts of *Dipteryx alata* Vogel and *Mauritia flexuosa* L. f. Matheus Silva de Barros, Jaqueline Alves Barbosa, Vanessa Gisele Pasqualotto Severino, UFG, Goiânia, Brazil (virtual presentation)
- Chemical studies and potential applications of natural products for cosmetics: updated results from *Varronia curassavica* Jacq.

João Vitor Souza de Oliveira, Lucilia Kato, UFG, Goiânia, Brazil (virtual presentation)

- Chemical studies and potential applications of natural products: updated results from *Mandevilla velame* (A.St.-Hil.) Pichon and *Siparuna guianensis* Aubl.
Emiret Otoni de Faria, Luis Felipe Lima Guimarães, Lucilia Kato, UFG, Goiânia, Brazil, (virtual presentation)
- Screening of Plant extracts against elastase and tyrosinase
Adriana Pereira Mundin Guedes Macêdo, Isadora Gonzaga da Silva, Kyuri Ribeiro, Lorena Ramos Freitas de Sousa UFCAT Catalão, Brazil (virtual presentation)
- Dereplication of compounds from *Baccharis trimera* using LC-MS/MS based molecular networking
Lorena Ramos Freitas de Sousa, Isadora Gonzaga da Silva, Wéldion Gonçalves Mesquita Júnior UFCAT Catalão, Brazil.

Q & A session and general discussion

03:00 p.m. – 03:30 p.m. Coffee break / refreshments

03:30 p.m. – 06:00 p.m. Scientific News Part II:

- Molecular networks in the elucidation of secondary metabolites from the ethanolic extract of the leaf/stem of *Croton antisiphiliticus* Mart
Gilmar Aires da Silva, Adriana Pereira Mundin Guedes Macêdo, Vanessa Gisele Pasqualotto Severino, Richele Priscila Severino, UFCAT Catalão, Brazil. (virtual presentation)
- Chemical Characterization of *Lippia origanoides* Kunth and Its Potential Applications
Joyce Lindsay Vieira, Adriana Pereira Mundin Guedes Macêdo, Vinícius Elcio Cortez da Silva, Richele Priscila Severino, UFCAT Catalão, Brazil. (virtual presentation)
- PLS-DA as a Tool for Discrimination of LC-MS, NMR, and GC-MS Metabolomic Profiles from Medicinal Plant Extracts and Essential Oils
Thais Bertolino Vieira Dantas, Romário Pereira da Costa, Elenilson Godoy Alves Filho, Jordano Paulo Pereira dos Santos Junior, Vanessa Gisele Pasqualotto Severino, Richele Priscila Severino, UFCAT Catalão, Brazil. (virtual presentation)

- Chemical profiling and safety evaluation of *Piper marginatum* Jacq. (Piperaceae) extracts for cosmetic applications
Isabella Bibiano Pedroza Martins, Patrícia P. Augusto, Carolina R. da Silva, Patrícia S. Lopes, Vânia R. Leite e Silva, Adriana P. M. G. Macedo, Lorena R. F. de Sousa, Thiago A. M. Veiga (virtual presentation)
- Exploring the chemodiversity of *Lafoensia pacari* A. St. - Hill (Lythraceae): a Cerrado plant for phytocosmetic development
Mariana Andrade Galhardoni, Patrícia P. Augusto, Carolina R. da Silva, Patrícia S. Lopes, Vânia R. Leite e Silva, Adriana P. M. G. Macedo, Lorena R. F. de Sousa, Thiago A. M. Veiga (virtual presentation)
- Good Practices and Sustainability in Family Farming: Microbiological Evaluation of Brazilian Native Plants
Patricia Santos Lopes, Eloiza Antonia Araujo Linhares, UNIFESP-Diadema, Brazil
- *In vitro* safety evaluation of phytocosmetics and bioproducts derived from native Brazilian plants
Patricia Santos Lopes, Patrícia Prado Augusto, Júlia Luíza André Santana, UNIFESP-Diadema, Brazil
- Innovation in photoprotection: anhydrous formulation with native plant extracts and antioxidant properties
Carolina Rufino da Silva, Vânia Rodrigues Leite e Silva, UNIFESP-Diadema, Brazil (virtual presentation)

Q & A session and general discussion

17:45 Concluding

Registration

The workshop is open for all students, all members of the Bergische University of Wuppertal as well as for the public. The entrance is free. Registration is not required.

The workshop will be held in Hybrid Modus to enable all Brazilian partners the attendance!