Call for proposals:

Clinical development of a Nipah monoclonal antibody (mAb) to protect against Nipah virus (NiV) disease.

Reference number: CEPI-CfP-OT-001-23

CEPI is pleased to announce a new funding opportunity for the development of a monoclonal antibody (mAb) to protect against Nipah virus (NiV) disease. This document describes the objectives, scope, requirements and processes for submission, review criteria, and timelines. Further details can be found at https://cepi.net/get_involved/cfps/

This Call for Proposals (CfP) invites applicants to submit proposals for funding to conduct the clinical development of an existing Nipah mAb candidate, and to maintain a clinical trial ready reserve (i.e., investigational stockpile) of mAb doses. This CfP will support the conduct of a Phase 1 and/or Phase 2a trial of a highly potent Nipah mAb for use as pre-exposure prophylaxis (PrEP). Clinical studies are supported through Phase 2a, which should be conducted in a Nipah-affected country. Awardees will also be required to store, maintain, and conduct stability testing of a clinical trial ready reserve stored in a Nipah-affected country for up to 5 yrs.

Applicants should submit the details of their overall product development plan, including pre-clinical development plans, chemistry, manufacturing, and controls (CMC), preclinical data, clinical data (if available), regulatory strategy and a clinical development plan for the conduct of a Phase 1 and/or Phase 2a trial in a Nipah-affected country. The clinical development plan should describe timelines, criteria for success, and an assessment of risks and proposed mitigation measures to ensure their resolution. In addition, applicants should submit a plan for the storage, maintenance, and conduct of stability testing of a clinical trial ready reserve of Nipah mAb doses within a Nipah-affected country. A plan for the mAb to be made available to those populations that need it at an affordable but sustainable price in the event of a Nipah outbreak is a requirement for this CfP.

1. Introduction

1.1. The Coalition for Epidemic Preparedness Innovations (CEPI)

The Coalition for Epidemic Preparedness Innovations (CEPI) is an international coalition of governments, academic, philanthropic, private, public, and intergovernmental institutions whose

vision is to create a world in which epidemics and pandemics are no longer a threat to humanity. Our mission is to accelerate the development of vaccines and other biologic countermeasures against epidemic and pandemic threats so they can be accessible to all people in need. CEPI operates under the laws of Norway as a non-profit international association and has offices in Oslo (HQ), London, and Washington, DC. More details about CEPI and our mission can be found on our website: www.cepi.net.

During the COVID-19 pandemic, CEPI recognized that although vaccines provide an effective means of preventing virus spread and controlling disease outbreaks, other medical countermeasures, such as monoclonal antibodies, are also needed for epidemic and pandemic preparedness.

1.2. NiV disease and Development of a mAb for Pre-Exposure Prophylaxis (PrEP)

Nipah virus disease is caused by the Nipah virus (NiV), which is an RNA virus from the Paramyxovirus family. The reservoir host for NiV are bats of the Pteropus genus, also called flying foxes or fruit bats. NiV causes febrile encephalitis and severe respiratory disease in humans and has a case fatality risk (CFR) between 40% and 90%. Outbreaks of NiV occur almost annually in both Bangladesh and India, and the latest outbreak was in early 2023 in Bangladesh where 14 cases of NiV were reported in the surveillance system and only 4 individuals survived.

The development of a Nipah mAb for pre-exposure prophylaxis (PrEP) is intended for use during an outbreak, to contain the virus and prevent a potential epidemic or pandemic from occurring. A Nipah mAb will serve as a bridge, providing immediate passive protection prior to the onset of vaccine-induced immunity. The mAb will be used to protect health care workers (HCW) and other individuals, such as family members and caregivers of Nipah patients, who are at high-risk for Nipah exposure and subsequent NiV disease during an outbreak.

2. Objectives

The overall objective of this call is for funding the clinical development of a Nipah mAb candidate that has already achieved pre-clinical proof-of-concept (POC) for use as pre-exposure prophylaxis (PrEP). In addition, this call will fund the storage, maintenance and conduct of stability testing of a clinical trial ready reserve of mAb doses in a Nipah-affected country for up to 5 years.

3. Scope

This CfP is comprised of two main areas, with two optional areas:

a. A Phase 1 and/or Phase 2a study to assess safety, tolerability, and pharmacokinetics of existing Nipah mAb candidate. Phase 2a studies should be conducted in a Nipah-affected country using a protocol that follows regulatory and GCP guidelines regarding study design, endpoints and assessments, safety monitoring, and statistical and ethical considerations. For Phase 2a studies, the number of participants enrolled, eligibility criteria, dose range, etc. should be based on recommendations from a stringent regulatory authority and harmonized with Phase 1 protocol.

b. The storage, maintenance, and conduct of stability testing of a clinical trial ready reserve of Nipah mAb doses in a Nipah-affected country for up to 5 years.

Optional:

c. GMP manufacturing of clinical trial material, if required
d. Plans and rationale for additional non-clinical/animal testing if deemed necessary for expansion of the indication beyond PrEP.

4. Eligibility Criteria

Project eligibility criteria:

Key criterion:

- Nipah mAb candidate with demonstrated pre-clinical POC data.

Activities considered not eligible for this CfP

- Early stage Nipah mAb discovery or pre-clinical POC studies.

The funding opportunity through this CfP is open worldwide to all types of non-profit research organisations, for-profit companies, international organisations and foundations, joint R&D ventures, government research organisations, and academic institutions. Applicants must be legal entities, or consortia comprised of legal entities.

At least one of the partners in the applicant organisation or consortia of partnering organisations should have significant experience in mAb development, manufacturing and clinical development and have a track record of bringing mAb candidates through to investigational use or licensure. Applicants unable to demonstrate this experience will not be considered eligible for funding.

5. Application Guidelines

Key dates:
30-June 2023 (23:59 CEST) – Intent to apply
4-August 2023 (23:59 CEST) – Completed application submission

a. Application steps and templates

Step 1:

Applicants should inform CEPI of their intent to apply by **30th June 2023 (23:59 CEST)** by e-mail to nipahmab@cepi.net.

Applicants intending to apply will receive instructions for uploading their completed application template via CEPI's secure online portal.

Technical support or clarification on the submission process can be requested by contacting nipahmab@cepi.net. CEPI staff will address your questions within the shortest possible timeframe.

Step 2:

All application documents must be uploaded in the file formats specified below:

- **Completed** application template (pdf file, 10 pages max., not including references and CVs.)
  Note: During the due diligence phase, more detailed information, e.g., an IPDP, will be requested from eligible applicants.

- A list of **relevant publications** in the last 5 years (Section 8 in the application template)

- A maximum of **8 CVs or biosketches** (max. 2 pages per CV/biosketch) for applicants, partners, and key experts. (Section 9 in the application template).

- **Project plan/Gantt chart** (MS-Project format) (requested at due diligence stage).
- **Detailed budget** and **narrative** templates (requested at due diligence stage)
- Signed **letters of support** for **all partners** confirming their agreement to participate in the proposed projects and agreeing with the content of the proposal (pdf file. Requested at due diligence stage)

b. Submission Overview

For submissions to be accepted and registered, applications must fulfil the following criteria:

- Completed application templates must be received by: **4th August 2023 (23:59 CEST)**
- All communication of information and application documents must be in English.
- All budget amounts must be submitted in US dollars.

It is the responsibility of the applicant to ensure that all requested documents are submitted by the deadline and to contact CEPI in advance of the submission deadline in case there are any issues regarding the completeness of the submission.

All applications will be stored in a restricted access repository. Personal data included in proposals will be handled according to CEPI's Privacy Notice www.cepi.net/terms/. All project materials will be considered confidential and proprietary.

Any costs incurred by applicants in the development and submission of proposals to this CfP will not be reimbursed by CEPI.

c. Timeline Overview

- Call publication date: **6th June 2023**
- Email notification to CEPI of intent to apply: **30th June 2023 (23:59 CEST)**
- Call duration: **60 days**
- Submission deadline for applications: **4th August 2023 (23:59 CEST)**
- Peer review: **August 2023**
- Due diligence stage: **Sept. 2023** (anticipated)
- Contract signatures, project launch: **October – December 2023** (anticipated)
- Award duration: up to **6 years**, with the option for extension.

6. Review Criteria

Proposals will be assessed against the review criteria listed below. Performance of proposals will be evaluated through the evidence provided on all aspects of the criteria listed. Therefore, the quality of the information provided by applicants is crucial to allow for a thorough review and for optimal funding decisions to be made.

Application Review Criteria

- Overall development plan, including pre-clinical and clinical development plans
- CMC development plan
- Pre-clinical data
    - Including data that preferably supports sufficient potency for intramuscular (IM) administration.
- Clinical data (if available)
- Regulatory strategy and engagement plan
- Clinical trial ready reserve (e.g., investigational stockpile) maintenance plan
- Organization and Personnel
- Budget

7. Review and Due Diligence Process Timeline

CEPI staff will assess whether received applications fulfil the published eligibility criteria of the call and will send the eligible proposals to internal and independent external experts for review. All reviewers who participate in the review process will be evaluated for any potential conflicts of interest and will be required to sign non-disclosure agreements.

Applicants may be invited to clarify any outstanding questions or provide further details prior to concluding the full review. Proposals and budgets will be subject to a cost challenge undertaken in the context of the applicant's projects and CEPI's policies and cost guidance.

Contract arrangements will be initiated along with technical and financial due diligence and referred to recommendations for funding to the Board. For the candidates not proceeding to due diligence, CEPI will seek to communicate this situation as early as possible during the review period.

CEPI will publicly announce each award when the partnering agreement has been signed. Applicants whose proposals do not advance to contract will be notified confidentially of the outcome of the process.

8. Technical and Administrative Questions

Technical and administrative questions about the Nipah mAb CfP should be directed to CEPI by emailing nipahmab@cepi.net.

9. Award Conditions

Funding must reflect the proposed activities and agreed conditions of the award decision made by CEPI. CEPI reserves the right to terminate agreements according to mutually agreed "go/no-go" decision criteria.

CEPI is committed to enabling equitable access through all CEPI-supported programmes. Specifically, for awards made under this announcement, equitable access will include the following at a minimum:

I. Prompt publication of all results in peer reviewed and open access journals.
II. Generation of a clinical trial ready reserve of mAb doses in a Nipah-affected country to enable an effective outbreak response and the conduct of a clinical trial using an approved protocol.
III. An affordable yet sustainable approach to pricing.

Through its role as a funder of R&D for pandemic preparedness, CEPI will work with key stakeholders, including the awardee, to enable equitable access to a clinical trial ready reserve during an outbreak using an unbiased allocation and distribution process, in accordance with CEPI's Equitable Access Policy and CEPI's principles for maintenance and use of a clinical trial ready reserve.

If you have specific questions regarding the equitable access policy, please contact CEPI at nipahmab@cepi.net

CEPI maintains the following research-related policies to provide further guidance to its research partners on:

- Animal research
- Clinical trials (including transparency requirements)
- Equitable access policy
- Scientific integrity/open access policy

Other policies/guidance designed to support CEPI partners on general administrative issues and ensure investor requirements and industry best practices include:

- Anti-corruption
- International sanctions
- Managing conflict of interest
- Procurement
- Travel
- Transparency and confidentiality
- Cost guidance
- European Union regulatory bodies rights of review and audit plus acknowledgement of EU funding.

10. Animal Welfare and Well-Being

The National Centre for the Replacement, Refinement & Reduction of Animals in Research (NC3Rs) is collaborating with CEPI to embed the 3Rs into CEPI funded projects. The collaboration focuses on reviewing proposals to ensure that animal welfare standards are genuinely high and exceed the legal minima, local issues relating to poor practice are addressed, and overseas work is conducted to standards equivalent to those in the UK (https://www.nc3rs.org.uk/integrating-3rs-publicly-funded-research).

In CEPI's call for vaccine and mAb development, the NC3Rs will only evaluate **proposals entering due diligence/contracting processes** and that include projects involving the use of animals highlighted by NC3R (i.e., non-human primates (NHPs), cattle, dogs, cats, pigs, and equines). Based on the review, the NC3Rs will provide recommendations to CEPI, including advice on opportunities to implement the 3Rs, raise specific animal welfare concerns, highlight where good practice is not being adopted, and monitor the implementation of specific policies and guidance. This advice will be used during decisions on funding and when drafting the terms and conditions of grant awards.

To prepare your proposal for this review process, please consider the following guidelines:

- NC3Rs Guidelines: Non-human primate accommodation, care, and use
- Responsibility in the Use of Animals in Bioscience Research, which applies to use of any vertebrate species.
- ARRIVE Guidelines on the reporting of *in vivo* studies.

Implementation of the principles in these guidelines is a condition of receiving funds from CEPI.

Other information that will be considered during the review can be found on the NC3Rs website:

- Directive 2010/63/EU
- Scientific literature on applying the 3Rs in drug development.
- NC3Rs resources on best practice – including those on improving non-human primate welfare (such as the Macaque Website)

In addition, the NC3Rs has produced a PDF presentation to remind applicants of the required animal welfare standards and to provide advice on choosing appropriate contractors. Applicants contracting out animal research or collaborating with other laboratories (regardless of species) are advised to view the presentation well in advance of submitting their application.

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