

# Austin Journal of Analytical and Pharmaceutical Chemistry

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### Special Edition Invitation

#### Chemical, Biological and Molecular Target Characterization of Botanical Extracts

Botanical extracts require a modified approach towards their refinement, analysis and evaluation for quality, efficacy and safety to develop high quality botanical-derived medicines. This approach necessitates an integrated, multidisciplinary team of scientific and clinical investigators from various disciplines such as synthetic organic chemistry, cellular and molecular biology, preclinical and clinical pharmacology and toxicology, and biopharmaceutical Sciences. Expertise in engineering, computer science, and bioinformatics also is required to help integrate new advances in technologies such as high throughput screening of compounds and in silico modeling. This combination approach provides multiple measures that aid in the assessment of purity, bioavailability, toxicity, metabolism, and molecular target profiling of botanical extracts. The ultimate goal of this complex multi-step process is to identify promising botanical constituents that can be used as dietary supplements or preventive/therapeutic agents for a wide variety of health problems and diseases such as cardiovascular and metabolic diseases, infections and immune system disorders, endocrine disruptions and malignancies ... etc. There is a growing interest in the interdisciplinary research that aims to identify new botanicals that offer fewer side effects, fewer hospitalizations, improved quality of life, increased productivity, and importantly, extended lives. Thus, we invite authors to submit original research and review articles that advance our knowledge in the field of botanical-derived medicines and revolutionize future treatment strategies.

The current special issue is open for manuscripts that are broadly related to:

1. Basic science research in botanicals.
2. Novel methods of isolation and purification of active compounds (phytochemistry).
3. Chemical characterization and standardization of active botanical compounds.
4. Biological evaluation and mechanism of action studies.
5. Characterization of metabolism, bioavailability, safety, and pharmacokinetics of active species contained in botanicals.
6. Determining safety and efficacy by preclinical models and clinical trials.

Best Regards,

Abeer M. Mahmoud, MD., Ph.D.

Lecturer of Pathology, South Egypt Cancer Institute, Assiut University, Egypt.

Research Assistant Professor, College of Applied Health Sciences, University of Illinois at Chicago, Chicago, IL, USA.

**Editorial Office:** APG- Austin Journal of Analytical & Pharmaceutical Chemistry

Austin Publishing Group

# 46 Casselberry Way,

Monroe Township,

New Jersey 08831, USA

Tel: 201-655-7075

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