

Research on Malaria Prevention, Detection and Control*

(CNPq Call for Proposals / MS-SCTIE-Decit / Bill & Melinda Gates Foundation number 23/2019)

The National Council for Scientific and Technological Development - CNPq, the Ministry of Health - MS, through the Department of Science and Technology of the Secretariat of Science, Technology and Strategic Inputs - Decit / SCTIE and the Bill & Melinda Gates Foundation make this Call for Proposals public and invite interested parties to submit proposals under the terms set forth herein.

1. Scope

To support research projects that bring significant contribution to the scientific and technological development and innovation of the country, in the areas of prevention, detection and fight against malaria.

1.1 This Call for Proposals has the following goals: To support the development of scientific and / or technological research (about prevention, detection and fight against malaria in Brazil) that can effectively contribute to the advancement in knowledge, training of human resources, creation of products and improvement of health surveillance programs, control, elimination and prevention of this neglected disease, so as to achieve the Sustainable Development Goals, in line with elimination program established by the World Health Organization, with the purpose of improving the health conditions of Brazilian population.

1.2 Projects should be classified according to the following Themes or Lines of Research:

1.2.1 Treatment:

1.2.1.1 Evaluation of adherence to malaria treatment in Brazil and compliance with the therapeutic regimens recommended by the Ministry of Health.

1.2.1.2 Goal: To support studies that assess strategies to encourage the adherence to treatment in patients with malaria, as well as studies that help assess the effectiveness of therapeutic regimens recommended by the Ministry of Health, so as to promote the improvement of current protocols.

1.2.2. Diagnosis and Epidemiology:

1.2.2.1 Strategies to improve surveillance of malaria cases in the Amazon, in order to better understand the outbreaks of infection and the impact of migration patterns.

1.2.2.1.1 Goal: To support studies that propose new approaches to malaria control and registration in the states that make up the Amazon region; new strategies for the early identification of outbreaks in the region; and studies to assess outcomes related to migration flows in this region.

1.2.2.2 Development of new diagnostic methods and surveillance approaches for *P. vivax* in patients with low parasitemia, including the detection of latent and subclinical infection in humans.

* This document is an unofficial and translated summary of the official notice issued by the Ministry of Health. For complete information, refer to the [complete notice in Portuguese](#)

- 1.2.2.2.1 Goal: To support studies that develop more sensitive methodologies and strategies to detect low parasitemia, aiming to improve surveillance of latent or low parasitemia cases.
- 1.2.2.3 Development of tests that detect hypnozoites and /or relapse biomarkers.
 - 1.2.2.3.1 Goal: To support the development of efficient methodological proposals for the detection of hypnozoites and the prediction of malaria relapse.
- 1.2.2.4 Development and validation of malaria diagnostic technologies in remote areas, in locations with difficult access or without electricity.
 - 1.2.2.4.1 Goal: To support the development and improvement of malaria diagnostic strategies in vulnerable populations living in areas without adequate infrastructure or poor health care coverage.
- 1.2.2.5 Evaluation of sensitivity, specificity and cost-effectiveness of new diagnostic methods compared to microscopy.
 - 1.2.2.5.1 Goal: To support studies that evaluate whether new diagnostic methods for malaria are more sensitive, specific and economically viable than the *P. vivax* microscopic detection method.

1.2.3 Vector Biology and Control:

- 1.2.3.1 Studies in vector biology, including vector-pathogen interactions, vector ecology and its geographical distribution.
 - 1.2.3.1.1 Goal: To support studies that increase knowledge about the vector, including its biology, interaction with the plasmodium and relationship with the environment, with the purpose of preventing transmission.
- 1.2.3.2 New tools for vector control and management of insecticide resistance.
 - 1.2.3.2.1 Goal: To support studies that develop more effective tools for vector control and for the overcoming of insecticide resistance.
- 1.2.3.3 Studies on minimal parasitic burden for the infection of anophelines and malaria transmission to humans.
 - 1.2.3.3.1 Goal: To support studies that evaluate and determine the lowest parasite burden required in the vector and in humans, to maintain malaria endemicity.
- 1.2.3.4 Evaluation of impact and costs associated with strategies and use of insecticides to control malaria vectors.
 - 1.2.3.4.1 Goal: To support studies that measure the economic, environmental and health impact of strategies adopted by health professionals in the control of anopheles mosquitoes.

1.2.4 Economic Impact Assessment of Social Technologies:

1.2.4.1 Economic impact assessment of uncomplicated and severe malaria cases in areas with and without transmission of the disease in Brazil.

1.2.4.1.1 Goal: To support the development of studies that provide an understanding of the economic impact of malaria in endemic (with transmission) and non-endemic (without transmission) areas of Brazil and the development of more accurate tools for this assessment.

1.2.4.2 Assessment of public perception of malaria and their acceptance / satisfaction with the control strategies implemented in Brazil.

1.2.4.2.1 Goal: To support the development of studies on the failures / successes of malaria control measures implemented by the healthmanager, by assessing popular perception, and proposing more effective alternatives to improve surveillance and health care services.

1.2.5 For all lines of this Call for Proposals, projects are expected to propose solutions that:

- a) Are audacious and clearly different from standard practice;
- b) Are practical, affordable and scalable;
- c) Provide access ensured to vulnerable populations;
- d) Can cause significant and sustainable impact;
- e) Can be monitored, measured and evaluated.

1.2.6 The following shall not be accepted:

- f) Basic research not directly related to malaria prevention and control;
- g) Studies proposing solutions that apply only a small number of individuals at risk of being infected with malaria;
- h) Projects that are not scalable by their very nature or because they apply only to a small subgroup of the population;
- i) Projects without adequate assessment measures of success or failure that will support decisions on funding continuation;
- j) Studies proposing solutions that represent only limited advances of existing approaches;
- k) Studies that propose a repetition of an approach in a new geographical location, without adding innovation.

1.2.7 Proposals for literature review or systematic studies shall not be funded.

1.3 Once the proposed research is concluded, the Ministry of Health will ask the researcher for an Executive Summary containing the synthesis of the main research results with accessible and appropriate language to the target audience. The project coordinator shall forward this document directly to the Ministry of Health. The research project shall also include a plan to disseminate the actions and results of the study. In order to meet these specific demands, a scientific outreach specialist may be included in the team or an outsourced team be hired, with specialization in knowledge translation with project resources;

1.3.1 The study coordinator shall make available, upon request of the MS, the database collected during the research.

1.4 At the end of the research project, the Bill & Melissa Gates Foundation will request that researchers whose projects have been partially or fully funded, submit a Final Report. The report should be a document describing the work done with project funds during the research period. The technical section shall include collected data, developed models and summary conclusions. The financial section should contain a description of how project resources were spent.

2.0 Schedule

PHASES	DATE
Call Launch in the Official Gazette and on the CNPq website	30/08/2019
Call Challenge Deadline	09/09/2019
Deadline for submission of proposals	14/10/2019
Judgment by the Technical-Scientific Merit Committee	04/11/2019
Judgment and Final Classification by the Social Relevance Committee	11/11/2019
Disclosure of the preliminary results of the judgment in the Federal Official Gazette, by extract, and on the CNPq website	18/11/2019
Deadline for administrative appeal of preliminary judgment result	28/11/2019
Final Disclosure of the proposals approved in the Official Gazette, by extract, and on the CNPq website	05/12/2019

3.0 Eligibility Criteria

3.1 The eligibility criteria listed below are mandatory and the absence of any of them shall result in rejection of the proposal.

3.2 Regarding the Proponent and Team:

3.2.1 The tenderer, the party submitting the proposal, shall comply with the following items:

- a. must have a CV registered on the Lattes Platform, updated up to the last day for submission of proposals;
- b. must hold a PhD or the title of Associate Professor;
- c. must be the project coordinator;
- d. must be formally employed by the institution executing the project or, if retired, must show evidence of ongoing academic-scientific activities and present a statement by the project execution institution, showing its agreement.

3.2.2 In the submission form, the tenderer shall certify that he has no debt with the CNPq or with the Federal Public Administration, directly or indirectly, under penalty of rejection.

3.2.2.1 If this statement is proven false, at any time, the CNPq shall take the appropriate measures, as indication of fraudulent misrepresentation.

3.3 Regarding the Project Execution Institution:

3.3.1 The project execution institution must be registered in the CNPq Directory and must be a Scientific, Technological and Innovation Institution (ICT).

3.3.1.1 Scientific, Technological and Innovation Institution (ICT) is: a public administration agency/ entity or a non-profit private entity legally constituted under Brazilian law, with its headquarters and jurisdiction in Brazil, that has included basic or applied scientific or technological research or the development of new products, services or processes, as part of its institutional mission or social/ statutory objectives.

3.3.2 The proponent must have a contractual relationship with the project execution institution.

4. Financial resources

4.1 The approved proposals will be funded by resources totaling:

- a) R\$ 10.200.000,00 (ten million two hundred thousand Brazilian Reais) from the budget of Decit
- b) / SCTIE / MS, of which R\$ 5.000.000,00 (five million Brazilian Reais) are for general expenses, R\$ 3.000.000,00 (three million Brazilian Reais) for expenses with scholarships and R\$ 2.200.000,00 (two million two hundred thousand Brazilian Reais) for capital expenses. Funds will be released in four installments, depending on the budgetary and financial transfer from MS to CNPq; and
- c) US\$ 1,000,000 (one million dollars) from the Bill & Melissa Gates Foundation, will be released in installments to be set by the foundation.

4.1.1 If the disbursement occurs in more than one financial year, the transfer for each year will depend upon the budgetary and financial availability of CNPq and other partners.

4.1.2 The approved proposals will be funded by financial resources from TED 15/2019 signed between Decit / SCTIE / MS and CNPq.

4.1.3 In the approval information letters, as well as in the concession terms signed, only the amounts to be passed by the CNPq will be mentioned.

4.2 The Bill & Melinda Gates Foundation has expressed interest in allocating \$ 1,000,000 (US\$ 1 million) of resources to Thematic Lines 11.2.1, 1.2.2 and 1.2.3 of this Call for Proposals.

4.2.1 Funds from the Bill & Melinda Gates Foundation will be passed on separately by the Foundation to the institutions implementing the approved projects, and at any time there will be no transfer of these resources through the CNPq.

4.2.2 In cases where the Bill & Melinda Gates Foundation expresses a clear interest in financing, totally or partially, the approved project, this foundation will be responsible for this communication, as well as for the transfer of the approved sums.

4.3 Once it is identified as convenient and timely, and if there are additional resources available for this Call for Proposals, the CNPq (and partner(s)) may decide, at any stage, to supplement the contracted projects and / or contract new ones among those approved on merit.

- 4.4** It is estimated that supported projects will receive a minimum financing of R\$ 500,000.00 (five hundred thousand Brazilian Reais) and maximum of R\$ 2,000,000.00 (two million Brazilian Reais), including expenses, capital costs and scholarships. However, projects involving clinical trials and studies of national representativeness / scope or developed in network or multicenter may be given values higher than those established by this funding range, provided they have scientific merit and social relevance.
- 4.5** The tenderer may only submit a single project, and for only one of the Thematic Lines, except for the provisions of sub-item 6.9 of this Call for Proposals.
- 4.6** Budget cuts, where appropriate, should not exceed 20% of the overall amount requested, to ensure the feasibility of project implementation.
- 4.7** The proposed budget must provide resources to enable the coordinator to participate in three Project Monitoring and Evaluation Workshops, to be held in Brasilia/DF, with an estimated duration of up to three days each, according to the calendar described in sub-item 12.2. of this Call for Proposals.
- 5** Fundable Items
- 5.1** The resources of this Call for Proposals shall be used to finance expenses, capital costs and / or scholarship items, including:
- 5.2** Expenses:
- a) consumables;
 - b) third-party services - full or partial payment of contracts to individuals or legal entities, of any nature;
 - c) ancillary import expenses; and
 - d) tickets and per diem, according to the Daily Value Tables for Individual Aid and Short-Term Grants.
- 5.2.1** The proposed budget must provide resources to enable the coordinator to participate in three project Monitoring and Evaluation Workshops, to be held in Brasilia/DF, with an estimated duration of up to three days each, according to the calendar described in sub-item 12.2. of this Call for Proposals.
- 5.2.2** The proposal should include the allocation of resources to hire a scientific outreach professional as a team member or the hiring of a team specialized in knowledge translation in order to provide adequate dissemination of the actions and outcomes of the study into society.
- 5.2.3** Proposals that include clinical trials shall include resources in their budget for reimbursement to research participants, according to Resolution of the National Health Council No. 466/2012, insurance for the research participant, regulatory fees and data monitoring.
- 5.2.4** Any payment to individuals must be made in accordance with the legislation in force, so as not to characterize it as an employment relationship.
- 5.2.5** The workforce involved in the execution of the project shall not have any link with the CNPq and shall not demand from the latter any payments, as this is the sole responsibility of the coordinator / institution executing the project.

5.2.6 Financial resources received from CNPq may be used to pay publishing costs in the open access model.

5.3 Capital:

- a) permanent equipment and material;
- b) bibliographic material.

5.3.1 Assets generated or acquired under projects contracted in this Call for Proposals shall be incorporated, from their acquisition, to the assets of the Scientific, Technological and Innovation Institution (ICT) to which the project coordinator is linked.

5.3.1.1 It shall be the responsibility of the project coordinator and the ICT to incorporate the property to the institution.

5.3.1.2 The project coordinator shall attach to the Financial Reporting all support documentation demonstrating property incorporation to the into ICT's assets.

5.4 Grants

5.4.1 Grants shall be awarded in the modalities of technological promotion and innovative extension, in the following modalities: Technological and Industrial Initiation (ITI), Technical Support in Extension in the Country (ATP), Technological and Industrial Development (DTI) and Extension in the Country (EXP).

5.4.2 The implementation of the scholarships shall occur within the deadlines and criteria stipulated for each of these modalities in RN 015/2010.

5.4.3 The duration of the scholarships shall not exceed the project execution deadline.

5.4.4 The scholarships shall not be used for payment of services, as this would not be in accordance with the purpose of the CNPq scholarships.

5.4.5 The coordinator shall not receive a scholarship paid with project funds.

5.4.6 It shall be the responsibility of the coordinator, after signing the AGREEMENT WITH CNPq, to nominate who will be the scholarship awarded.

5.4.7 Scholarship may change, considering the project characteristics and modalities foreseen in this Call for Proposals, and according to CNPq rules.

5.4.8 The changes in scholarships will be analyzed by CNPq based on the following criteria:

- a) the scope of the action, project or research cannot change;
- b) justification presented through Scholarship Nomination Form, in the Carlos Chagas Integrated Platform;
- c) maintenance of the total sum approved for scholarships in the project; and
- d) limitation to the final term of the project.

5.5 Expenses prohibited are as follows:

- a) certificates, ornamentation, cocktail, food, concerts or artistic events of any kind;
- b) fixed expenses, such as electricity, water and telephone bills, as these are understood as mandatory counterpart expenses of the project execution institution;
- c) postal and reprographic expenses, unless directly related to the execution of the research project;
- d) payment of administration fees, and management, in any capacity;
- e) civil works (except works such as installations and adaptations necessary for the proper functioning of equipment, which should be justified in the detailed budget of the proposal), as these are understood as a mandatory counterpart of the project execution institution;
- f) purchase of motor vehicles, lease of motor vehicles and expenses with fuel of any kind;
- g) payment of salaries or salary complementation for technical and administrative personnel or any other benefits to staff from public institutions (federal, state and local);
- h) payment of third-party services to active public agent for services rendered, on account of any sources of funds;
- i) payment, in any way, to private companies that have in their corporate structure an active public servant, or an employee of a public institution or mixed economy company, for services rendered, including consultancy, technical assistance or similar.

5.5.1 The coordinator and the project execution institution shall be responsible for all other expenses and resulting actions.

5.6 For the hiring or acquisition of goods and services, RN 008/2018, which regulates ACCOUNTS REPORTING, shall be observed.

5.7 The CNPq is not responsible for supplementing funds to cover expenses arising from any events that are outside its control, such as currency fluctuation.

6 Proposal Submission

6.1 Proposals shall be sent to the CNPq exclusively through Internet, using the online Proposal Form, available at the [Carlos Chagas Platform](#).

6.2 Proposals submission deadline is 11:59 pm (Brasilia time), of the date stated in the **SCHEDULE**.

6.2.1 Proposals should be sent in advance, since the CNPq is not responsible for delays due to technical problems or internet traffic difficulties.

6.2.2 Submissions after the deadline will not be accepted by the electronic system; therefore, the proposal shall not be accepted, analyzed or judged.

6.3 Clarifications and additional information about this Call for Proposals can be obtained by email at atendimento@cnpq.br or by phone at (61) 3211-4000.

6.3.1 General telephone contact information is available until at 06:30pm (Brasília time) during working days.

- 6.3.1.1 Lack of contact or response from the CNPq shall not be accepted as justification for deadline non-compliance as stated in the proposal submission schedule.
- 6.3.2 It is the proponent's responsibility to contact the CNPq in a timely manner for information or clarification.
- 6.4 All research institutions involved in the project, whether national or international, must register with the [Directory of Institutions](#) at the CNPq.
- 6.4.1 The CNPq computer system shall not accept proposals from research institutions that are not properly registered with the Directory of Institutions.
- 6.5 The online application form should provide the following information:
- a) Proposal identification;
 - b) Proponent's info;
 - c) Participating institutions;
 - d) Main area of knowledge;
 - e) Detailed budget;
 - f) General project data in Portuguese and English, including title, keywords, summary and general objective;
 - g) Team members' info;
- 6.5.1 Registration prior to submission:
- a) Lattes Curriculum: proponent and other project members Taxpayer Identification Number (CPF); and
 - b) Lattes Curriculum or ORCID (Open Researcher and Contributor ID) identifier: other project members with no Taxpayer Identification Number (CPF).
- 6.5.2 The technical team shall consist of researchers, students and technicians. Other professionals may join the team as employees.
- 6.5.3 Only those who have given their formal written consent, kept by the Project Coordinator, should be appointed as participating project institutions and as team members.
- 6.6 Proposals must include separate attached files in equivalent versions in Portuguese and English with the following information:
- a) Project title;
 - b) Coordinator;
 - c) Executing institution / FU;
 - d) Research Thematic Line (Line 1; 2; 3 or 4);
 - e) Participating institutions;
 - f) Substantial possibilities of national and international collaborations or partnerships for project execution;
 - g) Previous collaborations or partnerships for network activities;
 - h) Proposal relevance justification / Problem Statement / Project relevance for scientific, technological development or innovation;
 - i) Objectives (general and specific);
 - j) Proposal goals and indicators;
 - k) Methodology;
 - l) Proposal execution steps and schedule of activities;
 - m) Results, scientific and/or technological contributions, products (methods,

techniques, technologies, medicines) and the solutions expected from the research project, together with expected annual delivery schedule, as well as applicability in the SUS (Unified Health System) and project potential impact and relevance for health care improvement and malaria surveillance;

- n) Plan for scientific outreach and dissemination of initiatives and actions resulting from research project (knowledge, methods, techniques and technologies developed during the project). The plan's goal is to leverage knowledge democracy in society by: i) engaging groups and institutions that work in formal and non-formal education and outreach areas (e.g. schools, hospitals, extension centers, museums, science centers, non-governmental organizations, etc.); ii) targeting different populations (health administrators, local communities, public policy makers, among others); iii) including education and scientific outreach professionals in the project;
- o) Detailed budget, including resource allocation as set out in paragraphs 5.2.1 and
- p) 5.2.2 of this Call;
- q) Effective availability of infrastructure and technical support to develop the project;
- r) Project counterpart (financial resources from other public or private sources for allocation in the project).
- s) Intellectual property related search results regarding the project theme; (if applicable)

6.6.1 Only PDF files attached to the online Proposal Form, up to 1 MB (one megabyte) will be accepted. Main proposal description information (6.6 points "a" to "m") should not exceed 5 pages in total. Other items and attachments may exceed this page limit if necessary.

6.6.2 Figures, charts, photos and /or other items included in the presentation of the proposal should not exceed the file size since proposals over the 1Mb limit will not be accepted by the CNPq electronic window.

6.7 An electronic protocol receipt will be issued once the proposal is submitted as acknowledgement of receipt.

6.8 Only one proposal per tenderer will be accepted.

6.9 In the event that more than one proposal is submitted by the same tenderer within the submission of proposals deadline, only the last proposal received will be considered for analysis.

6.10 In the event that identical proposals are submitted by different tenderers, both will be rejected by the CNPq.

7 Judgement

7.1 Judgement Criteria

7.1.1 Technical-scientific merit and budget adequacy classification criteria for proposals:

Criteria for the Analysis of Technical-Scientific Merit		Weight	Grade
A	Merit and originality of the proposal, in scientific, technological development and innovation in one or more Thematic Lines defined in the Call for Proposals.	3	0-10
B	Adequacy of methodology to project objectives and technical feasibility, including available infrastructure and project execution risk management.	3	0-10
C	Suitability of the proposal to thematic lines and objectives.	2	0-10
D	Prior experience of coordinator and team, considering their technical and scientific production or professional expertise, to suit the project, according to information in the curriculum registered in the Lattes Platform.	1	0-10
E	Adequacy of the physical and financial execution schedule: activities and budget consistency and planning for short, medium and long-term goals.	1	0-10

7.1.2 Social relevance classification criteria for proposals:

Social Relevance Criteria		Weight	Grade
A	Applicability to the SUS, considering the feasibility of using research results in public health services, programs and / or systems.	3	0-10
B	Potential impact and relevance of the project to improve malaria health care and surveillance.	3	0-10
C	Possibility of positive impact on health conditions of the population.	2	0-10
D	Network, multicenter or nationwide project	2	0-10

8 Implementation and Execution of Approved Proposals

8.1 Proposals participating in this Call for Proposals must have a deadline of 36 (thirty-six) months.

8.1.1 Under exceptional circumstances, the project implementation deadline may be extended upon duly justified request of the proponent, accepted by the CNPq and the by Bill & Melinda Gates Foundation or their representatives.

9 General Provisions

9.1 This Call for Proposals is subject to the provisions that govern public law within the Legal Framework of CT&I (EC 85/2015, Act No. 10,973 / 04, Act No. 13,243 / 2016 and Decree No. 9,283 / 2018) and specifically to the CNPq internal regulations such as RN 017/2011.

9.2 The coordination department responsible for the follow up of this Call for Proposals is the Bioscience Research Program Coordination Department- COBIO (cobio@cnpq.br).

9.3 This Call for proposals may be repealed or revoked, in whole or in part, by a duly substantiated decision made by the CNPq Executive Board at any time, without implying any compensation rights or claim of any kind.

9.4 The CNPq Executive Board holds the right to settle cases and situations not provided for in this Call for Proposals.

9.5 Annexes I, II and III constitute an integral part of this Call for Proposals.

Brasilia, August 30, 2019.