

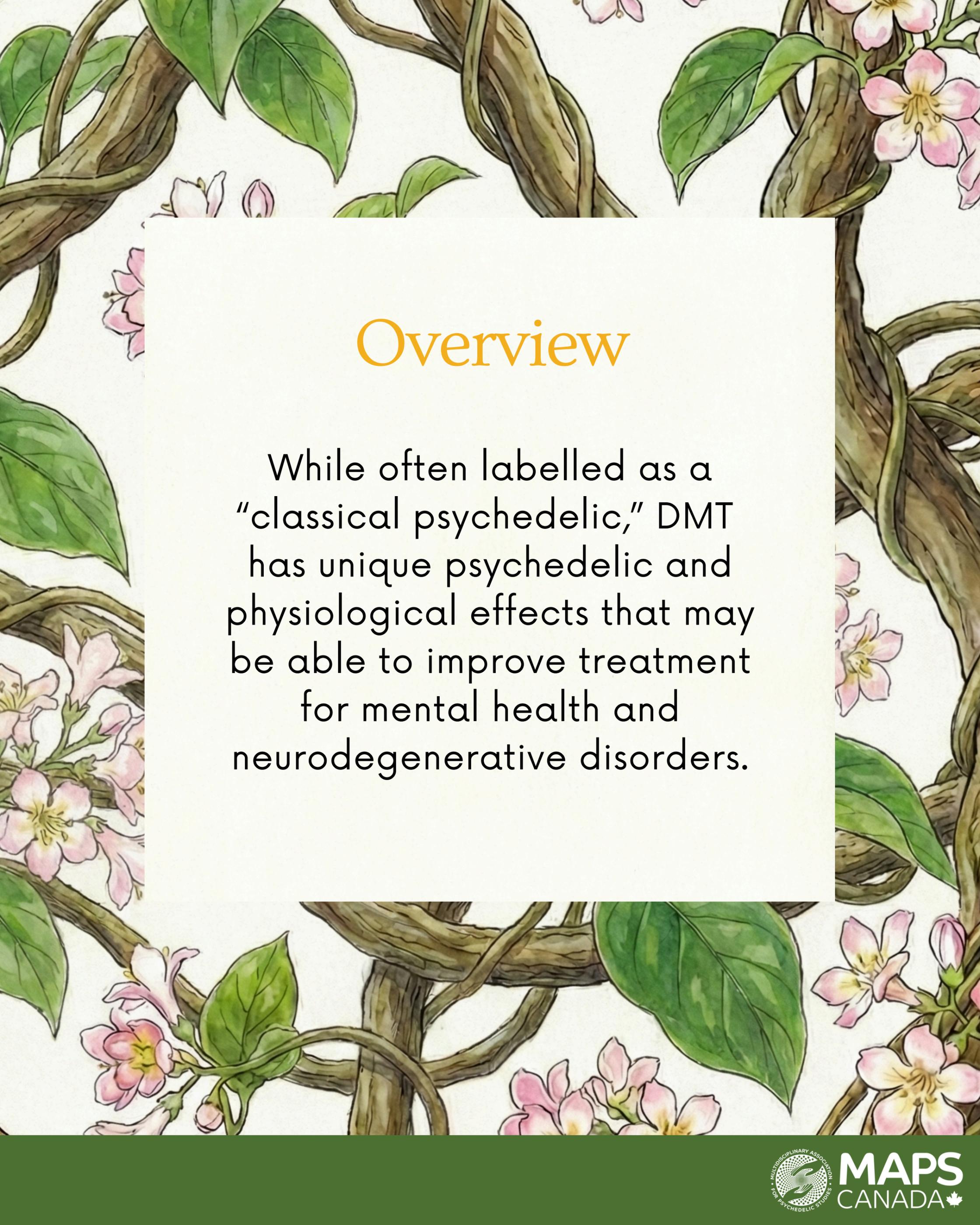
The background of the page is a detailed botanical illustration of a vanilla plant. It features thick, woody, brown stems that are intricately braided and entwined with thin, green, curly tendrils. The leaves are large, heart-shaped, and a vibrant green color. Interspersed among the leaves and stems are clusters of small, five-petaled pink flowers with yellow centers. The overall style is that of a classic botanical illustration, with fine lines and soft shading.

# Unique Features of DMT Beyond Classical Psychedelics

PSYCHEDELIC RESEARCH SNAPSHOT



**MAPS**  
CANADA 

The background of the slide is a watercolor illustration of a vine with green leaves and pink flowers. The vine is brown and textured, with several large green leaves and clusters of small pink flowers with yellow centers. The illustration is set against a light cream background.

# Overview

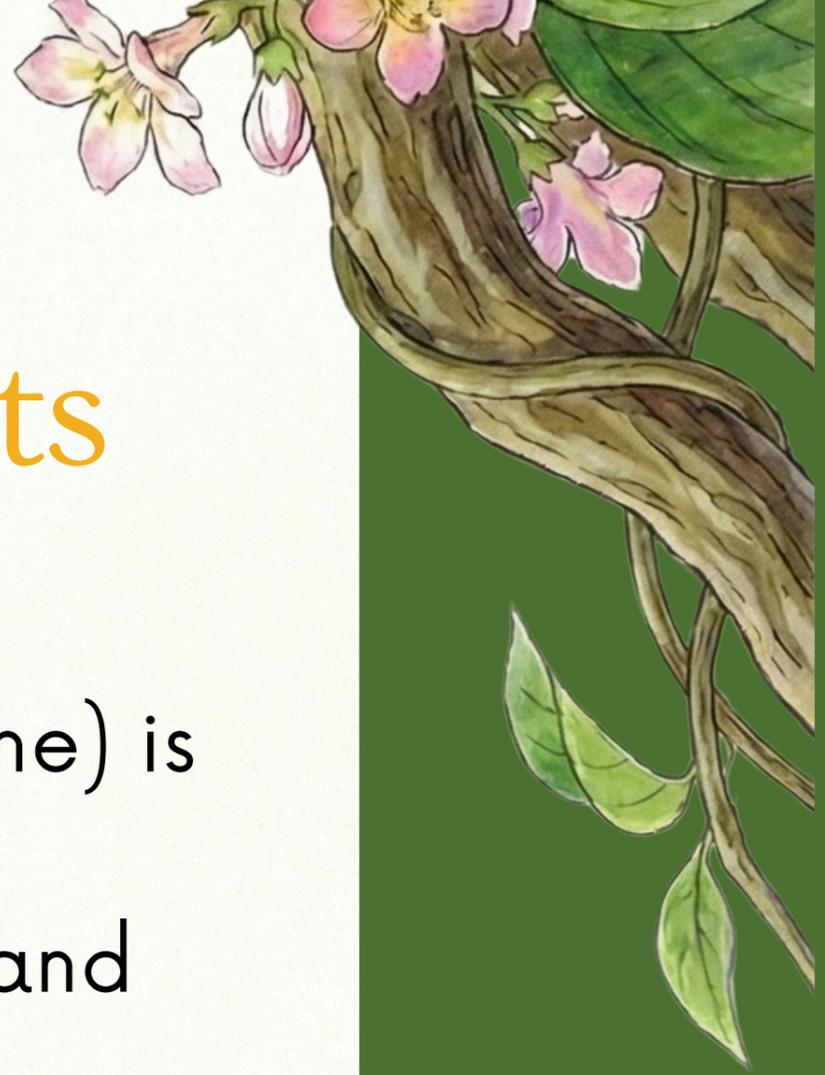
While often labelled as a “classical psychedelic,” DMT has unique psychedelic and physiological effects that may be able to improve treatment for mental health and neurodegenerative disorders.

# Traditional Roots

DMT (N,N-dimethyltryptamine) is the main psychoactive component in ayahuasca and the "wine of jurema."

These psychedelics have been used in spiritual and healing rituals for centuries across South America.

Traditional users describe mystical "miração" (seeings) and otherworldly communication.



# State of DMT Research

- DMT was first synthesized in 1931 by Canadian chemist Richard Manske.
- In the past, legal restrictions largely limited DMT research to animal models. However, recently, human clinical trials have started investigating DMT's treatment potential.
- Currently, DMT is studied for the treatment of mental health, substance use, and neurodegenerative disorders.





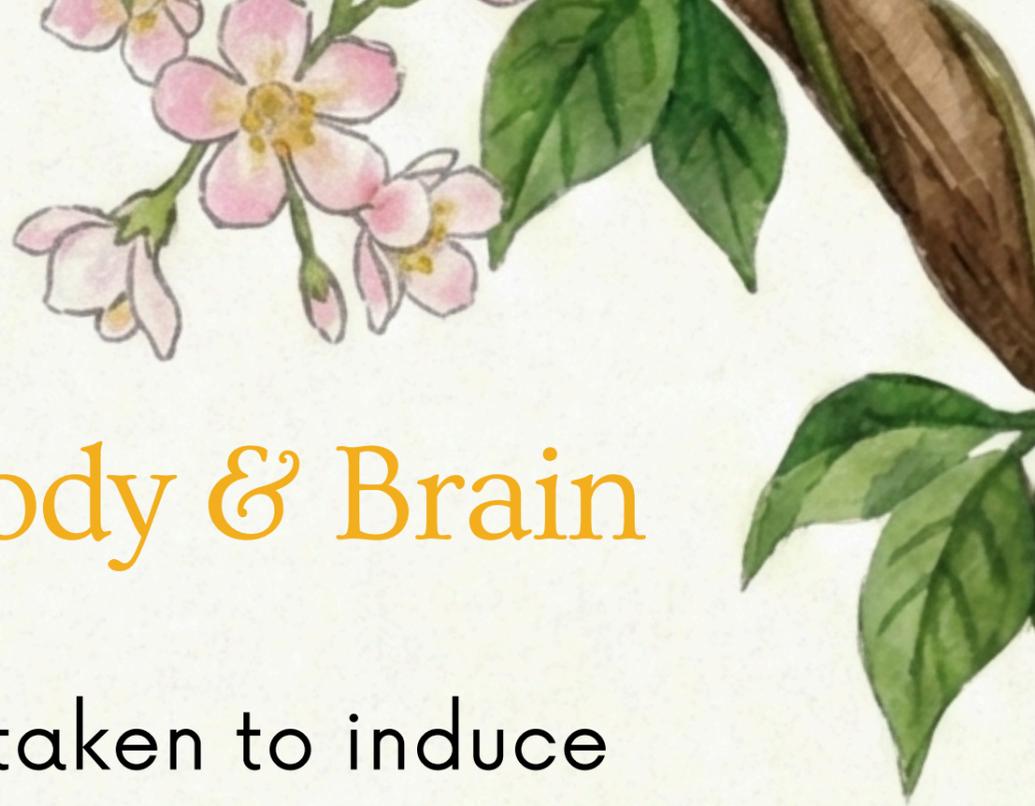
## DMT's Unique Psychedelic Experience

DMT is often reported as providing a more profound and complete experience than other psychedelics.

### **Most common experiences include:**

- Strong visual effects
- Breakthrough experiences
- Deep dream-like states
- Feelings of altered reality
- Ego dissolution

DMT's effects are very short, only lasting ~30 minutes when inhaled or taken intravenously.



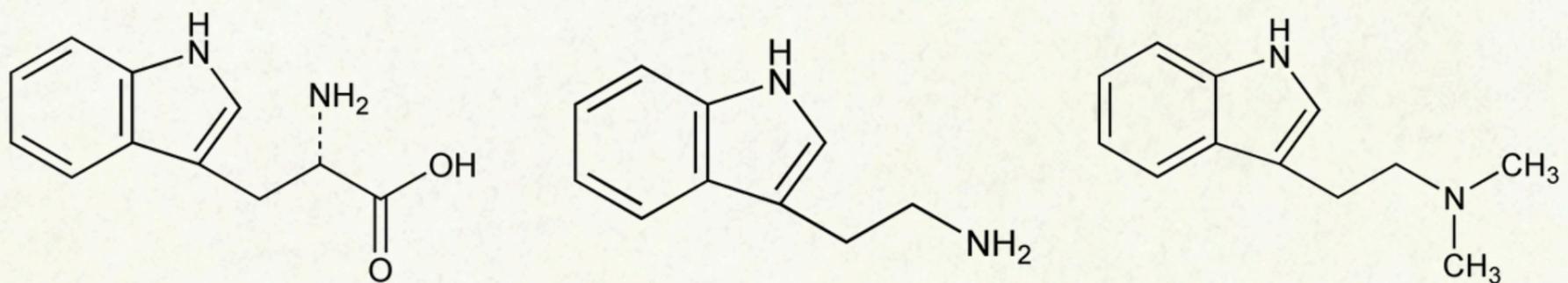
# DMT in the Body & Brain

While DMT can be taken to induce psychedelic experiences, it is also naturally produced in the human body.

**Research shows DMT may play a role in:**

- Promoting neuroplasticity
- Developing new brain cells
- Regulating inflammation

DMT is usually well tolerated in studies. However, elevated breathing, anxiety, and emotional distress are known side effects.



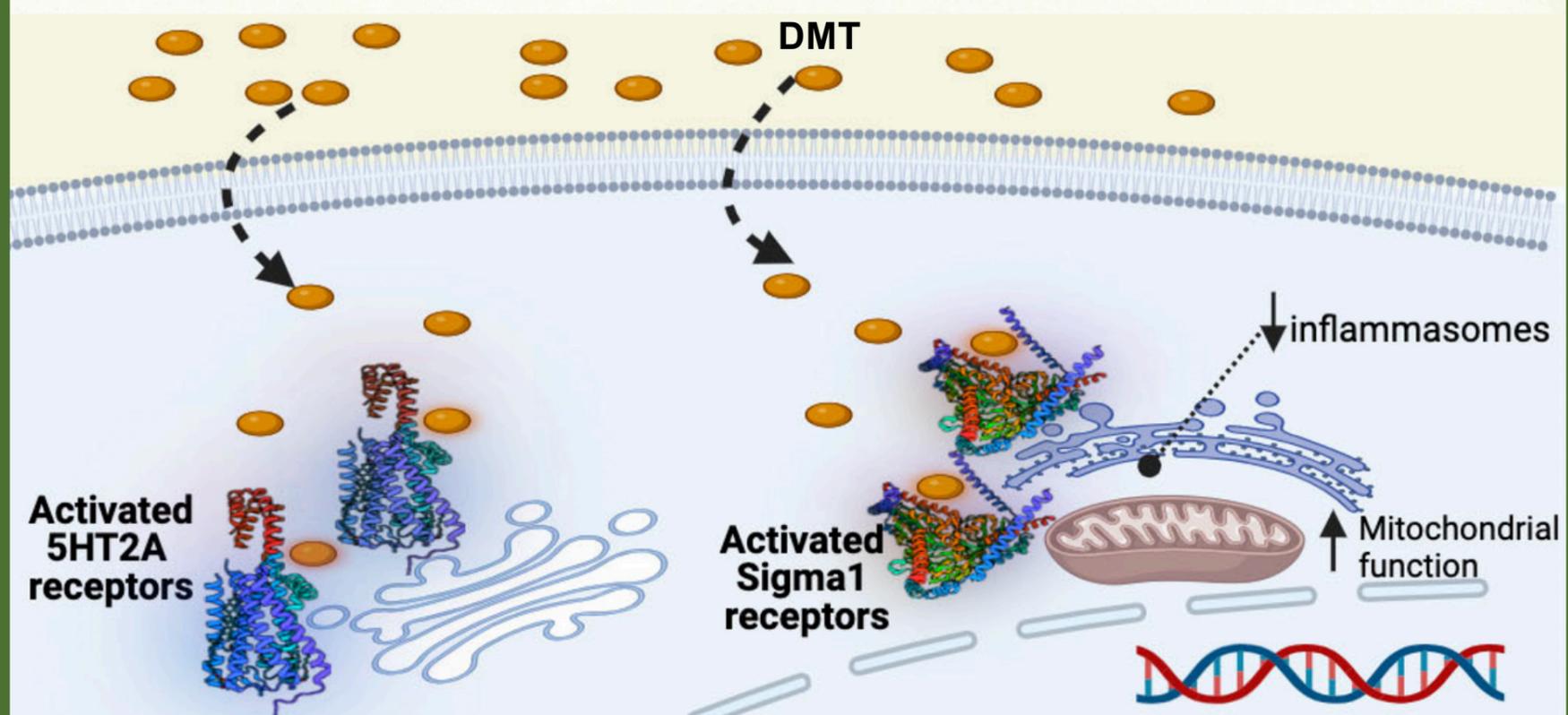
**Tryptophan** → **Tryptamine** → **DMT**

# DMT in Brain Cells

DMT is a small **lipophilic** molecule, meaning it can cross cell membranes and interact with proteins inside neurons.

This feature may partially explain DMT's fast-acting effects and why it does not easily build tolerance with repeated use.

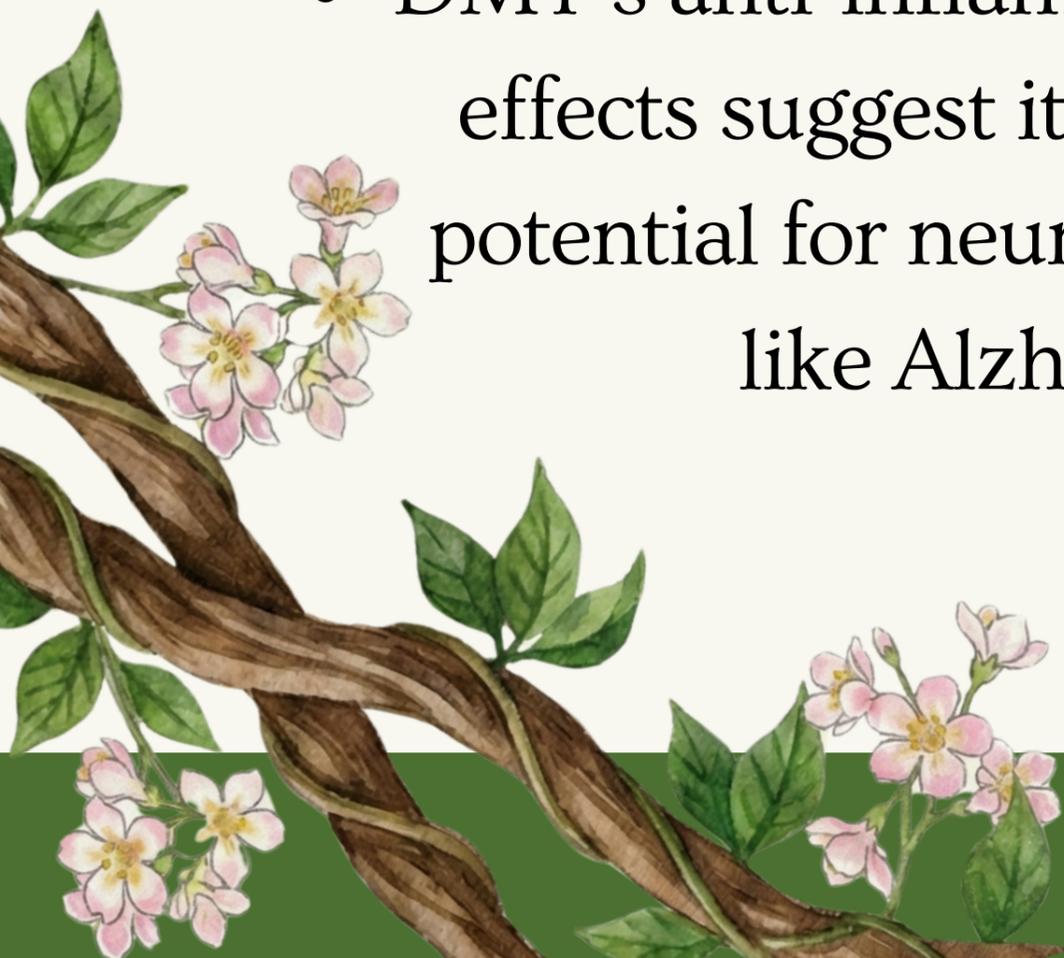
Unlike some classical psychedelics, DMT strongly binds to sigma-1 receptors, which help **regulate inflammation and cell stress**.





# Clinical Implications

- DMT's intense but short experience requires shorter periods of clinical supervision. This lowers costs and clinical burden, making it an accessible alternative to other psychedelic treatments.
- The lack of ability to form a tolerance to DMT also makes it possible to repeat treatment without losing effectiveness.
- DMT's anti-inflammatory and neuroplastic effects suggest it has a strong treatment potential for neurodegenerative disorders like Alzheimer's disease.



# Summary & Future Directions

DMT stands out due to its natural presence in the body, short duration of effects, lack of tolerance development, and unique interactions within brain cells.

Current studies are often challenged by small sample sizes, complex study designs, and uncertainty in the right dose amounts and frequency.

Future research should prioritize larger human clinical trials to establish long-term safety and dosing protocols.





## Reference

Why N,N-dimethyltryptamine matters:  
unique features and therapeutic  
potential beyond classical  
psychedelics.

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