MEMORANDUM TO: Mr. R. B. Fosdick.

The character of the work of the International Health Division has gradually been changing for some time. The original program was to apply existing knowledge and to build up to a high level local and state health departments, this being done as a rule through the mechanism of a hookworm campaign. Of late years it has been evident to the officers that the existing knowledge on preventable diseases was inadequate and that further studies were much needed if real and permanent progress was to be made. Under Darling, Smillie, and others, extensive field studies in hookworm disease were carried out, which resulted in the simplification of the hookworm program, making it more effective and much less expensive. Under Darling, Smillie, Barber, Boyd, Hackett, and others, extensive field studies in malaria have been carried out which have since the war put quite a new complexion on the malaria work in most parts of the world. In Europe we had our greatest difficulty, but the work of Hackett in Italy which is now in its seventh year has been remarkably successful. There is evidently a change of opinion in Europe as to what they call American methods of anti-malaria work. Although the progress in malaria has been slow, our pioneering is now bearing fruit in all the regions where we have worked. The early yellow fever work was based upon the knowledge gained in the United States, Cuba, and Panama and was directed by Gorgas, Guiteras, and Carter. The standard program for control was effective north of the equator in America, and on the west coast of South America. On the east coast of South America in Brazil it has so far failed, although at two periods, the eradication of the disease seemed to
be in sight only to recur following movements of troops in revolution.

In course of time we may understand the situation better and then know
the reason for the failure. At the present time we are inclined to be-
lieve that the reason is the enormous extent and the very large number of
negroes in the area. Studies of the mosquitoes of Brazil are under way
which show that with the exception of one or two they are quite different
from those found in the northern hemisphere. When we went to Africa it
was necessary to determine first whether yellow fever was present there,
and second, whether it was the same disease which had prevailed in the
Americas. We set up a large laboratory in Lagos to make these studies.
They showed that the disease was present, and that it was the same dis-
ease. They discovered that the Macacus rhesus, an Asiatic monkey, was a
susceptible animal and suitable for experimental studies of the disease.
The experimental studies have shown that the disease in Africa is preva-
 lent over a considerable area, that it is very mild for the natives and
is to a considerable extent a children's disease. Our conception of the
nature of the disease as a result of these studies has changed radically.

In the Americas as well as in Africa air travel is increasing by leaps and
bounds. The matter has given concern to the Office International d'Hygiene
Publique, the official world conference for international quarantine. The
President of the Office has addressed us, asking us to assist in a survey
of the endemic regions from Senegal to the Congo in Africa and through
certain regions in the Americas. With the approval of the President of
the Foundation the Division has offered to carry out this work for the Of-

fice and it is now under way.
We have also in progress studies relating to influenza, tuberculosis and undulant fever.

It is my belief that the future work of the Division should be directed more and more to scientific studies of public health problems in the field, with supplementary study at a home station which the Division greatly needs. The studies on respiratory disease including tuberculosis are promising, but are of such a nature that parts of the studies can be carried out more advantageously at a home station in the United States than in some extemporized or borrowed laboratory in the field.

Dr. Simon Flexner has very generously given us rooms at the Rockefeller Institute which we are now using for our studies in yellow fever. The arrangement provides for renewal from year to year and is obviously temporary. In addition to being temporary it is a question as to whether it will be possible for us to use the Institute rooms for any other studies than those relating to yellow fever. The temporary nature of the Institute arrangement is a decided influence upon our entire plans and personnel. Gradually the qualifications of our staff have been changing and until now almost half the members of the staff are capable of doing field research and as time goes on this percentage will increase. We need in fact for the kind of work desired a university type of person and to get these men we should be able to offer them the same facilities, tenure and working conditions which they would expect to receive from one of our universities. I therefore believe that the best plans which can be made for the future of our work are to search for new knowledge in the field of public health by means of field and home base studies. Further,
that much of the work which we have done in the past in building up health departments we can gradually relinquish since other foundations and the League of Nations now seem desirous of following in our path.

No organization exists at the present time with the program which I have briefly outlined. The Rockefeller Institute, for example, is dedicated to research in the fundamentals underlying health and disease. It is true that at any time in the past twenty-five years or more, the Institute could have developed a field service for the study of epidemiological problems had it desired to do so, but to the best of my knowledge it has not made such studies except in cooperation with the Foundation, and even these are very limited in extent. The ideals of the Institute would naturally tend to keep the staff interested in the fundamental research rather than in concrete studies of disease as it exists in any particular place. Because the Institute has not undertaken studies of the nature which I suggest for us, I believe I am justified in concluding that it is improbable that they will or that we would be duplicating one another's efforts.

Some of the universities from time to time send out expeditions for the study of disease. Strong of Harvard has visited the Amazon and Liberia, for example. The universities will no doubt continue to send out such expeditions. They are, however, for the most part of short duration and of very limited scope. The primary function of the universities being teaching, it is impossible for the members of the faculties to be absent from the university over considerable periods of time. This condition will always limit in time and scope university studies in the field.
The international scope of our work is peculiar to our organization and I know of no other organization which has succeeded in international activity to the same extent.

Hookworm, malaria, yellow fever, influenza and tuberculosis are all international rather than national problems and for that matter none of the so-called epidemic diseases know any national boundaries. I doubt whether any university in any country could establish satisfactory relationships in varying countries as has been the case with our organization.

For these reasons it seems to me our organization is unique in that its work will not duplicate nor conflict with the work of existing institutes or universities. It will supplement the work of governments. It cannot be properly done, however, unless we have our own base station with suitable laboratories in which we can train our men to carry out our part of the work. The question of tenure of service I have discussed with Mr. Mason and it is his plan to bring it up before the Trustees at some time in the future suggesting more or less the plan which is now in use at the Rockefeller Institute. Dr. Flexner and most of us, I think, are in agreement that the research institute unconnected with the university is not a thing which will feature in scientific development in the future as much as it has in the past. It is very likely that no other institute such as the Rockefeller Institute will ever be again established. Our work, however, is international, is mostly in the field, and in that respect differs from the work of any other organization now existing, and I do not think that the objection which might be raised to anything simulating a new research institute would apply to a home station for our staff.
I have not of course made any detailed plans, but to illustrate my meaning I might say that a three or four story building located along side the School of Hygiene at Baltimore of a plan and style in conformity with the Hopkins plans would be suitable in the event that the Foundation at some future time should decide to discontinue this sort of activity, the building could advantageously be used by the Hopkins for regular university purposes.

F. F. RUSSELL