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Dear Dr. Martin,

We appreciate your partnership to develop a better understanding of the role of endogenous DMT in brain function. More specifically, our collaborative aim is to define a potential relationship between endogenous DMT and sexual climax.

The experimental design of the collaborative study is as follows:

Study# I: Determine the EEG biomarker for sexual climax in normal rats.

Study#2: Determine the EEG biomarker for sexual climax in DMT deficient rats.

Study#3: Determine the levels of neurochemicals (including DMT) in the brain during sexual climax in both normal and DMT-deficient rat.

RESEARCH PLAN

Current state of the research and progress at U-M: We have found that rat brain makes and secretes DMT endogenously (Dean et al., 2019), and created rats deficient in INMT, the key enzyme in DMT production, in order to study the function of DMT in the brain. Our working hypothesis is that endogenous DMT contributes to altered states of consciousness, including dreams during sleep and near-death mentation.

An interesting hypothesis proposed by ReThinkSex.org is that **DMT contributes to sexual climax**, which, can be considered an altered state of consciousness. These studies are designed to test this hypothesis.

Goal of the proposed research:

Step 1: Determine EEG biomarkers of sexual climax in wildtype rats and to determine if any of the identified biomarkers is altered in DMT-deficient rats.

Question 1: Is there a unique EEG marker present in both male rats during sexual climax (ejaculation)? Is it present in female rats as well?

Question 2: Does the presence of the EEG marker (identified in the Question 1 above) depend on the endogenous DMT in both male and female rats?

Step 2: Measure DMT release from the brain before, during, and after sexual climax in wildtype rats.

Question 3. Does DMT release increase in male rats during sexual climax?

Question 4. Does DMT release increase in female rats during sexual climax?

A series of studies (Study#1-#3) is planned in the previous page to address these questions.

The proposed studies are technically feasible, and if successful as planned, are likely improve our understanding of the role of DMT in sexual activities. These studies could also be replicated in human subjects in future studies to enhance our understanding of the role of DMT in human sexuality. I look forward to working with Dr. Martin to achieve this goal.

Sincerely,

Jimo Borjigin, PhD