

# U.S.-U.S.S.R. Cooperation in Health: the First 5 Years

ROBERT D. FISCHER, MD, MPH

ALTHOUGH INFORMAL CONTACTS between U.S. and Soviet health specialists have existed since the Great October Socialist Revolution of 1917, the first official relations did not begin until 1925. In that year, Missions of the People's Commissariat for Health, the Soviet Red Cross, and the Red Crescent Society were established in the United States to promote humanitarian efforts in health and assist with visits of health specialists to the United States and the Soviet Union. For the next 25 years, however, scientific interchange between the countries was infrequent and sporadic.

By the 1950s, even while political relations were at their all-time low, the many common interests of U.S. and Soviet health professionals became recognized and interchanges increased. In 1954 Dr. Boris Petrovsky, the present Minister of Health of the U.S.S.R., led a delegation to the Second World Congress on Cardiology in Washington, D.C., and visited numerous cardiac centers in the United States. A year later, an American chest surgeon reciprocated

that visit, thereby initiating the first "exchange" of health specialists. In 1956 and 1957, five additional informal exchanges of scientists were successfully undertaken in the health field.

## Exchange Agreements

The reciprocal exchange of health personnel was formalized first in the U.S.-U.S.S.R. Intergovernmental Agreement for Exchanges in the Cultural, Technical, and Educational Fields of January 27, 1958. Specific numerical quotas for health exchanges were detailed in this agreement. Similar exchange agreements, signed periodically by leading government officials, provided the major organizational framework for relations in health until 1972.

Between 1958 and 1971, approximately 70 delegations of health specialists, more than 200 persons, were exchanged between the two countries. These exchanges permitted specialists to become acquainted with U.S. and Soviet achievements in the medical sciences and to define further their many areas of mutual interest: neoplasia, cardiovascular disease, poliomyelitis, arthritis, and so forth. During this period, insights also were gained into the organizational requirements for future cooperation, especially in the logistics for exchanging persons, material, and information.

## Exchange of Letters

In 1971, a major development in U.S.-U.S.S.R. health relations was initiated in Geneva during informal talks between U.S. and Soviet delegations to the World Health Assembly. These and other subsequent negotiations between representatives of the U.S. Department of Health, Education, and Welfare and the U.S.S.R. Ministry of Health led to the commitment to begin new cooperative efforts in medical

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□ *Dr. Fischer has served as director, Office for Europe, Office of International Health, Public Health Service, and U.S. Executive Secretary to the U.S.-U.S.S.R. Joint Committee for Health Cooperation since 1974.*

*Except for the two sections, Benefits and Discussion, this article is largely an edited version of the introduction to the 5-year report of the U.S.-U.S.S.R. Joint Committee for Health Cooperation. Reprints of this article, the 5-year report of the Joint Committee, and other documents discussed in the article can be obtained from Dr. Fischer, Office of International Health, 18-90 Parklawn Bldg., 5600 Fishers Lane, Rockville, Md. 20857.*



*DHEW Secretary Joseph A. Califano, Jr. (right) and U.S.S.R. Ambassador Anatoli Dobrynin (center) at the Telex linking the Department with the Ministry of Health in Moscow. At left are Dr. V. Stepanov, Medical Counselor of the U.S.S.R. Embassy and Dr. Julius B. Richmond, DHEW Assistant Secretary for Health.*

science and public health, primarily through joint research projects. On February 11, 1972, then Secretary of the Department of Health, Education, and Welfare, Elliot L. Richardson, and the U.S.S.R. Minister of Health, Academician Petrovsky, signed and exchanged letters confirming their Government's intention to realize a new program of health cooperation. Three priority areas for cooperation—cancer, heart disease, and environmental health—as well as the collaborating institutions responsible for developing the specific activities were identified. These letters also established the U.S.-U.S.S.R. Joint Committee for Health Cooperation and charged it with implementing the practical aspects of the understandings.

The First Session of the Joint Committee was held in March 1972 in Moscow. Dr. Roger O. Egeberg, then Special Assistant to the President, and Dr. Dmitri D. Venedictov, U.S.S.R. Deputy Minister of Health, co-chaired the meeting. Both sides identified

research institutions and staff that would be responsible for undertaking joint projects in 1972-73. Definitive plans of work in each priority area were developed by the staff and reviewed by the Joint Committee. The Joint Committee also established several general logistical principles for implementing this new program; for example, the allocation of financial responsibilities for cooperative efforts, per diem rates for exchange scientists, and provisions for emergency health care for specialists visiting the other country. All understandings reached during the First Session of the Joint Committee were documented in an official intergovernmental memorandum signed by the co-chairmen.

### **Intergovernmental Health Agreements**

Within 2 months of the First Session of the Joint Committee, the commitment to the Program for Health Cooperation was elevated to the level of an intergovernmental agreement. During the visit of

President Richard M. Nixon to the Soviet Union in May 1972, for his first summit meeting with Soviet leaders, negotiations were concluded for establishing four bilateral agreements for scientific cooperation: health, environmental protection, space, and science and technology. On May 23, 1972, the U.S.-U.S.S.R. Agreement for Cooperation in Medical Science and Public Health was signed by the U.S. Secretary of State, William P. Rogers, and the U.S.S.R. Minister of Health, Academician Petrovsky. This agreement reaffirmed all understandings reached in the previous exchange of letters earlier that year.

In March 1973, the possibilities for expanding cooperation in the area of artificial heart research were discussed at the Second Session of the Joint Committee, held in Washington, D.C. Just over a year later, during President Nixon's second summit meetings in Moscow in June 1974, and after much discussion between scientists in the two countries, a second bilateral health agreement—the U.S.-U.S.S.R. Agreement for Cooperation in Artificial Heart Research and Development—was signed by then Secretary of State, Henry A. Kissinger, and the Soviet Minister of Foreign Affairs, Andrei A. Gromyko. The agreement also charged the Joint Committee for Health Cooperation with responsibility for implementing the scientific aspects of this new commitment.

### **The Joint Committee**

In the 5 years since the signing of the original inter-governmental health agreement, the U.S. Department of Health, Education, and Welfare and the U.S.S.R. Ministry of Health, through the Joint Committee, have undertaken significant efforts in organizing the cooperative program and in insuring its mutual benefits. The Joint Committee generally has met on an annual basis, alternately in the United States and Soviet Union. During the meetings, the Joint Committee has developed the organizational procedures for all cooperative activities, has defined specific areas of joint studies, has identified the responsible scientific coordinators and institutions for each problem area, and has monitored and evaluated the cooperative activities. All understandings of the Joint Committee are duly documented in memoranda of the specific sessions and signed by the co-chairmen.

Within this 5-year time frame, the Joint Committee has overseen not only the development of cooperation in the three initial priority areas but also its enlargement by the inclusion of arthritis and influenza. Cooperation in artificial heart research

and development has been fully integrated into the overall program. A more limited project area dealing with the organic basis of schizophrenia was also included in the cooperative program in 1975, and special efforts have been given to exploring the potentials of future cooperation in the fields of eye disease, biomedical communications, occupational health, and the organization of health services.

In evaluating areas of cooperation, either for their potential as new activities or for their effectiveness as ongoing studies, the Joint Committee has recognized specific underlying criteria which should be met. It has noted that joint studies should:

promote progress in the most important areas of modern health and medical science;

have the potential to make a contribution to the solution of these problems with greater scientific validity and in shorter periods of time than could be achieved unilaterally; lead to a more effective use of resources and potentials of each country; and,

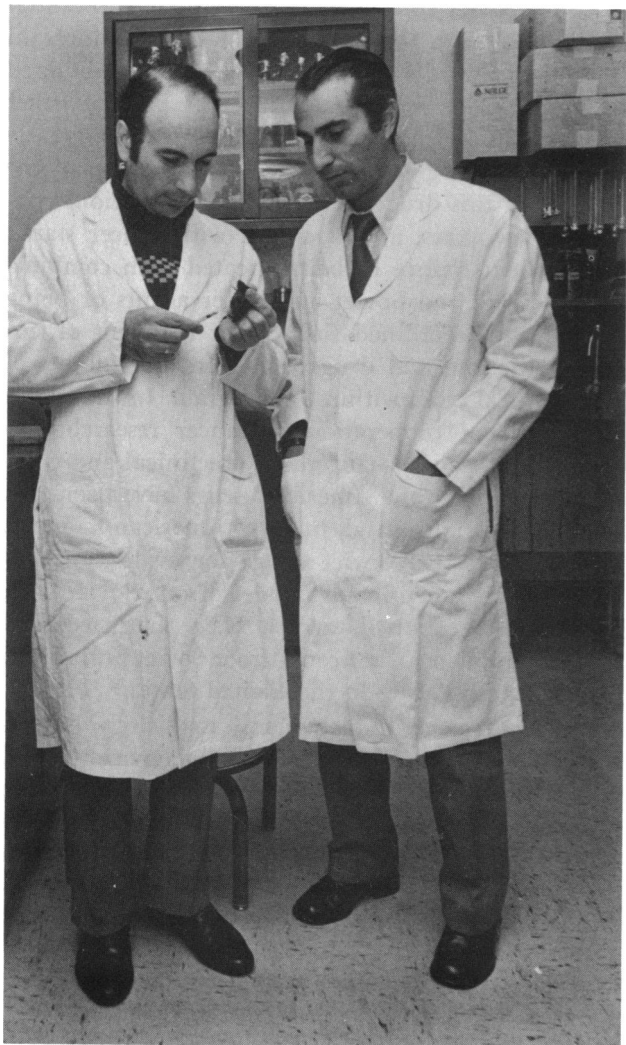
promote the improvement of the methodological bases and quality of research in the specific area, with particular reference to standardizing methodologies in order to make unilateral and joint research results comparable.

The Joint Committee also recognized its role in coordinating its activities with and in assisting other organizations not directly involved in joint studies. Since the incipience of the program, the Joint Committee has repeatedly expressed its resolve to coordinate, where possible, bilateral cooperative activities with related efforts of the World Health Organization. On numerous occasions, the Joint Committee and program coordinators have also encouraged and facilitated communications between a broad range of scientists and health institutions in the two countries.

### **Problems and Achievements**

As can be expected, numerous difficulties have been encountered in implementing this effort between two countries with such different social, political, and economic foundations. Great disparity between the two national systems in health care delivery and in organizing and financing health research have presented special challenges to the Joint Committee. However, most of these obstacles have been resolved, and the program has achieved noteworthy successes.

In the beginning of the cooperation, many communications problems were encountered. On September 7, 1973, a unique and direct Telex link, capable of transmitting messages in either Russian or English, was established between the U.S. Department of Health, Education, and Welfare in Wash-



*Dr. Bagrat Garibjanian (left) injects mouse with anticancer agent while Dr. Aram Sudjian watches. The two Soviet scientists worked at the National Cancer Institute in Bethesda, Md., under the joint cooperation program.*

ington and the U.S.S.R. Ministry of Health in Moscow. This link has since proven indispensable in providing for rapid transmittal of scientific data and logistical information on joint research and exchanges.

Intellectual property rights which may arise from joint projects within the program have presented a special challenge to the Joint Committee. This issue was especially evident in the organization of cooperation on artificial heart research where technology of potential commercial value was expected to be developed. In 1976, during the Fourth Session of the Joint Committee in Moscow, and after much preliminary discussion by international authorities from both countries, agreement was reached on a resolution of this complex problem within the activities

on artificial heart research and development. In general, there has been agreement that either or both countries can further develop and commercially distribute technology which has been identified jointly. Preliminary understandings have also been reached on copyrights within the cooperation in oncology. It is now anticipated that specific questions on the disposition of intellectual property rights within any area of the program can be resolved quickly by using these established models.

While activities in the program have generally progressed in a satisfactory manner, the Joint Committee has recognized an unevenness in this progress. Some areas moved rapidly to intense joint research, while others remain in preliminary stages of exchanging background information and exploring the potentials of joint work. To the people involved in this work, slow progress has sometimes been a source of personal disappointment and dissatisfaction. The Joint Committee, however, has recognized that progress in a specific area is dependent upon many external factors existent at the time that such areas were identified. The state of the art in the area in each country, the contacts and mutual experience previously established by scientists, the existence of similar ongoing domestic projects of mutual interest, the number and range of scientists committed to such work in each country and the compatibilities of methodologies and resources—these circumstances play a major role in the challenge of initiating a joint activity. Although the Joint Committee has sought to encourage all activities of potential merit, it has fully recognized that some areas may ultimately prove unsuitable for joint research after more detailed information becomes apparent to scientists on both sides.

## Benefits

The U.S.-U.S.S.R. Program for Health Cooperation has been widely recognized as only part of the worthwhile effort to improve relations between the two countries through a broadening of understandings and a demonstration of the mutual benefits of cooperation. Both sides must be encouraged by the contribution this program has made to these political goals through achievements in joint scientific work in the area of health and medicine.

Within the first 5 years of cooperation, the program has grown from 3 to 5 priority areas plus 1 project area, and a special program in artificial heart research and development. Within these areas scientists are now conducting 75 discreet joint activities.

Since 1972, more than 550 visits have been made

by individual U.S. scientists to the U.S.S.R. for a total of about 370 man-months of work. In that same period, more than 400 visits were concluded by Soviet scientists to the U.S. for a total of more than 400 man-months of work. To discuss the results of specific areas and to develop detailed plans of work for future efforts, 92 scientific working meetings have been held in both countries.

In addition, more than 300 scientific papers have been published in the medical literature of both countries and in the proceedings of joint symposiums. Several joint monographs, in English and in Russian, have also been published within the program. Each of these publications represents a small but significant contribution to the scientific data base for improving the health and medical services of both countries. Joint epidemiologic studies have already provided important clues to risk factors associated with heart disease, the leading cause of death in the U.S. and U.S.S.R. Preclinical drug trials and comparative evaluations of clinical practice have led to improvements in the treatment of arthritis, heart disease, and cancer. In all areas, the intimate and timely sharing of information has provided the scientists of both countries with a better understanding of scientific advances derived unilaterally and has challenged them to incorporate this knowledge into current practices of prevention, diagnosis, and treatment. The long-term benefits of such challenges promise to result ultimately in improved health for all people.

The record of the tangible benefits of this program to the United States also has been growing. If, for example, a U.S. citizen were hospitalized tomorrow complaining of chest pain that is diagnosed as myocardial ischemia, there is a good chance he or she would be treated with nitrous oxide to relieve that pain and improve blood flow to the heart. This therapeutic regimen was first observed in the U.S.S.R. by a U.S. scientist participating in the Program for Health Cooperation. Although U.S. scientists were initially skeptical about the efficacy of nitrous oxide for this purpose, later U.S. clinical trials have found it beneficial and the therapy is now used in many U.S. centers.

If the heart pain were, in fact, a myocardial infarction, there is a chance the patient would be given hyaluronidase in an effort to test its ability to limit damage to the heart muscle. The use of this drug for this purpose was the subject of a unique cooperative study within the U.S.-U.S.S.R. Program for Health Cooperation. A centralized ambulance dispatch system in Moscow enabled U.S. scientists work-

ing with Soviet colleagues to accumulate substantial amounts of data on the utility of hyaluronidase in treating myocardial infarctions. The data obtained in the U.S.S.R. became an integral part of other U.S. studies and, according to U.S. scientists, greatly accelerated the growing scientific recognition of the benefits of this drug for myocardial infarction.

In a few years, a U.S. citizen with cancer stands an excellent chance of being treated with combinations of U.S. and Soviet anticancer agents or being treated with combined therapeutic regimens of surgery, radiation, and drugs that were the subject of joint clinical trials within the program. In the course of 5 years of cooperation in cancer research, 165 drugs have been exchanged for preclinical and clinical testing. Sixty-one American drugs have been sent to Soviet specialists and, in turn, American scientists have received 104 Soviet drugs for evaluation. Already the therapeutic advantages of one Soviet drug have been recognized, and a U.S. pharmaceutical firm has applied for a license from Soviet authorities to produce this drug in the United States.

Soviet advances in behavioral toxicology, underlying their methods for establishing environmental pollution standards that are sometimes much more stringent than those in the United States, have already challenged environmental health scientists in this country to reevaluate their methods for determining the hazards of certain environmental pollut-

*Dr. Julius B. Richmond, Assistant Secretary for Health (left) and Dr. Dmitri Venedictov, Deputy Minister of Health, U.S.S.R., exchanging the memoranda of the Sixth Session of the Joint Committee for Health Cooperation in October 1977.*



ants. As a result of the Program for Health Cooperation, U.S. scientists are now able to interpret, with much greater precision, a long history of Soviet research in behavioral toxicology. The time may not be far off when we can point to a greater public health tragedy that was averted because of the use of improved methods for establishing environmental pollution standards that were developed through U.S.-U.S.S.R. cooperation.

As this article is written, the program is assisting the Center for Disease Control (CDC), Public Health Service, in its evaluation of the spread of a new influenza epidemic. Use of the direct Telex link with the U.S.S.R. Ministry of Health is now an integral part of CDC's worldwide influenza surveillance system. Through the Telex and the professional relations developed in the program, CDC has had increased access to information about the epidemic in the U.S.S.R. and to samples of the newly emerging viral strain. CDC has been able to send specialists to the U.S.S.R.—previously impossible on short notification—to learn of the Soviet experience with this epidemic and to share information which will assist both countries in developing appropriate public health programs.

## Discussion

Although informal contacts between U.S. and Soviet health professionals have existed since 1917 and "official exchanges" have been organized since 1958, the cooperative program initiated in 1972 represents a noteworthy turning point in bilateral scientific relations. It is widely understood that domestic political and foreign policy objectives were at the foundation of this new initiative. Certainly, a political will was necessary for advancing U.S.-Soviet relations in this sphere. At every stage of development of this program, however, there has remained a strong commitment to its scientific integrity and a growing appreciation for the relationship between scientific and political/foreign policy objectives.

In some measure, the U.S.-U.S.S.R. Program for Health Cooperation has served as an experimental model for future international programs of the Public Health Service. Although it is not unique in its fundamental design, it is the largest and most thoroughly evaluated, centrally administered cooperative international health program. Broad areas of interests, major administrative considerations, and a yearly evaluation are overseen by the binational Joint Committee. The scientific aspects of the program remain, however, the prerogative of working level scientists and institutions. Unique in the pro-

gram has been the emphasis on a mutuality of benefits and equity in sharing its costs. Unlike many international health programs, no funds and very little technical hardware change hands. Each side basically underwrites the costs of its participation in cooperative projects with full and timely sharing of scientific data and results.

In this time of increased emphasis on technical cooperation between nations, traditionally defined as developed and underdeveloped or as donors and recipients, the U.S.-U.S.S.R. Program for Health Cooperation has provided many lessons. U.S. scientists and coordinators have had to learn to accommodate great disparities in political, cultural, and economic institutions as well as the technical and scientific capabilities of both countries as they sought to define specific activities where both sides could cooperate for mutual benefit. The problems of developing more collaborative international health efforts in less developed countries can only be seen as similar in most regards.

Throughout the development of this program has also come a slow but growing understanding of the ways scientific cooperation can contribute to other broad political and foreign policy objectives of the United States. As a result of numerous reviews and evaluations by a variety of U.S. agencies, it is now widely recognized that political and foreign policy objectives can be met only if such cooperative programs are scientifically sound, fiscally responsible, and beneficial to both sides. This recognition has placed a greater burden on the members of the scientific community as they have grown to appreciate their responsibility to help sort through the many vagaries of international relations in the development of their specific projects, and it is to the credit of these scientists that the program has achieved its fair measure of success.

In recognition of the contributions that this program has made to the broad interests of the United States and the Soviet Union, both Governments renewed the Agreement for Cooperation in Medical Science and Public Health and the Agreement for Cooperation in Artificial Heart Research and Development for an additional 5-year period in the spring of 1977. On the U.S. side, this renewal was recommended by all scientific coordinators. It is evident, however, that the scientists of both countries have greeted this renewal with a deepened commitment to strengthen and expand the cooperative projects for the health benefits to their domestic populations as well as for the contribution that the program will make ultimately for the health of all mankind.