MRC COLLABORATING CENTRES FOR MALARIA

Request for Applications (RFA)

MRC-RFA-MOMR-01-2014

16/05/2014
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1. **INTRODUCTION**

Pursuing malaria elimination (zero local transmission of the disease) is rapidly becoming a realistic alternative to malaria control in many malaria-endemic African countries, where malaria cases have been significantly reduced over the past decade. This paradigm shift is largely a consequence of effective malaria control initiatives, which have contributed to a marked decreased in the malaria burden across several countries on the African continent. Countries along the southern most fringe of malaria transmission in Africa, such as Namibia, Botswana, Swaziland and South Africa, already meet the WHO pre-elimination criteria and have therefore been earmarked for malaria elimination by 2020. Swaziland embarked on an elimination campaign in 2011, while South Africa commenced implementation of its elimination strategy during the 2012/2013 malaria season.

Currently in South Africa, malaria is restricted to low altitude border regions (below 1,000 m above sea level) of three provinces, namely Limpopo, Mpumalanga and KwaZulu-Natal, with occasional transmission in the North West and Northern Cape Provinces along the Molopo and Orange Rivers, respectively. Approximately 10% (5.2 of 52 million) of South Africa’s total population resides in a malaria risk area, with the predominant malaria parasite, *Plasmodium falciparum*, primarily transmitted by the *Anopheles arabiensis* mosquito vector. Malaria transmission is meso-endemic, occurring between September and May but peaking in March.

Following the last major epidemic in 2000, where more than 60,000 malaria cases were reported, a two-pronged intervention, focussing on both the vector and
parasite, was implemented across all three malaria endemic provinces. Indoor residual spraying (IRS) formed the principal vector control measure while timely diagnosis and effective treatment with artemisinin-based combination therapy (ACT) were used to control the parasite. These effective, well-structured, sustainable control strategies have resulted in marked reductions in the malaria burden, to the extent that the current malaria incidence in South Africa is less than one case per 1,000 population at risk.

This low malaria incidence has prompted international and governmental organizations to call for the urgent adoption and implementation of elimination agenda by South Africa. Unfortunately these calls have generally been based solely on annual incidence data rather than a rigorous interrogation of the available scientific data. As the consequences of failure are likely to be costly in monetary terms and, more importantly with respect to the loss of human life, the decision to move from control to elimination should not be taken lightly. It is therefore essential the appropriateness, timing, as well as technical, operational and financial feasibility of implementation are thoroughly assessed when embarking upon an elimination programme in South Africa.

The World Health Organisation (WHO) recommends major programmatic reorientation when transitioning from malaria control to elimination. High coverage interventions must become more geographically targeted while laboratory and clinical services together with case reporting and surveillance are substantially up-scaled. The interventions in place for controlling mosquito populations have been used for the past 70 years but are no longer as effective. Currently resistance has
been found in Asia to the only effective drug being used to treat malaria. The future looks bleak unless new methods of application as well as new insecticides and drugs are developed in the near future. Although, in South Africa, there is a case fatality ratio of <1%, this death rate is still too high since malaria is an easily preventable and treatable disease.

2. MRC COLLABORATING CENTRES FOR MALARIA RESEARCH

Due to the declining transmission of malaria in South Africa, more money is being invested in intensifying malaria control programmatic interventions and less funding is available for malaria research. There has been a dearth of clinical trials for malaria prevention or treatment in South Africa. Historically, research funded by the MRC tended to focus on programmatic support for malaria prevention and control and the MRC tended to focus more on supporting the implementation of control programmes with novel research as a secondary focus. Additionally, malaria research is being conducted separately at a number of research institutes in South Africa and a few initiatives have been developed to try to develop synergy between the initiatives to enhance malaria research in the country as a whole and in the southern African region.

During 2012 and 2013, the MRC underwent a process of revitalisation, with the priority being to ensure that the organisation fulfils its mission to increase support for medical research in South Africa. To address the importance of continued malaria research in the face of declining transmission, the MRC Office for Malaria Research (MOMR) was established to develop a South African research plan on malaria, to fund multidisciplinary research to further this plan and to co-ordinate all MRC funded
malaria research with the goal of ensuring that the national malaria elimination agenda is successfully supported so that its 2018 goal can be realised.

As a result of the declining transmission of malaria in southern Africa, four southern African countries, including South Africa are targeting malaria elimination by 2018. South Africa is thus strategically positioned to conduct a range of studies, including large scale population based research that would inform the elimination agenda on a sub-regional and regional level and advance knowledge on the prevention and control of this disease.

Since there are a number of academic institutions, science councils and malaria research initiatives, the MRC is creating a Network of MRC Collaborating Centres for Malaria Research to support the National Malaria Elimination efforts of South Africa and in the region. Similar MRC Networks with Collaborating Centres are being established in HIV/AIDS and TB. In this regard existing groups conducting malaria research, for example in malaria entomology, parasitology and epidemiology are invited to apply to become MRC Collaborating Centres for Malaria Research. High priority will be accorded to those centres that have access to populations living in malaria endemic regions of the country.

Successful applicants will be designated as "MRC Collaborating Centres for Malaria Research", will receive a core grant annually for an initial period of 3 years and will become members of the MRC Network for Malaria Research. The Directors of MRC Collaborating Centres for Malaria Research will be required to attend an annual meeting of the Network, participate in its activities and to contribute to developing the
MRC’s National Malaria Research Plan. MRC Collaborating Centres for Malaria Research will be given a preferential opportunity to participate in national multi-centre studies based on the priorities defined in the plan. These MRC-funded studies in malaria will be defined and developed during 2014 and the early part of 2015 and will lead to calls for participation through RFAs in 2015.

The network of MRC Collaborating Centres for Malaria Research will collectively provide a multi-disciplinary approach to malaria research; synergise efforts on malaria research to achieve common goals whilst also facilitating scientific collaboration among malaria researchers in southern Africa.

3. **ELIGIBILITY CRITERIA**

Higher education institutions, science councils and registered not-for profit research organisations in South Africa, Zimbabwe or Mozambique are eligible to apply. For-profit institutions are not eligible. Intramural MRC units are not eligible but intramural MRC researchers may participate in applications led by an extramural Principal Investigator. Principal Investigators must be citizens of the country from which they are submitting the application.

Only groups actively involved in malaria research should consider applying to become a MRC Collaborating Centre for Malaria Research. A MRC Collaborating Centre will comprise an established group of scientists who have a track record of scientific contributions in malaria. They will have documented proof of recent research experience in any of the following disciplines: basic laboratory science, clinical research, biomedical research, socio-behavioural sciences, epidemiology, public health research and/or implementation science. Expertise and capabilities in
basic and discovery science, translational science, product research and development and surveillance would be advantageous.

The application for a MRC Collaborating Centre will be led by a well-established Principal Investigator (designated as the Director of the Collaborating Centre), who is expected to have a MBCHB and/or PHD. The Principal Investigator is expected to be an internationally recognised leader in his/her field of malaria research. Further, (s)he must have strong scientific leadership skills and an ability to work across disciplines. The Principal Investigator’s 20 most cited publications must be provided in a table in the application—listing each paper as a Vancouver-style reference (authors, title, journal, year, volume and page numbers) with the total number of citations as indicated in Scopus. Further, the full CV listing a May 2014 Scopus H-index should be included as an appendix in the application.

Since this is a Centre application, the Principal Investigator must be supported by at least three other senior scientists. The Principal Investigator and the (at least) 3 senior scientists must provide evidence of a track record of collaboration and joint research. Note that (at least) 3 senior scientists comprising the senior team of the MRC Collaborating Centre do not have to be from the same institution or the same country. The application for a MRC Collaborating Centre must provide detailed evidence of their research impacting policy and/or practice in malaria.
An organisation may submit no more than one application as the host institution of a Principal Investigator, in response to this RFA. The Principal Investigator may not participate in more than one application.

4. APPLICATION SCHEDULE

The timelines for the application process are shown in Table 1.

**Table 1. Application timelines**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Date</th>
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<tbody>
<tr>
<td>Publication of call</td>
<td>16th May 2014</td>
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<tr>
<td>Deadline for submitting applications</td>
<td>15th July 2014</td>
</tr>
<tr>
<td>Evaluation period (indicative)</td>
<td>16th July - 15th September 2014</td>
</tr>
<tr>
<td>Feedback to applicants (indicative): Official letter (award decision)</td>
<td>September 2014</td>
</tr>
<tr>
<td>Grant agreement finalised (indicative)</td>
<td>October 2014</td>
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5. BUDGET

The MRC plans to fund approximately up to 6 MRC Collaborating Centres for Malaria Research. The MRC Collaborating Centres will be given three years of core funding of between R400,000 and R1,000,000 per annum in the initial 3-year funding cycle. The pro-rata budget for the 2014-2015 financial year is capped at R250,000.

Over and above the core funding, the Collaborating Centres will be eligible to apply for specific funding that addresses priority areas of malaria research as set by the MRC Network’s National Research Forum. It is anticipated that this protocol specific funding will be available in 2015, for multidisciplinary, large scale, collaborative projects over three to five years.
Non-allowable costs include:

- Personnel costs;
- Student bursaries, scholarships, etc. However, top-ups of bursaries and scholarships are allowed as per the host institution's policies;
- Indirect costs or institutional overhead costs;
- Purchase or construction of a building;
- Rental costs for space that is owned by the host institution;
- Purchase of office furniture; and
- Attendance of conferences.

6. APPLICATION GUIDELINES

All applications must be submitted on a posted MRC Collaborating Centre Application Form on the MRC website or obtainable from MRC Office of Malaria Research [Professor Rajendra Maharaj, email: rmaharaj@mrc.ac.za, telephone: +27 (0)31 203 4851].

The length of the Application should not exceed 20 single spaced pages, using Arial 11 font. The Application must address the following areas:

- Detailed description of the scientific contributions made by the applying group to date in malaria. Provide a detailed track record of the publications and policy/practice impact of the research.
- Description of Principal Investigator's scientific standing in malaria. (Include a table of his/her 20 most cited journal articles). Describe the Principal Investigator's leadership and administrative capabilities that will serve to manage the MRC Collaborating Centre successfully.
- Describe the senior scientists (at least 3) that will make up the Centre and their scientific contributions in malaria research.
- Describe access to infrastructure, laboratory resources, at-risk and patient populations, databases, biobanks and other unique technologies.
Describe no more than 3 malaria-related studies (up to 400 words for each) that the MRC Collaborating Centre is considering proposing to the MRC Network and would like to lead within the MRC Network.

7 CONDITIONS OF THE GRANT
Successful MRC Collaborating Centre applications will be required to incorporate the MRC logo at the entrance, as well as on letterheads and conference posters, as well as acknowledgement slides in power-point presentations. All publications attributed to a Collaborating Centre will be required to acknowledge the MRC. It is expected that the designated Director (Principal Investigator) from each MRC Collaborating Centre will participate in the annual MRC Network meeting and the National Research Forum to help set a research agenda for the MRC.

8 APPLICATION PROCESS
The call for applications will open on 16 May 2014 and close on 15 July 2014. All applications must be made on the "MRC Collaborating Centre Application" Form obtainable from the MRC website. All applications will be submitted electronically through the MRC system.

9 APPLICATION REVIEW & EVALUATION PROCESS
There will be a two-step review and evaluation process,

- Internal MRC screening for responsiveness to all the specified administrative and procedural provisions required in the RFA, and
- National and International peer-review to assess the scientific merit (and other review criteria as specified below) of applications found to be responsive to the RFA.

9.1 Internal screening
All applications will be screened by the MRC for completeness and responsiveness to Centre requirements and its administrative requirements/provisions. If the
application is found to be incomplete or unresponsive to the provisions described in the RFA, the application will be returned without further review.

9.2 Peer-review of qualifying applications
Each responsive application will be reviewed by local and international reviewers who are experts in the field of malaria. These review comments will be collated for each application and provided to an MRC panel for ranking of the applications.

9.3 Rating of applications
Reviewers will consider each of the review criteria below in the determination of scientific and technical merit, and give a separate score for each. An application does not need to be strong in all categories to be judged likely to have major scientific impact.

Significance: Has the Centre addressed important problems or critical barrier to progress in malaria in its past research? Has the Centre made a significant scientific contribution in malaria to date? Has the Centre generated new scientific knowledge, enhanced South Africa's technical capabilities in malaria research, impacted public health policy or influenced clinical practice? Has its research to date led to changes in the field, methods, technologies, treatments, services, or prevention in malaria?

Investigator(s): Does the Principal Investigator have international scientific standing? Has the Principal Investigator been a lead/senior author in several widely cited journal articles? Are the listed senior scientists well qualified and highly productive scientists? Have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? Does this group of scientists (Principal Investigator plus Senior Scientists) have a productive track record of collaboration with each other?

Innovation: Are the Centre's proposed malaria projects innovative? Does the centre's proposed studies challenge and seek to shift current research or clinical practice paradigms by utilizing novel approaches?
Environment: Will the scientific environment in which the centre functions contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the proposed MRC Collaborating Centre? Does the centre have important at-risk healthy patient populations, existing research programmes or biobanks that could enhance the MRC

10. GRANT PAYMENTS
Grants will be paid to the institution where the Principal Investigator is employed. The disbursement of funds will be according to the disbursement schedule agreed to by the MRC and the institution and will be set out in the agreement between the parties.

11. RESPONSIBILITIES OF THE LEAD INVESTIGATOR
11.1 Reporting
All MRC Collaborating Centre Directors (Principal Investigators) must submit annual reports from the year of receipt of the grant. Reports must be completed on the template provided by the MRC.

11.2 Scientific compliance
11.2.1 Ethics
All MRC Collaborating Centre Directors are required to maintain the highest ethical and safety standards in conducting research, particularly when human and animal subjects are involved. It is the responsibility of the Lead Investigator to comply with all relevant regulations in this regard, including those of the institution at which the research is carried out. An ethics approval certificate from a National Health Research Ethics Committee approved Institutional Ethics Committee must be submitted to the MRC in respect of successful applications before full funding can be released.

11.2.2 Intellectual Property Rights
Funding by the MRC is subject to the provisions of the MRC Intellectual Property Policy (http://innovation.mrc.ac.za/policy.htm) as well as the Intellectual Property
The MRC may require the Centre's Director in the future, in the event of any intellectual property being developed from the funding obtained as a MRC Collaborating Centre, to sign an intellectual property sharing agreement as part of the acceptance of this grant.

11.2.3 Change of Centre leadership

In the event the MRC Collaborating Centre Director leaves the Institution for whatever reason, the MRC must be informed (where possible, prior to the departure of the Director from the Institution), of proposed alternate arrangements for the continued management and leadership of the Centre, with complete documentation that demonstrates the qualifications of the alternate leadership. After reviewing the proposed change, the MRC may decide to terminate the award if there is a determination of insufficient continuing expertise to lead the Centre to a successful conclusion. If the new Director is approved by the MRC, (s)he will be required to sign a revised “Acceptance of Conditions of Grant Award” and submit a CV and attend Research Forum/Network meetings.

12. IMPORTANT INFORMATION

Please take note the following important information:

i. The MRC will utilise the results of the peer review to determine which meritorious applications receive funding. The MRC may also consider additional factors such as geographical diversity, in making its final determinations;

ii. Based on the scientific merit of the applications and/or budget limitations, the MRC may award fewer or more Centres than set out above; The MRC may seek to verify any information provided by applicants through independent research or by third parties approved by the MRC;

iii. An institution may submit only one application for a MRC Collaborating Centre for Malaria Research. There is no limit to the number of times an institution is listed as a collaborator on submissions by other applicants.

iv. The Principal Investigator listed in an application may not be listed as co-investigator on any other applications responding to this RFA.
v. The MRC may use text, video or other visual representation submitted by applicants on the MRC website or on MRC materials for publicity and/or public awareness;

vi. The MRC will provide written summaries of the review findings for those applications found responsive and submitted to the review process. Note

13. CONTACT DETAILS

Please direct your requests for information and questions/queries to:

MRC Office for Malaria Research:

Professor Rajendra Maharaj

e-mail: rmaharaj@mrc.ac.za

Telephone: +27 (0)31 2034581