

# INSTITUTE OF INTERNAL MEDICINE, SIBERIAN BRANCH OF THE USSR MEDICAL ACADEMY: INTERNATIONAL RESEARCH PROGRAMS IN CHUKOTKA

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The problems of circumpolar health have been studied in different countries for many years. There is substantial experience in this field of medicine. In modern times international scientific cooperation is necessary for the rational use of the available international experience, increasing effectiveness, and stimulating investigations.

The Institute of Internal Medicine started working on international projects in Chukotka in 1988. Three programs are presently being conducted in Chukotka (Figure 1).

An agreement was signed to conduct joint investigations in Chukotka region, USSR and Keewatin region, Canada between the Institute of Internal Medicine and the University of Manitoba. The subject of the study is "Epidemiology and prevention of

chronic noncommunicable diseases in Native population of the North". The aim of the study is to investigate the characteristics of chronic noncommunicable diseases and to work out methods of prevention. In 1988, the methods of investigation were agreed upon, the size of the population sample was determined, basic medical-demographic characteristics of Chukotka region were performed. The delegations from Canada and the USSR visited the regions chosen for the project in both countries. Population screening is planned to be carried out in autumn, 1990. Registration and analysis of all myocardial infarction and stroke cases among native populations of Chukotka and Canada are being done. All the causes of death are also registered.

The Institute enjoys scientific co-operation with the University of Alaska, USA on the problem "Nutrition, the role of poly-unsaturated fatty acids and genetic risk factors in the origin of cardio-vascular diseases in the North". The methods of evaluation of nutrition, morbidity and mortality from cardio-vascular diseases among native populations have been determined. The aim of the study is to investigate the influence of nutrition on morbidity and mortality from cardio-vascular diseases in native people of Chukotka and Alaska. The pilot study is planned to start in 1990.

The Institute also has a project with the University of Alaska studying the genetic links between the Native population of Siberia and Alaska. The methods of analyzing mitochondrial DNA polymorphism are being developed. The method of polymerase chain reaction for enzymatic amplification of DNA fragments and its extraction has been initiated in the native population of the Altai and Chukotka regions.

Addictive behaviour and disorders are being studied in Novosibirsk and Alaska according to the project "Biological markers of alcoholism and genetic predispositions to it". This collaborative study is aimed at intensification of links between genetic predisposition and behavioural indices that could lead to identification and prediction of people at risk for alcoholism.

Cooperation with foreign scientists ensures qualitatively new level of research work in the Institute of Internal Medicine. First, the exchange of information, methods of investigation and work together mutually enrich the research work of both participants of the collaborative study. The Institute of Internal Medicine has borrowed some methods of

## FIGURE 1. INSTITUTE OF INTERNAL MEDICINE

### Bilateral and Multilateral Agreements:

1. WHO project "MONICA" (Monitoring of Trends and Determinants in Cardiovascular Diseases) 1984 - 1993
2. WHO project "CINDI" (Countrywide Integrated Noncommunicable Diseases Intervention Program) 1985 - 2000
3. Projects under the Council for Mutual Economic Aid:
  - "Epidemiology and Genetics of Dislipoproteidemia", 1986 - 1990;
  - "Prevention of Vascular Diseases of Brain", 1987 - 1990;
  - "Monitoring of Patients with Arterial Hypertension", 1986 - 1990.
4. Siberian-Alaskan Medical Research Program:
 

Themes: - "Coronary heart disease in Alaskan and Siberian native population";

  - "Addictive behaviour and disorders in Alaska and Novosibirsk";
  - "Linking native Alaskans to their Siberian ancestors via analysis of mitochondrial DNA".
5. Siberian-Canadian project: "Epidemiology and Prevention of Chronic Noncommunicable Diseases in Native Population of the North", 1988 - 1992.
6. Siberian-Polish project: "Dietological Aspects of Prevention of Cardiovascular Diseases", 1988 - 1992.
7. Siberian-Slovakian project: "Mechanism of Antihypoxic Effect of Membranotropic Drugs", 1986 - 1990.

investigations from American and Canadian scientists. And in turn Canadian and Alaskan colleagues employ our knowledge of WHO methodologies, criteria of evaluation and standardization of investigations.

Secondly, the implementation of investigations on common programs and standardized methods allows us to obtain comparable data in Chukotka, Alaska and Canada. This elucidated the international significance of the obtained investigations.

Third, each country has its own experience in the

organization of medical care for northern populations, training medical staff, and preventive measures. The exchange of this experience is very helpful for the improvement of medical services. Moreover, the exchange of the experience allows us to fulfill the research with the help of available methods without spending extra time and money. And, at last, international collaborative programs contribute to the strengthening of peace, promote the establishment and development of friendly relations between scientists of different countries.