Kent Denver Innovative Scholars Program May 7th, 2021

Advanced Study of Hallucinogens Valerie S.

OVERVIEW

I wanted to do research on a drug and how it could be used as treatment in any kind of specific mental health disorder. I decided on DMT, a potent drug that gives the user powerful other-wordly hallucinations, feelings, and an altered sense of time. I found this topic very interesting and decided to dig deeper into my research..

RESEARCH

As said above. I decided to research DMT. As I continued my research into this potent drug, I found hypotheses from various scientists that suggested it could be used in the treatment of PTSD and Schizophrenia.

However, I found more information on PTSD, including its effect on the SIGMAR1. The reaction with the SIGMAR1 gene produces an anti-amnesic effect allowing memories to essentially resurface in the brain. This acts as a sort of therapy for patients suffering from PTSD.

There was very limited treatment options related to Schizophrenia. I am still in the researching stage of this process

GOALS OF THIS STUDY

By the end of my independent study, I want to have created a short PSA or film detailing DMT and its benefits as well as a published white paper documenting my research.

> I am still in the throws of completing my white paper. It is about halfway finished and soon enough, it will be ready for publication

FIGURE 1: The Structure of DMT

I have completed my short PSA film. It is linked here for viewing purposes.

I learned a great amount regarding DMT and can't wait to continue on my learning journey.

I love the journeys one gets to go on regardless of how narrow or wide you decide your topic should be.

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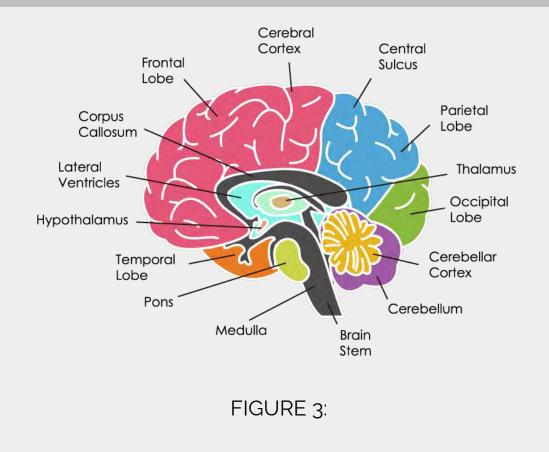


FIGURE 2: DMT PSA: A Short Film

WHY DID I EMBARK ON THIS JOURNEY

I embarked on this journey because I have always loved learning anything and everything about the brain

I can't wait to continue on this journey as I finish up my white paper with Ms. Landry. This has been a great experience and I recommend an independent study to anyone interested in research at a high school or even college level.



WHAT DID I LEARN

FIGURE 4: "A DMT trip feels like dying"

Overall, I learned a lot about the mechanisms behind addiction as well as treatments for various disorders relating to PTSD and Schizophrenia

I also learned about certain gene's roles in the body including the SIGMAR1 gene in PTSD which I explained a little earlier in my research portion.

I loved learning also about DMT itself and the effects it has on both neurodivergent and neurotypical people.

Overall, I can't wait to continue my research through my white paper and learn more about something people know so little about!