SL-1

Evaluation of the ethnobotanical studies held after the establishment of the republic of Turkey

K. Alpınar
BIOTA Vakfı, Kıstıklı Caddesi, Haluk Türksoy Sokak no. 11, 34662, Altunizade, İstanbul, Turkey

The leading factors of the rich plant diversity in Turkey are considered to be geological, edaphic and meteorological factors. Approximately 10000 plant species of which c. 3300 are endemic are recorded to present natural distribution on these lands.
Knowledge on the plants of the human beings who lived in Anatolia as a hunter-gatherer in the ancient ages then as settled down which has been gathered by means of trial and error method has reached today by verbal and written tools.
It should be kept in mind that realizing scientific evaluation on these plants and their usages which has been used by different civilizations in Anatolia for ages can lead to very positive conclusions for the humanity.
It was aimed to gather and review and subsequently to establish an archive for advanced researches, the articles which generally exist mainly in the folkloric journals in Turkey in the years subsequent to the establishment of the republic.
Plants and usages thereof that is not used anymore or used differently by presenting the relationship of the knowledge with the past will be apparent and this will contribute not only to the plant diversity but also to the ethnobotanical prosperity of Turkey.

SL-2

Neurophysiological characterization of plant-derived preparations with respect to biomarkers of cognition in humans: l-theanine

W. Dimpfel
Justus-Liebig-University Giessen c/o NeuroCode AG, 35578 Wetzlar, Germany

Electroenzephalography has been used for the characterization of drug effects earlier. Interpretation of data has advanced very much with the combination of EEG recording with psychometric testing. The present evaluation is based on 56 subjects from three consecutive studies suffering from mild cognitive impairment as verified by means of the validated interactive questionaire "DemTect". Analysis of the data by Fast Fourier Transformation using electric source density revealed differences of electric power changes depending on the type of task. Different brain areas could be found to be involved during different demands. Statistically significant increases of fronto-temporal delta and theta power during a memory task and arithmetic performance were accompanied by significant decreases of central alpha2 and beta1 power in comparison to a placebo group. Performance of a mere concentration task was dominated by significant central alpha2 power decreases. After intake of 250 mg of L-theanine further increases of fronto-temporal delta, theta and alpha1 power could be recorded already 1 h after intake with a maximum after 3 hours. Results indicate better mental fitness in the presence of higher relaxation. Psychometric results were not different between the placebo group and the L-theanine group due to great scatter and small number of participants.

SL-3

Medicinal plants research in south east Europe and demand for its coordination

A. Höniges[1], K. Wegmann[1,2]
[1]Universitatea de Vest Vasile Goldis, Arad, Romania, [2]Eberhard-Karls-Universität Tübingen, Germany

There is a great potential for medicinal plants in the South East European Countries. Dominant field of current research is the occurrence, frequency and distribution of medicinal plant species, mostly restricted to one of the member countries. Pharmacists or chemists analyse medicinal plants for their active contents. There is an urgent need for fundamental research on geographical and biochemical races, on the influence of soil, climate and weather; secondary metabolites (active matter) frequently are increased by water stress conditions: drought or salinity. Little is known about medicinal value or mode of action, in particular on synergistic effects of several contents. For isolated active compounds their proof of activity against a disease is compulsory.
Another interesting field is the production of active matter by cell and tissue cultures or by hairy root cultures, examples will be shown. A more recent field of research studies the chemical structures of active compounds, and uses them as leading structures for more active or more specific preparations.
Coordinated interdisciplinary research will be required. Since medicinal plants are an important field in all the involved countries, and since South East Europe may be supported by the European Union, the setup of a good program could be useful. Possibilities will be discussed.