

other  
uence

part  
riest  
rtal  
sed  
the

o-  
ly  
e

## FOREWORD

In Brazil, Chemistry and Pharmacology of Natural Products follow separate pathways. Exactly as chemical work usually stops short of Pharmacology, pharmacological studies frequently do not consider their obvious chemical basics. Worse, both areas lack general objectives, each investigator pursuing a personal line of interest. Hence, unless we try to break this stalemate and set out to define priorities with respect to medicinal plants in this country, we cannot consider ourselves ready for a collaborative effort.

The Brazilian-Sino Symposium on Chemistry and Pharmacology of Natural Products illustrated the chinese situation in this area. China possesses abundant resources of medicinal plants and, with 5000 years of documented history of their use, a rich tradition in popular medicine. In more than 30 Institutes of Materia Medica with staffs of up to 600, among full professors (20), associate professors (60), investigators (65), associate investigators (75), technicians (135), graduate students (60), administrative personal (185), China operates a coordinated program with the following general objectives: investigation in traditional and popular medicine; isolation and characterization of active principles; chemical transformation of these principles; development of new methods for these objectives; development of new drugs; studies in the relation structure and activity; mechanisms of drug action; operation of pilot plants for the production of pharmaceuticals. Hence each of these Institutes takes the popular remedy from its plant source up to the counter of the pharmacy.

It is an illusion to think that we, in Brazil, are ready to imitate the chinese example. We lack infrastructure for a coordinated effort. Why? Science in Brazil was born in small institutes. During the sixties it was expelled from these institutes and took refuge in universities. However, it so happens that the principal objective of a university is not research, but the formation of human resources. Academic research serves for the education of graduate students. This requires a divergent spectrum of activities, not a single utilitarian objective. Besides, such a unique effort is difficult to follow due to our present lack of hierarchic structure and excessive administrative burden.

Consubstantiation of these reflexions were presented by the Symposium to 900 participants assisting 68 lectures: 27 (40%) on Pharmacology, 25 (37%) on Chemistry, 12 (17%) on Botany and 4 (6%) on Politics and Administration in this area. In form of posters, all of them in english, 222 contributions remained exposed during the entire duration of the Symposium. Chemical aspects on components of plant extracts constituted 70% of the total number of posters. However, only a few (27) described isolation and structural elucidation of novel compounds. The major part of the posters related isolation and identification of active principles and other plant constituents which had already been described previously in the literature. Unfortunately also a substantial part of posters on pharmacological activity referred to crude extracts or to chemically undefined products. Ten posters were concerned with biogenetic interpretations, ethnobotanic correlations and evolution of species. A series of posters (5) informed on the utilization of popular and ethnobotanic knowledge concerning evaluation of the disponibility of resources in traditional medicine in Brazil. Synthesis of active compounds using natural products as models was registered in 8 posters. Clearly of great utility, 19 posters described application of analytical techniques for the isolation and purification of compounds from plants and one poster was concerned with the quality control of plant derived drugs.

The designation "medicinal plants" is a very popular one. Is the study of such plants in consequence amenable to an amadoristic approach? The titles of 14 coordinated sections belie this idea. Here they are: Sources of natural products: Neolignans, chemistry and biological activity. Immunoregulators of vegetable origin. Terpenoids, chemistry and biological activity. Natural products and central nervous system. Insects and natural products. Toxic plants. Endemic diseases. Antitumoural activity. Potentially useful natural products. Proteins of seeds from Leguminosae with biological activity. Pharmacology of natural products.

In conclusion, the Brazilian-Sino Symposium left a message of importance: Should we wish not only to enrich our knowledge on natural phenomena, but to further practical applications for the benefit of humanity, we must adopt the chinese model and organize ourselves in institutes specialized in Chemistry and Pharmacology of Natural Products.

This was the conclusion I annouced, with the enthusiastic approval of the participants, upon declaring the Symposium adjourned until the next event to take place 1992 in China.

Mas para o meu desencanto  
O que era doce acabou,  
Tudo tomou seu lugar  
Depois que a banda passou,  
E cada qual no seu canto,  
E em cada canto uma dor,  
Depois que a banda passou  
Cantando coisas de amor.

*Otto Richard Gottlieb*