



# NEUROBIOLOGY OF AYAHUASCA USED IN TRADITIONAL ENVIRONMENT



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THROUGHOUT THE HISTORY OF HUMAN-KIND, PSYCHEDELIC SUBSTANCES HAVE BEEN RITUALLY USED FOR PURPOSES OF MEDICINE, SPIRITUAL CONNECTION, OR THE CELEBRATION OF LIFE. IN A RITUAL CONTEXT, IT HELPED TO ACCUMULATE IRREPLACEABLE KNOWLEDGE FROM THE RITUAL CONTEXT, WHICH IS NOT JUST A LIVING LEGACY OF ANCIENT CIVILIZATIONS, BUT AN ATTRACTIVE CHALLENGE FOR MODERN SCIENCE AND AN INSPIRATION FOR OUR CULTURE.



Ayahuasca is a psychoactive drink made from an Amazonian plant, which has been for hundreds, even thousands of years ritually used by traditional tribes in many South American countries. The indigenous people of the Amazon jungle perceive ayahuasca as a symbol of nature's power. They see it as an immeasurable intelligence which helps them to see the true reality through changed states of consciousness. They call the plants which make ayahuasca as medicine. The drink itself is viewed as a treatment and ayahuasca is seen by the indigenous people as a teacher.

The main ingredients of the plant extract are made of a liana (*Banisteriopsis caapi*) and the leaves of a bush (*Psychotria viridis*), which contain a strong psychoactive substance called dimethyltryptamine (DMT).

Throughout the last 60 years, ayahuasca has been the subject of a wide spectrum of scientific studies. Primarily, its potential use in psychotherapy has been studied, but researchers have been curious about its effect on creativity, and the overall improvement of a person's life. Many participants of the experiments felt a fascinating resurgence of respect for nature after taking ayahuasca, as well as a need for the improvement of their bonds with other people on an interpersonal level. In this day and age, we are witnessing a renewal of interest in traditional sacred plants and their psychotherapeutic potential which is connected to the ongoing project **"Neurobiology of Ayahuasca Used in a Traditional Environment"**.

Within the project, an international team of top-tier experts uses the newest technology to study traditional forms of administration of the drink in the Huni Kuin and Ashaninka tribes in Amazonia.

Researchers are interested in ayahuasca's effect on the psychological state of participants, what influence this changed state has on the consciousness of their mutual connection and how this context of administration relates to the brain activity.



## WHO IS BEHIND THE PROJECT:

Dr. Tomáš Páleníček, Ph.D. and a team of researchers from the National Institute of Mental Health,

Dr. Eduardo Ekman Schenberg, Ph.D. (Instituto Plantando Consciencia, Brazil)

Dr Tom Froese (National Autonomous University of Mexico – UNAM),

Dr Frank Zanow (CEO Ant Neuro),

Dr Tania Re and Adine Gavazzi (Cattedra UNESCO at Università Degli Studi di Genova).

The project is also supported by the Neuron Foundation.

## # CURRENT SITUATION (THE END OF 2022)

In 2019, there was a testing expedition with portable EEG equipment. This equipment was provided in collaboration with ANT Neuro. Money was raised to support the project.

## # PROSPECTS

The project's execution is scheduled for the year 2023, in collaboration with the Huni Kui tribe. There is ongoing communication with the researchers in Brazil as well as negotiations with the embassy happening. Peru and Ecuador are also considered for the continuation of the experiment.

## # OUTPUT

With the help of portable EEG equipment, we will collect data illustrating how the traditional environment affects the ayahuasca ritual. The researchers will be able to prove or disprove the importance of the traditional environment and ritual setting. The portable EEG headgear will allow researchers to gain knowledge about connection of individual participants, and the effects which external aspects (the ritual, singing, shaman dancing) have on participants' neurobiology. By comparing this data to the effects of ayahuasca's administration in the medical environment, they will be able to conclude the role and effectiveness of the traditional context.

The results are to be expected in the years 2024 and 2025. At the same time, in collaboration with film director David Čálek's team, the research will be documented. The film "Doctor on Trip" gained support from the Czech Film Fund.



## YOUR FINANCIAL SUPPORT WILL HELP REACH THE FOLLOWING GOALS OF THE PROJECT:

- Collecting data with portable EEG equipment, which will outline the effect of the traditional environment and the ritual use of the psychoactive drink ayahuasca on the neurobiology of participants' brains.
- Proving or disproving the importance of traditional setting and effectiveness of the ritual itself.
- Gaining data regarding the connection between individual participants of the research and the influence of external aspects on the brain (using the portable EEG headgear)
- Reviewing the role and effectiveness of the traditional context.
- Expanding on the public's awareness and scientific discovery of the potentials of psychedelics used ritually.

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