

# CASE STUDY ON ACCESS & BENEFIT-SHARING FOR NON-COMMERCIAL ACADEMIC RESEARCH IN LATIN AMERICA AND THE CARIBBEAN

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BRAZIL

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## Ethnobotanic study of antimalarial plants at Rio Negro's and Purus Rivers banks

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**Region:** Amazonas and Acre, Brazil

**Field of research:** Ethnobotanics

**Research goal:**

The research aimed to identify plant species used in malaria treatment, to categorize them by use indication, to profile the providers of Traditional Knowledge (age, social function in the community, as other relevant information), to study perception of providers regarding nutritional restriction recommended to malaria inflicted patients, to test the extracts in standardized Plasmodium strains, to characterize the active principles, and to study molecular mechanism of pharmacological receptors of promising compounds.

**Commercial purpose:** The study is for scientific purposes, with no immediate commercial use.

**Resources accessed:**

Plants used in malaria treatment and their associated Traditional Knowledge such as the traditional use of these plants: quantities, frequency of intake, etc.

**Provider of resources:**

Indian People, i.e. indigenous people and traditional or local communities, such as riparian communities and non-timber forest product collectors.

**User of resources:**

Universidade Estadual Paulista “Júlio de Mesquita Filho” (UNESP; University of the State of São Paulo).

**Governing body regulating access:**

Genetic Heritage Management Council (CGEN)

Another competent agency involved is the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA) that is an inspection competent authority (IBAMA is an enforcement agency that is also involved in this process because if there is any illegality it can fine the user).

**Utilisation of resources during the project:**

The extracts were tested in standardized Plasmodium strains, to characterize the active principles, and to study molecular mechanism of pharmacological receptors of promising compounds

**Utilisation of resources after project completion:** Resources are deposited in a Trusted Collection.

**Utilisation of generated information after project completion:**

Synthesis of promising compounds for malaria treatment.

**Negotiation procedures:**

The user submits a solicitation of authorization to CGEN's secretariat. The process is instructed by the user with documents meeting the requirements to obtain the authorization, such as the research project, evidence of technical qualification, evidence of adequate infrastructures facilities and term of Prior Informed Consent (PIC).

Once fully instructed, the Council analyses the process and decides for its approval, disapproval, approval with conditions or demands further information.

No others than the user (university) and provider (Indian people) were involved in the negotiation, although other institutions are involved in the research. The user is a public institution and the project is financed with public funds. However for any research involving Indians an authorization from FUNAI, the Brazilian governmental protection agency for Indian interests, is also needed.

**Negotiation duration from the time of permit application:**

Two years and 8 months. The process took so long because the user had to be instructed regarding our national legislation on ABS and he took a long time to send all the needed documents for obtaining the authorization, which included the signature of all the Indian authorities from the different tribes spread on a large geographical area.

**Information on Prior Informed Consent (PIC) &/or Mutually Agreed Terms (MAT) when available:**

Prior Informed Consent was obtained and signed by Communities and Indian People authorities and all their interviewed members.

**Factors of success of the application procedure:** Unknown because research still in progress.

**Non-monetary & monetary benefits shared:**

No monetary benefits will be shared since the study is for scientific purposes, with no immediate commercial use. However, the user commits in writing a primer on the subject for the instruction of communities and indigenous people. All publications will be received by the providers.

**Awareness of benefits shared:** Non applicable – research still in progress.

**Continuation of benefits sharing:** Non applicable – research still in progress.

**Other comments:**

In Brazil, malaria is a public health problem, especially for providers of traditional knowledge involved in the project. These traditional communities and indigenous peoples live in isolated spots in the Amazonia and use their traditional knowledge accumulated over generations for the treatment of diseases.