

COMMITTEE ON DRUG ADDICTION
November 27, 1937

Report of the Chairman

The chairman of the Committee on Drug Addiction begs leave to report on the work of the committee since the last annual meeting, November 28, 1936.

The minutes of the last meeting are appended. (Appendix A)

Since the last meeting of the committee reprints and other articles have been sent to the members, list of which is attached. (Appendix B)

Combined
Report on
Chemical,
Pharmacological,
and Clinical
Studies

The chairman made a report to the Division of Medical Sciences in April, 1937, which has not been sent out to the members of the committee but is sent to you at this time. (Appendix C). The chairman wishes to report that since then Dr. Small, Dr. Mosettig, Dr. Eddy, Dr. Himmelsbach and their associates have been preparing a combined report of the work of the three divisions of research from its inception that will be ready for presentation at the time of the annual meeting in 1937 and which will take the place of the Eleventh Progress Report. It was decided to prepare this report at a meeting held in the Spring at Charlottesville between the chairman, Dr. Treadway, and the chemists, pharmacologists, and clinicians. It is hoped that it will be published by the U. S. Public Health Service. It is divided into three parts - chemical, pharmacological, and clinical. The authors will discuss it verbally before the meeting on November 27th.

Encephalograph

At a cost of between five and seven thousand dollars an encephalograph was installed at the U. S. Narcotic Farm in Lexington and work has been under way for the past month. This instrument is probably the most sensitive one of this type that has yet been built and its installation gives a new method of approach to the study of the physiological action of drugs on the living brain. A conference was held by Dr. Treadway and the chairman at Lexington where encephalograms were exhibited. These showed a difference between the action of morphine and codein in one case. If this is confirmed in other cases a first approach to the study of brain activity in the narcotic field will have been established.

Work on other drugs is in progress. Since the installation of the encephalograph Dr. Himmelsbach is arranging to re-study a number of the drugs which he had studied before and has arranged a scheme for evaluating these drugs which he will bring before the committee and which, so far as tasted, work with great satisfaction.

It has been apparent for some time that we have no base line for estimating the pain control value of a drug in man. Even in the pharmacological laboratory the relative value of drugs varies with the method and with the animal used. For instance, Dr. Eddy uses a graded squeeze test on the tail of a cat while Professor Fournneau uses an electric stimulus in the rat and it is believed that it is for this reason that their results do not seem to agree. Under the direction of Dr. *Williams* Oberst at Lexington they are developing a new method of determining the pain control value in man which, if successful, will be the first time a proper base

line has been available. The new test is based upon the sensitivity of the ulnar and median nerve to various stimuli, tactile in the median nerve and contractility in the ulnar nerve. It is being assumed in this test that the sensitivity of a nerve will be an index of its ability to conduct pain sense. When the base line has been provided the various drugs in the series that are being used for study will be checked against this base line.

The other divisions at Lexington are also preparing schemata for grading the knowledge developed from the different studies on the relative value of drugs so that they may be graphically portrayed. The whole unit at Lexington developed and conceived by Dr. Treadway is unique in its provision for studying the whole question of drug addiction from many angles and is the greatest asset which the committee could have for its task.

The unit at Ann Arbor which has been developed by Dr. Edmunds and Dr. Eddy was visited by the chairman in September when he had a conference with Dr. Eddy, the Professor of Medicine and the Professor of Surgery and their assistants. It is gratifying to find the interest with which the work is being carried on but it is of necessity slow from the difficulty of finding cases which are comparable.

One of the interesting facts that has come out this year, through the study of Dr. Daland and Dr. Davenport of the Massachusetts Department of Public Health is that institutions use far more morphine and codein than they need to control pain and cough. Dr. Daland's study has been published by the U. S. Public Health Service and Dr. Davenport's study is in preparation.

methyl-dilaudid - morphine

Patents Following the policy established by the Patent Policy Committee of the National Research Council, adopted February 10th and sent to the members of the committee concerning the work of the Committee on Drug Addiction, the Research Corporation was requested to file applications for patent on "methyl-dilaudid" in Germany, Switzerland, France and England through their attorneys, POTTER, PIERCE & SCHEFFLER, who have been at great pains to accomplish what was desired. Dr. Small is preparing to file application for a U. S. Patent on the same substance through the Department of Justice. Two patents (No. 1980972 and No. 2058521) have been granted and a third has been allowed. Dr. Small personally presented the second patent to the Secretary of the Treasury.

Dr. Small is appointed by the League of Nations with the approval of the Department of State as the United States Representative on the Opium Assay Commission of the Health Section of the League of Nations, which was appointed for the purpose of recommending an international method for the assay of opium and coca leaf. Dr. Small will return before the annual meeting and will report his results. The permission of the committee for Dr. Small's appointment was obtained by mail vote and it is suggested that this be ratified.

Funds The committee should consider the state of the work and the use of the remaining funds. Beginning with January 1, 1937, we entered upon our final grant of \$150,000. I quote from the letter informing the Council of this grant:

"I have the honor to inform you that an appropriation of \$150,000, or as much thereof as may be necessary, was made to the Council for the Committee's work during the four-year period beginning January 1, 1937, with the understanding that the amount available in any year for the period shall be not more than \$50,000. It was further the understanding of the meeting that the appropriation made constitutes a final grant by the Foundation to the project."

As a matter of policy the committee should decide whether the work should be rounded out by the end of 1939 or, by reducing the rate of expenditure, it should be extended into 1940. At the rate of \$50,000 a year we will have used up this fund by December 31, 1939. The chairman's impression is that funds will not be available beyond the present grant, although with the development of clinical application leading, as it does into brain physiology, there might be just reason for further grant.

There is presented for your information and consideration the budget of the Committee which carries the work to June 30, 1938. This budget will be revised thereafter or continued at the same rate in accordance with the decision of the committee at the annual meeting. As in the past it is requested that the chairman be given power within the budget allotments to authorize changes in personnel and stipends with the approval of the chairman of the Division of Medical Sciences and of the National Research Council.

Last year the chairman was authorized to ship to Professor Fournau for pharmacological study a number of substances. Others are ready to be sent to him as soon as we hear from him.

The committee as now constituted was continued at the last meeting of the Division of Medical Sciences.

Respectfully submitted,

Wm. Charles White, Chairman