



TOGETHER
for a sustainable future

OCCASION

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UNITED NATIONS INDUSTRIAL ORGANIZATION

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2000

PROJECT PROPOSAL

PART A - BASIC DATA

COUNTRY : Korea/Poland/Hungary
PROJECT NUMBER :
PROJECT TITLE : "Search for Biologically Active Compounds from Oriental Herbs and the total synthesis of the corresponding compounds".
Twinning Agreement between the Korea Institute of Science and Technology (KIST), Seoul, Korea and the Institute of Medicinal Plants (IMP), Poznan, Poland and Central Research Institute for Chemistry Hungarian Academy of Science, (CRIC), Budapest, Hungary
SCHEDULED START : March, 1990
SCHEDULED COMPLETION : Feb., 1991
ORIGIN AND DATE OF OFFICIAL REQUEST : May, 1989, KRICT, Korea/IMP, Poland/CRIC, Hungary
GOVERNMENT COUNTERPART AGENCIES :
UNIDO CONTRIBUTION : US \$ 30,000
GOVERNMENT CONTRIBUTION : Korea: US\$ 50,000; HungaryUS\$ 10,000; Poland: US \$ 50,000
CURRENCY REQUIRED FOR UNIDO INPUT :
CONVERTIBLE :
OTHER :
UNIDO SUBSTANTIVE BACK-STOPPING SECTION :
PROGRAMME COMPONENT CODE :
PROPOSAL SUBMITTED BY : KIST and IMP
DATE OF SUBMISSION :

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PART B-NARRATIVE

1. Background and Justification

Oriental countries introduced to the field of medicine many original drugs derived from traditional natural products. But up to now, study of these drugs are in different levels of implementation with varying degree of comprehensiveness. For instance, traditional chinese drugs are recognized by WHO, but only part of them is used in Europe, because of unfounded prejudice on one hand, and unknown composition of these drugs on the other. Different standardization system of east and west is also a problem.

However, with the assistance of rapidly developing analytical method, it becomes possible to verify the structures of different herbs and to measure its fractions in them. These knowledges can be assembled for developing new generation of natural drugs. Concurrently, more than everbefore, co-operation at various levels among research organizations must breaks national and regional boundaries and establish international links if meaningful results in drugs are to be achieved.

Institute of Medicinal plants in Poznan, Poland has been for many years searching different herbs with the aim to obtain drugs effective in various illness. Considering the fact that principal line of this investigation is on antisclerotic drugs with which decrease of lipids and cholesterol in blood is sought, various oriental herbs seem to be promising candidates.

KIST in Korea has been also investigating biological activities of various oriental herbs for pharmaceutical use, and looking for exchange of compiled informations on oriental herbs with interested parties.

CRIC, Hungary has been involved in a programme in which study on relationship between molecular structure-biological activity and chemical reactivity of herbicide antidotes of acetal and ketal types is the major objective.

With these common interests shown by Poland, Korea and Hungary, we hereby propose trilateral co-operation in research on oriental herbs.

2. Special Consideration

The major purpose of the project is to lay the basis for establishment of multilateral research co-operation sharing experiences in developments, standardization and pharmacological investigations of new antisclerotic (or immunomodulatory) drugs between KIST, IMP and CRIC

3. Objectives

Principal objectives of this research plan are:

- development of new geriatrics drugs based on different herbs
- elaboration of new formula and technology of drugs
- recognized of pharmacological activity specially geriatrics, antisclerotic and immunomodulatory
- elaboration of isolation, identification and standardization methods for compounds like alcaloids, glucosides, polyacethylenic compounds
- establish the access to sources of raw material.

4. Project Outputs

It is expected that through implementation of this project, research institutes involved will increase their capabilities to become focal points of innovation and technology improvement in their countries. The activities which would be done by the three research institutes jointly supported by UNIDO, are expected to produce:

- Discovery of New biologically active compounds and the development of Pharmacognosy.
- Isolation of new biologically active compounds for use of pharmaceuticals or a lead compound for the development of new pharmaceutical

5. Project Activities

In order to facilitate the attainment of the main objective of the project, involved institutes, on the basis of the time schedule and budget of the project will exchange researchers, train researchers, and organize a symposium to exchange and to discuss the experiential results.

6. Project Input

UNIDO will provide US \$ 30,000 for the period March, 1990 - Feb., 1991 in convertible currency and equivalent of US \$ 110,000 in local, non-convertible currency will be provided by the countries concerned (Korea: US \$ 50,000, Poland: US \$ 50,000 and Hungary US \$ 10,000).

7. Evaluation Plan

The project will be evaluated during the implementation and upon completion by the NGOs, Business and Industrial Institutions Co-operation Section, PDES with participation of the representatives from KIST and IMP and CRIC.

8. Envisaged Follow-up

The first phase of this three-year project will end in Feb., 1991. In the light of research outputs obtained during this phase, need for long-term follow-up project will be carefrillg considered by the NGOs, Business and Industrial Institutions Co-operation Section, and PDES.

PART C _ CLEARANCE AND APPROVAL

Cleared by:

Date:

Date: .

Approved by:

Date:

Amount approved

Source of Funds:

Convertible Currency:

Other

Date PAD requested:

Annex 1

WORKING PLAN 1990/1991

1. Elaboration of basis (selection of herbs in interest, sources and establish the direct contact with other institutes)
2. Chemical Investigation, (elaboration of method, isolation of biologically active fraction or compounds, methods, of standarization)
3. Pharmacological Investigation (Screening, specific tests)
4. Technology elaboration (technology, drug forms)
5. Exchange of staff
6. Exchange of technical information

Annex 2

FINANCIAL CONTRIBUTION OF UNIDO TO THE WORKING PLAN (IN US DOLLARS)

1. Expert exchange	2,000
2. Access to raw materials	6,000
3. Apparatus supply and chemicals	10,000
4. Meeting organization	2,000
5. Additional training cost	1,000
6. International congress or symposium participations	--- 1,000 ---
TOTAL	30,000