MEMORANDUM

To: Recipients of Dr. Brody's Reports
From: Alexis Shelokov, M.D.
Subject: The Final Report from Bethesda

On my request, Dr. Brody took another look at his six months in the Soviet Union and recorded a candid evaluation of his experience.

I wish to call your attention to Dr. Brody's request, contained in the last paragraph, that care be given to the circulation of this report.

Dr. Brody's present address is:

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FINAL REPORT FROM DR. JACOB A. BRODY
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I am writing this report from Bethesda after a period of leave during which I was able to reflect on my experience. The material contained herein is not a summary. It is a discussion of particular points which were not brought out in my previous communications.

PART I. THE EXCHANGE PROGRAM

Success of the scientific exchange is a difficult and complex matter. I will begin this report by discussing personal and then the more important scientific considerations; considerations which have influenced my experience and which may be of use to those scheduled to go to the USSR or to others ready to receive the Soviet guests here.

Social Adjustments. Being happy during the first several months in a new environment is a very difficult matter. Most American scientists have had the experience of moving from one U.S. city to another. During this period, which runs up to at least 6 months, the slow building of a new life and circle of friends and habits can be quite distressing.

The American going to the USSR is in for loneliness. In addition to the basic problems of a new environment are added the factors specific for the USSR today. The Russian language is a very difficult one. English is spoken by very few scientists, although many read well and have studied the language at one time or another. Almost no one I met socially spoke English. It is possible to get by with limited Russian but this leaves the individual with a sense of separation which psychologically isolates him to a greater extent than the actual language barrier.

In Russia there is almost historic sense of suspicion and resentment of foreigners. Under the Czars few foreigners came to Russia for reasons other than exploitation and those who did generally receive preferential treatment by the state. During Stalin's time the fear and resentment of foreigners was heightened. No one was allowed to feel comfortable socially with strangers. This situation is improving under Khruschev, but foreigners still receive preferential treatment in matters of travel, theater and movie tickets, reservations in restaurants, etc., which is irksome to the Russians. Shipping of large quantities of meat and other supplies to foreigners by the Soviets when these items are so scarce in the USSR causes an undercurrent of dissension and dissatisfaction.
A sense of suspicion makes casual social contact somewhat more difficult than in other countries. In the long run this had little effect on me in any personal way other than to limit the number of people I met. Once I was able to meet someone either socially or professionally, friendship would progress along normal lines.

Self-consciousness on the part of the Russian scientists towards westerners had a far greater effect on me. A sense of cultural inferiority has long been prominent in Russian society. In certain eras, this was so strong that the Russian language was considered improper for use by cultured people, and French became the tongue of the educated. Self-consciousness often took the form of aggressive attacks or braggadocio, with loud quotations of the number of schools of higher education per tractor factory in the Ukraine or the ballet theaters per collective farm in Central Asia. On the other hand, this self-consciousness was frequently acknowledged openly in terms of a gap created by hard years of isolation which is now narrowing. The awareness of this cultural gap is expressed in a wonderfully ironic and typically Russian joke told me by a party member:

"A Russian diplomat in Prague asked his host the purpose of a large new building in the Czech capitol. The Czech replied that it was the Ministry of Naval Affairs. The Russian scoffed loudly and in a critical tone asked what the Czechs, without a coastline, needed with such a big building for 'Naval affairs'. The Czech in a harassed tone snapped back, 'Well, what do you Russians need with a Ministry of Cultural Affairs'."

Self-consciousness about this gap, combined with Soviet enthusiasm for their system, makes the Russian extremely sensitive to criticism. Russians frequently complained to me that our journalists and writers are unjust and overly critical of the USSR. While this/undoubtedly true in certain instances, the Russians, with a completely censored press etc., are not aware of what is written about them in the West. Their own propagandists reprint particularly stupid and critical western articles in order to unify and mold public opinion. It was necessary for me to be extremely careful in making critical observations and comparisons were particularly dangerous even with very good friends.

This hypersensitivity had a deep effect on my daily life and complicated certain basic types of social intercourse. In Moscow, especially in winter, there are very few places where you can sit down with a friend. Restaurants and cafes
are scarce and are very crowded, expensive and noisy. They close at about 11:00 p.m. and after that you can't even get a piece of bread. Since there are no bars the only reasonable place to sit down with friends was in the homes.

The fear that I might be critical or think poorly of living conditions made people reluctant to extend invitations. Homes are very crowded and good food is hard to find in the shops. It took a long time before people felt they knew me well enough to invite me home. Even then, I almost always felt that I was participating in a great event but there was a stiffness which is rarely present in real Russian gatherings. Fortunately, on several occasions I was brought to Russian homes with little or no warning. Since I had seen everything at first glance, self-consciousness was quickly lost. In two instances the feeling of warmth was so genuine that I was able to come and go into these homes as I chose and always had a place to rest or sleep and never could be seen by them without being fed.

The reluctance to invite me home was greater on the part of the people I met at the lab than others whom I met casually. This began to fade only after 4 months and even then only in isolated instances.

Two features in my case aided me in adjusting to Moscow life. First, I had travelled on lengthy temporary assignments before. While on occasion elsewhere, I have found the social climate easier, I have also spent time in a supposedly friendly country where I spoke the language better than I speak Russian and had a much less warm and rewarding experience. I frankly expected less in Moscow and found much more.

Secondly, I am single. Russian women, are in general, friendly, intelligent, easy to meet and not interested in politics. Getting a date did not involve going to a home, but rather meeting someplace and going to the theater or dinner. Frankly, the awful Russian restaurants are much more appealing with feminine company and even the streets are not quite so cold in winter and spring. And Russian women have the great advantage that they speak Russian.

Scientific Features. The problems in making the scientific aspects of the exchange a success are more crucial than the social aspects, but perhaps, easier to solve. With sufficient thought and planning this phase of the exchange could be brought to a level whereby scientific satisfaction is likely, even if the person's social adjustment is marginal.

A most important factor to recognize in the Soviet medical sciences is the relative status of clinical versus research people. The line is very clear and heavily drawn between research and clinical workers in terms of pay, prestige, membership in the Academy, position in medical politics and, above all, a
sense of personal security. For the most part, the clinician (defined by his training and organization, regardless of whether he is personally engaged in research) is the "low man" in the pecking order. Exceptions do exist, but they are rare. Because of his status the clinician has little latitude to act on his own initiative. If a guest visiting his clinic wishes to visit an institute across the street the request must go through the Ministry.

The Ministry of Health, as all bureaus with which I had contact, is full of echelons and echelons of desks that have to be waded through before a decision can be made. Government clerks are beautifully described by all the Russian writers of the 19th century and the immense bureaucracy of communism has done very little to make the system less complicated and more efficient. There are no incentive awards for people who take the responsibility. Thus, a simple request to visit an institute can take weeks.

The major research institutes are controlled by the important figures of Soviet medicine. They deal directly with each other and try to keep the Ministry informed. I had the good fortune of being associated with Prof. Chumakov. He decided that I should go to Prof. Smorodintsev's laboratory in Leningrad. A telephone call was placed and my tickets were purchased and I was off. When I arrived in Leningrad I was informed that I had no authorization to make the trip. The authorization was immediately improvised and all went well. Again, when I went to Kiev the formal papers were overlooked and were only secured from the Ministry in time to be handed to me on the plane.

I use these personal examples to illustrate that a properly placed person can have considerable freedom of movement in the USSR. To achieve this, it is extremely helpful to be associated with a major research institute. Even more important, it is helpful to be assigned to one of the members of the Academy or a prominent figure in medical politics.

While social adjustment and sense of freedom of motion are very important, they are not the essential core of a successful exchange. An unhappy person can produce a decent bit of work and go away contented.

The issue then is to select a project that is 1) not difficult to complete with only about 1/3 of the amount of time available as would be at home (this is not necessarily because the Russians work slower, but the delays due to language, understanding each other's objectives, and working with unfamiliar equipment in unfamiliar surroundings are considerable), 2) requires no equipment that you have doubts about finding or can't bring with you personally (relying on the mails is risky), 3) satisfying to your host who sincerely wants his guest to complete a project to the guest's satisfaction and to the benefit of the laboratory and 4) likely to result in publication in the Soviet literature with Soviet co-authors.
In analyzing my motives and thoughts before going to Russia, and those of other exchange people whom I met in Moscow, I find we had a great deal in common. I will speak of my own experience. My reasons for going included the adventure and fascination of being in the USSR, the curiosity to learn what was going on, and the desire to study problems related to tick-borne encephalitis. I further knew I wanted to work in Prof. Chumakov's lab in the Encephalitis Section. I had studied Russian and kept up with the Soviet literature and current reports as available and frankly felt as well equipped as the next person to make the trip.

I had clearly made a mistake. I arrived in the USSR and during the welcome party for me, I was asked what I would like to do in the lab. I explained that I wanted to learn about RSSE. At the party everyone thought that was perfectly commendable. But the next day about the conference table, in the midst of a lab doing nothing but work on RSSE, my statement of interests was a bit flat.

Fortunately, a month before, Prof. Chumakov was in Bethesda and discussed with Dr. Shelokov my experiments with filter paper discs. I had packed my discs in Panama and took them along with me to NIH and Moscow very much as an afterthought. Prof. Chumakov brought up the subject of the discs, and I had a box of them with me at the meeting. Once we got on the discs the meeting started to roll. Each Department Chief from Epidemiology and Vaccines to Serology and Virus Isolation Studies could easily map out a small project using my discs in their particular area. In an hour, a program and a schedule for the 6 months was drawn up which satisfied each Department Chief since my involvement was finite, simple; it satisfied me since I would get into each section.

What I had failed to realize in advance was the position of my hosts. They came to the meeting with the vague comprehension that I was being dropped on them to wander about their lab for a few days, waste a lot of time and then drift off to another bench. This, indeed, is what I thought I would be doing.

The need for planning in advance a specific small project is what I would like to emphasize. The general field of interest can be much better learned as a byproduct of this project than through tiresome formal discussions. Our exchange people who will be in the USSR for longer than 2 months should not travel about from institute to institute like a rotating intern. They should have one base, one project and work and travel as time and project indicate.
Discussions with Soviet scientists who have been in the U. S. for longer periods reveal a general feeling of disappointment about the scientific aspects of their exchange. I am really not convinced we can do much about this. The younger scientists we receive are almost surely travelling for the first time to another culture. They have left children and frequently a pregnant wife at home.

The propaganda to which these scientists have been subjected all their lives creates a framework of thinking in terms of comparisons. "We have produced 21.8% more tractors than the richest capitalist country on earth." To defend their own position here it is natural for them to fasten on to small defects in our society and be hypercritical. "You drink coffee all day"; "Your movies are childish"; "Your cities are boring"; "Your whiskey is terrible."

Further, as Soviets have started to broaden their interests in virology they have become increasingly aware of the immensity of our virological progress. Now that they are pushing beyond the problems of the polio vaccine, I no longer heard the comment (previously so popular) that American virologists had a renaissance because of a few dedicated men after the war, but this was short lived because we paid our scientists less than our clinicians. The depth and quality of our research literature is something the Soviets can not but look upon with awe. The directors of Soviet Institutes return from America with glowing stories of our research, facilities and techniques.

The younger man is then sent to the U. S. to visit a few institutes and learn specific areas or techniques at the feet of the "masters". It is no secret that our "masters", as in the USSR, spend more time at desks or in airplanes than at benches. The visitor is, therefore, shuffled around departments receiving masses of paper and hours of conversation. He is, of course, anxious to go to as many places as possible and to see a lot.

To have a successful exchange is no different here than there. No person on a long term exchange should be sent for 1 month here and 1 month there. He should be in one place on one well thought out project aimed toward publication. (I keep emphasizing publication, not because this, in itself, is important, but because it implies the depth and specificity of project, which I feel is essential.) Trips away from home base should be short and directed. If he has to work 14 hours a day, then returns to the USSR and complains, he will be laughed at. If he is rotated around and comes back and complains, he is right.
Some great faith in national organizations was brought home in a talk by Zil’ber. He expressed the need and desirability for establishing an international center for study of neuroinfections. While Western thinking would tolerate a central agency as a clearing house for information and taxonomy, the Soviets would prefer to see a control organization directing world research. The risk of narrowness, bureaucracy and dogmatism is accepted in order to have the assurance that there would be no wasteful repetition.

To digress briefly, the consideration of making an international center of neuroinfections is not accidental. This is an area in which the Soviet scientists consider themselves competent and in a position of world leadership. They base this opinion on their work with the RSSE viruses, chronic neurological disease viruses and polio. They are not deterred in this by world skepticism resulting from such things as their early failure to distinguish between RSSE and Jap B viruses; or the current confusion between "milk fever", bi-phasic meningoencephalitis and European RSSE; the multiple sclerosis virus which apparently was a rabies strain (and recently Zil’ber claimed isolation of the amyotrophic lateral sclerosis virus) and the fact that the Soviets used foreign polio vaccine strains. From their point of view, they have amassed the greatest body of information in the world on RSSE viruses, they have developed vaccines and concepts of ecology and control, they are diligently working toward an inevitable breakthrough in chronic neuroviruses and they have shown the world how to eradicate epidemic polio.
The Soviet system for research training has been dominated by the German tradition of academic "hierarchy" and the strong centralizing tendencies of communism. Respect and acceptance of authority is very strong and, in science, tends to inhibit the evolution of concepts. Lenin and Marx dominate political thinking. Pavlov dominates sociological and psychological thinking. The same force and earnestness is applied in ecological thinking employing the concepts of natural foci of infection developed by Pavlovskyi.

Pavlovskyi, a parasitologist, in 1938 evolved a new and exciting theory from the model of tick-borne encephalitis that a disease agent is permanent in a focus where it is being sustained by the vector and reservoir host and becomes manifest when the area is invaded by man or the focus expands to include human habitations. These concepts had existed before but had never been given so forceful a presentation and so direct an application, based on the reasoning that if a thing has a permanent focus you can eradicate it by discovering and eradicating the focus.

Pavlovskyi deserves more credit and recognition in the West for his expression of this concept. It was only in 1940-42 that Hammon and Reeves showed us that our encephalitis viruses were not horse diseases, but more properly bird-mosquito agents. It then took some years for us to expand these theories into broadly ecological concepts, but it must be emphasized that progress in our thinking followed the logical posing of new questions and acquisition of new techniques.

In the USSR, the immediate acceptance of Pavlovskyi as dogma has not allowed for a gradual evolution of his idea. It is only through the burst of information from the West that RSSE viruses are being found all over the world and strain variations play a great role, that the comfortable theory of a permanent and almost adynamic focus is requiring revision.

There are other limitations resulting from over-zealous support of Pavlovskyi. Since the concepts were developed first by non-medical and non-virological people, ecological thinking continues to be almost exclusively dominated by naturalists. It is unfortunate that Soviet arbovirologists do not have a greater stake in ecological work. Certain very questionable beliefs go into the literature unchallenged. In early Arab medical writing of Central Asia there are descriptions of hemorrhagic fever-like diseases. In the voluminous Russian medical literature, however, there is no mention of hemorrhagic fever or RSSE-like disease until the end of the 19th Century.
In the USSR today more than 1/2 of the cases of RSSE occur in European Russia and within a 100-mile radius of Moscow since 1948 there have been epidemics of hemorrhagic fever involving 500 and 1,000 people. In keeping with Pavlovskyi, the ecologists say that the viruses of HF and RSSE have always been in European Russia in permanent natural foci and the failure to describe these illnesses before was that physicians simply missed the diagnosis.

Hemorrhagic fever with nephrotic syndrome has been under study by Soviet ecologists for the past 20 years and is apparently an increasing problem in the USSR. Progress has been slow since the disease is apparently viral, but the agent is particularly elusive. All thinking is now centered on rodents and although experimentally the disease is not transmissible orally, a spread similar to leptospirosis through rodent excreta on food stuffs is postulated. While this theory is tenable, the conviction with which it is espoused, seems to exceed the factual evidence and may be limiting other possible approaches to this illness.

The studies of Veluisky encephalitis may be cited as another instance of difficulties caused by the invocation of the Pavlovskyi dogma before the facts. Under the extraordinary difficulties of the expeditions to Veluisk, a major effort was directed to isolating the virus and doing serology with rodents, before adequately studying the human population, because of the belief that this illness could only be one of natural focus and maintained by the rodent population. Rodents proved to be a blind alley and because of subsequent developments in Soviet virology the basic virology, serology, genetics, etc., of the human population have not been studied.

Certain difficulties in communication and exchange of ideas exist between Western and Soviet scientists. Some of this results from the long isolation of the Soviets under Stalin and part is perhaps just a matter of different manners.

In presenting our data, we are expected to deliver only facts and inductive generalizations with no philosophy. We are conditioned (with varying success) to accept criticism of our data in an objective way and at no time to allow emotion or personal anger or sensitivity to enter into the discussion. The Soviets, on the other hand, are quite free to hurry over data in order to develop their philosophical points. Their training has not stressed the objective, non-emotional approach and since presentation of work contains more personal philosophy and interpretation, the ego of the speaker is in a rather vulnerable position. Meetings and discussions, in general, tend to be very animated with tensions quickly mounting, sides being taken, and personal attacks frequently developing.
The Soviets are highly critical of our lack of familiarity with the Russian language and their scientific literature. The average Soviet scientist can read English and although he really doesn’t have time to keep current with western journals he is generally aware and has, at one time (while preparing his candidate thesis), reviewed the world literature in his field.

Soviet medical literature is an area which I personally found unsatisfactory. There are very few virologically orientated Soviet journals. Problems of Virology and, to a lesser extent, the Journal of Microbiology, Epidemiology and Immunobiology are the dominant and (except for rare individual articles) only journals in our field. These journals are completely translated by us into English, while they translate none of our medical publications. It is rare that young people with new ideas publish in these journals. Instead, information is exchanged through publication of annual laboratory summaries or abstracts of papers presented at meetings. These publications are generally unavailable in the West. They are, unfortunately, quite sufficient to establish and maintain the reputations of young workers as they rise up the academic-research ladder, so that there is limited pressure to communicate new data further.

The Soviet system of steps in scientific promotion further tends to restrict communications of information. After being graduated from the medical institute a person is a Vrach ("physician"). He then enters a lab either as an aspirant (for a degree) or an ordinary lab worker; in due course (3-5 years) he does a piece of work and defends an extensive thesis and becomes a Candidate of Medical Sciences. There follows a period of 5-20 years in which a person can prepare a doctorate thesis. There are few doctors in virology and this is quite a high distinction. Il'yenko just completed her work while Sarmanova and Voroshilova have not yet finished. Work for a doctorate thesis must be original, important and complete. During the last years of preparation the best Soviet workers are tied down to their thesis and project and are hoarding, rather than publishing, their data. When the information is finally written up it is only printed as a thesis and is not generally available to the West. Perhaps, a few years later a book will come out and by that time it is mainly of historic interest.

Most difficult to evaluate is the degree of responsibility that Soviet scientists feel toward the rest of the world to share all scientific information accurately and openly. A further question is to what extent non-scientific considerations determine the nature and timing of publication of scientific data.
The combination of Soviet self-consciousness, the suspicion and secrecy under Stalin and the intense desire to always look good in the eyes of their own people and the world, have tended through the years to discourage biostatistical methods, and the publication of certain types of information, such as population figures, incidence of diseases or occurrence of disasters. There are indications that this is improving. Lower echelon people still seem to be conscious of the danger of giving away too much information. Thus, local epidemiologists would not give me figures on the population and incidence of RSSE in Kemerov Oblast, while the Director of Preventive Medicine for the area readily supplied me with these figures. A huge polio type 2 epidemic in Viet Nam was poached by people at Vnukov, it was not until I spoke to Prof. Chumakov that I learned of the magnitude of this outbreak.

There are some important scientific things which are definitely considered inconvenient for publication. The Viet Nam polio epidemic is one instance. Another is the human volunteer work with hemorrhagic fever.

While political factors appear to play some role in what is published, I felt in general that incompleteness and errors in the Soviet literature were more directly related to overwork of the senior people and to apathy. There is no excuse for Bukhovinian hemorrhagic fever to be still classified as related to Omsk HF, especially now with the international implication because of the similarity of OHF and Kyrasnar forest disease. The errors in the original animal work in the hemorrhagic fever studies have not been published, nor is there a sound or comprehensive report of the incidence and or the virological and ecological thinking on these diseases. The limitations of the chick red cell lysis test for hemorrhagic fever with nephrotic syndrome, and the clear separation of human and rodent isolates in Veluiskyencephalomyelitis have not been published. Even the concepts of Pavlovsky have never been organized into a single introductory volume which could be translated for the Western readers.

When speaking to Soviet workers I was quite impressed by their depth of knowledge in their field. Once I knew enough to ask the questions, the information of their experience and thinking about the virological, epidemiological and ecological problems was very considerable. This information, however, was not being communicated to the rest of the world - or, in many instances, even to the Soviet co-workers.

When I tried to point this out, as tactfully as I could and to my closest friends, I invariably drew a defensive and angry response. There seemed to be no form of criticism that I could make palatable to the Russians.

I value my Soviet friends and wish to preserve my present close ties with them. For this reason I request that care be given to the distribution of this report.