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by authority of: [REDACTED]

date: June 1977

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DRAFT

5 December 1956

MEMORANDUM FOR: THE RECORD

SUBJECT: Project MKULTRA, Subproject 22

1. The purpose of this project is to provide funds to carry out the isolation and characterization of the intoxicating substances present in certain varieties of Rivea corymbosa.

2. [REDACTED] has conducted studies on this material which have lead to the development of methods which can now be applied to large samples of seed, thereby allowing the production of sufficient quantities of the active materials for definitive biological testing and characterization. [REDACTED] has submitted the attached proposal to carry out this work as directed by TSS/[REDACTED]

3. The Geschickter Fund for Medical Research, Inc., will serve as cutout for transfer of funds to the investigator. The estimated cost of the work is \$5,950.00 for one year. To this must be added a four percent service charge for the Geschickter Fund, amounting to \$238.00. Therefore, the total cost of this investigation for one year will not exceed \$6,188.00.

4. In accordance with the Memorandum of Understanding with [REDACTED] the University shall retain title to any permanent equipment in lieu of higher overhead rates.

5. The Geschickter Fund has made arrangements for the return of unexpended monies received under a grant from the Fund and also has requested that the University submit to it a summary accounting for all monies received therefrom.

6. It has been mutually agreed that documentation and accounting for travel expenses under the grant which are reimbursable by the University shall conform with the accepted practices of that institution.

(b)(3)

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7. [REDACTED] holds a covert clearance under Project MKULTRA and has agreed to comply with the terms of the Memorandum of Agreement.

[REDACTED]

Chief, Branch II
TSS/[REDACTED] Division

Attachment:
Proposal

Approved:

APPROVED FOR OBLIGATION
OF FUNDS:

[REDACTED]

gmv Sidney Gottlieb
Chief
TSS/[REDACTED] Division

[REDACTED]

Research Director

Date: 7 DEC 1956

Distribution:
Original only

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Request for renewal of support for the project:

Investigation of the seed of Rivea Corymbosa(ololiuqui).

Summary of work, November 1, 1955 - September 25, 1956:

Physical examination of the seed used in this work reveals that two "types" have been under investigation. Taxonomically all the seed have been called Rivea Corymbosa although one variety (the seed are the larger of the two varieties) originated in Mexico and one variety originated in Cuba. The literature on the subject of ololiuqui, as far as I can ascertain indicates that its use as a psychic drug has been restricted to Mexico. This data alone would indicate the probability that the Cuban variety lacks some physiologically active component which the Mexican variety contains. Experimental work in this laboratory has been largely restricted to the Cuban variety (small seed since only a very small amount of the Mexican variety has been available. The chemical work, although not designed to compare the composition of the two varieties, has indicated some difference in the two. Also physiological tests on humans are indicative of a difference in the two varieties. This work is much too inconclusive to be much more than speculation at this time.

In addition to the isolation of glucose and hydroquinone as constituents of ololiuqui as reported in the last progress report, two crystalline fractions have been isolated which seem neither to be alkaloid or glycoside. Due to the small quantity of seed available the amount of these crystalline fractions is extremely small and little more than qualitative tests have been made on them. Experimental techniques, especially in extraction and separation, have been perfected which will be used to isolate pure components of the drug which, just today, has become available in sufficient quantity to make the investigation profitable.

Plans for future investigation:

Now that 50 pounds of the Cuban variety and 10 pounds of the Mexican variety are available, the following lines of investigation will be actively pursued.

1. Determine conclusively if there is a chemical difference in the two varieties of seed.
2. Obtain as many "pure" components from each variety, using previously perfected techniques, as is possible.
3. Submit for physiological testing each "pure" component.
4. Subject each "pure" component to chemical examination to determine the type of compound, whether it is a known compound and its chemical composition if it is a new compound.

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Proposed budget, November 1, 1956 - November 1, 1957.

Equipment (including larger scale extraction and separation equipment) and special chemicals	\$1000.00
Analyses and tests	350.00
Travel expenses	500.00
Salaries (one graduate assistant, laboratory help and director's stipend)	4000.00
Miscellaneous	<u>100.00</u>
Total	\$5950.00

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