MEMORANDUM FOR: Director,  

SUBJECT: Alcohol Antagonists

1. Attention is directed to your memorandum entitled "Alcohol Antagonists," dated 5 July 1952 and directed to Chief, Medical Staff. Comprehensive review of current medical literature has not revealed a single specific and reliable alcohol antagonist that fulfills your requirements.

2. Dexedrine sulfate, pervitin, and benzedrine are the most effective available drugs for this purpose in the order given. Specifically these drugs are not true alcohol antagonists but serve to mask the effects of alcohol in the human subject. Any of the above drugs in doses of 20 mg taken an hour before and every four hours while ingesting alcoholic beverages would partially counteract the discernible effects of ethyl alcohol.

3. The only effective and applicable adsorbent is that found in large quantities of protein either in the form of animal protein or milk, e.g., a heavy protein meal reduces the absorption of alcohol from the digestive tract by 50 per cent. Mineral oil or olive oil in two ounce doses will effectively delay the absorption of alcohol but will not prevent it.

4. The B-complex vitamins definitely accelerate the metabolism of alcohol by the liver; however, the unavailability of oral preparations of these drugs in the massive doses necessary and the unpredictable time necessary for their action would minimize their value. The insulin-glucose mixture is of doubtful value and would be ill-advised because the insulin must be given by injection.

5. In summary, the most effective available method of contatting the effects of alcohol would be the combination suggested below:

   a. 5-6 tablets of concentrated B-complex vitamins on the day that the alcohol ingestion is to take place.

   b. 20 mgm dextedrine about one hour before beginning the ingestion of alcoholic beverages and 20 mgm every four hours while partaking of such beverages.

   c. The ingestion of a heavy protein meal shortly before partaking of alcoholic beverages. (Alternatives - two glasses whole milk; one glass cream; large helping ice cream; two ounces olive oil; or two ounces mineral oil.)
6. At the present time there is little attention in medical research being directed toward counteracting the immediate effects of alcohol in order to maintain sobriety. This field may warrant further investigation by the appropriate division of the agency.

7. In this memorandum we have attempted to extract the salient factors pertinent to your problem. This office would be pleased to confer with your staff regarding more detailed information if so desired, and to assist you in the solution of any problems of a medical nature which might arise.
MEMORANDUM FOR: ____________________________

SUBJECT: Alcohol Antagonists

REFERENCE: Memo from __________, same subject, dated 12 September 1952.

1. Preliminary discussions have been held with __________, Chief, Chemical Division/OTS regarding the development of a research project on subject, Alcohol Antagonists and Accelerators.

2. Both OTS and the Medical Office feel that this problem is worthy of further investigation provided that there is an operational need for such substances. It should be noted that such a project will require considerable basic research and testing.

3. It is recommended that your office prepare a more detailed requirement for submission to Chief, Chemical Division/OTS so that preliminary studies may be instituted. The Medical Office will be happy to assist OTS in the medical evaluation of this project as needed.

Distribution:

Orig and 1 - Addressee
1 - RI
2 - File

[Signature]
Assistant Deputy for
Medical Office
MEMORANDUM FOR: Chief, Technical Support

SUBJECT: Alcohol Antagonists and Accelerators, Research and Development Project.

1. Reference is made to the memorandum dated 12 September 1952 from the [illegible] to the Medical Office, a copy of which was designated for OJ, and to the memorandum dated 27 September 1952 from the Medical Office to [illegible] of the Medical Office and Chief, Chemical Division, OJ, concerning the above matter. It is the belief of this staff that there is sufficient operational need for usable alcohol antagonists and accelerators to justify the institution of a research project to determine the feasibility of developing such substances. If the basic research indicates that development is feasible it is felt that it should be extended to develop adequate substances in this field.

2. This staff, due to lack of technical familiarity with the subject, is somewhat handicapped in preparing a detailed requirement for such a project.

3. A distinct operational need would be served by the development of substances having the following properties:

a. Alcohol Antagonists: a substance which can be kept readily available and which when taken internally would inhibit the full effects of alcohol consumption for reasonably predictable periods of time, depending upon dosage. Such a substance, to be usable, should of course have no ill effects and particularly should not affect in any way the reasoning, speech, locomotion or alertness of the person taking it.

b. Alcohol Accelerators: an odourless, tasteless, calorie-free substance which would be readily administered in food or drink and which would have the effect of accelerating the results of alcohol consumption, if possible resulting in a release of inhibitions and a more rapid loss of control on the part of the inebriate. Note: The feasibility of such a substance is not known to this staff but it is suggested that at least this be considered as a possibility in connection with the necessary research to be conducted on the various phases of Project "ATTACK".
ACTIVITY

4. If judged feasible and practical, it is requested that the Office, in consultation with the Critical Office and with I.F.S., undertake a research and development project to develop substances possessing the properties roughly outlined above. It is believed that this project might well be made a part of Project ATOMIC.