



## **AESA-RISE Postdoctoral Fellowship (AR-PDF)**

### **Programme**

### **Guide for Full Application form**

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## Summary

This document provides information on completing the online application form for the AESA-RISE Postdoctoral programme.

Interviews will be held at the AAS secretariat for shortlisted candidates in the month of November 2017. During interviews, candidates will be expected to present and defend their research proposal to a panel with representatives from the AR-PDF Programme partner institutions.

The postdoctoral fellowship: The overall long-term goal of the AESA post-doctoral fellowship schemes is to build a critical mass of African research leaders who are well equipped to independently lead science programmes at local and international levels, including the capacity to engage successfully with funders, policy makers, communities and other stakeholders, and to serve as mentors and supervisors for the next generation of researchers in Africa. The duration of the programme is three years.

Research proposal: A comprehensive research proposal of 2000 words is required to be uploaded to the form, in addition to a 200-word summary. It is important that you understand your research area thoroughly, providing an excellent, concise description in the proposal.

Supervisors/Collaborators: You must suggest a supervisor and host institution for your postdoctoral fellowship. It is expected that the supervisor would be an expert respected internationally in your proposed research subject area. If you already have established contact with the named expert and is willing to host you for the postdoc fellowship, that would be very good. That notwithstanding, you are encouraged to suggest an expert supervisor/collaborator in your field of research even if you have not made direct contact with the expert before submitting the application.

Expert References: You will be required to provide names and contact details of experts in your field, aside your suggested collaborator/supervisor who could provide expert opinion on your proposed research. The named and contacts MAY be contacted by the selection panel to review your application after it is submitted, if considered necessary.

Financial support: Standard provision will be made for successful candidates as follows to ensure a successful programme. Costs to be covered include visas, return ticket/airfare, stipend and salaries, travel insurance, direct costs of the research, support for the home Institutions where fellows will be coming from, allowances for a technician, mentorship and networking and collaborations

## 1. Introduction to the Application Guide

This guide provides practical information to potential applicants in preparing and **applying for the AESA-RISE Postdoctoral Fellowship programme (AR-PDF)**. To be able to apply, one must register to get access to the web-based **AAS Ishango Online System** (<https://aasishango.ccgranttracker.com/Login.aspx?ReturnUrl=%2f>) for preparing, uploading and submitting a proposal. Practical information about the AAS Ishango online system can be found under section 3 in this guide. The main goal of this guide is to highlight the practical side of preparing and submitting an application.

## 2. Overview of fellowship

The period following completion of a PhD is a critical one in the development of a research career. It provides the opportunity to demonstrate originality, creativity, productivity and potential to develop as an independent scientist. Africa largely lacks a structured postdoctoral system necessary to support this critical career-development stage. Consequently, doctoral graduates often become immersed in administrative and teaching duties immediately after graduation and lose their research focus and ambitions. The result is a block early in the pipeline of producing the world class researchers Africa desperately needs for the development of science-led, knowledge-based economies.

The overall long-term goal of the AESA post-doctoral fellowship schemes is to build a critical mass of African research leaders who are well equipped to independently lead science programmes at local and international levels, including the capacity to engage successfully with funders, policy makers, communities and other stakeholders, and to serve as mentors and supervisors for the next generation of researchers in Africa.

With support from Carnegie Corporation of New York (CCNY), the African Academy of Sciences (AAS) – Alliance for Accelerating Excellence in Science in Africa (AESA) aims to address this challenge by providing a quality post-doctoral training programme that is well structured to ensure the holistic development of the next generation of Africa's research leaders.

The AR-PDF Programme Fellows will be supported to track their career via an up-to-date online log of activities before, during and after their fellowship. The log will be a useful resource for the AR-PDF fellow to reflect on the progress made as a result of the fellowship, and would also be used to flag any problems encountered. The log will also be used in reporting on the AR-PDF Programme to funders and programme Steering Committee members.

The AR-PDF Programme Fellows would also be invited to contribute to online blogs, Op-Eds, etc, to track their thoughts and experiences throughout the fellowship, and this will be available to view by the general public. This process is an excellent way to enhance visibility of work and profile of AR-PDF fellows, promote the AR-PDF Programme, and also serve as a helpful reference for others to gain insight into a Fellows' experience. AR-PDF Programme also provides funds for fellows to attend/participate in relevant international conferences.

The long-term expectation is that each fellowship will result in publications, new grants, on-going collaborative research work and an expansion of international research networks. To make this happen, the programme management team will stay in touch with fellows and request updates on a long-term basis.

### 3. Submitting an application in AAS Ishango Grants Management

All applications should be submitted via AAS Ishango Grants Management System by the deadline indicated for this call. AAS-AESA calls will not allow submission of an application after the specified deadline and so you are advised to submit your application as early as possible to avoid any last minute technical problems. Late applications cannot be accepted. Email submissions will not be accepted. Incomplete applications may not be accepted.

Information on submitting an application in AAS Ishango Grants Management is available at [www.aasciences.ac.ke/download/582d74174eeeb/](http://www.aasciences.ac.ke/download/582d74174eeeb/) for download.

### 4. Type of Fellowship

This is a single category of postdoctoral fellowship to support early career researchers (less than 7 years after PhD graduation) that can be applied for by all RISE/Carnegie-funded PhDs in recognition that research careers do not always progress in a uniform way, especially if applicants are moving fields or returning after career breaks.

The key input will be an opportunity for world class mentoring, access to good R&D facilities, support for direct research inputs and stipend support to allow them to settle and begin to build careers that are fully entrenched in the continent. This will require securing broad institutional support for protected research times, complementary resources, travel time, leave to work in an affiliated institution for up to 6 months, gender sensitive policies, clear prospects for staff establishment and career progression in their home institutions.

The call for applications prioritizes research areas that are critical to sustainable development in Africa and complementary to other AESA programmes that are focused on developing scientific leadership, research excellence and STI programmes in Africa. Applicants are encouraged to draw on varied disciplines contributing to medical, agricultural, aquatic, environmental and engineering sciences, with cross-cutting themes that include climate change, material sciences, natural products, and applications of data, modelling and informatics, to address the priority areas.

#### 4.1 Number of fellows

Ten (10) fellowships will be awarded. All fellows will be PhD graduates of The African Regional Initiative in Science and Education (RISE) programme.

#### 4.2 Costs and Funding

The full cost for AR-PDF Programme per fellow is a maximum of USD 144,477.10. This will cover expenses including:

- Direct research inputs/running
- Home Institution Support at USD 500 per month.
- Fellows' salary pegged at an average of \$ 1,400 pm to cater for salary top-ups at 3% annual increment.
- Fellow's external stipend while on 3-month study abroad
- Fellows' Travel Costs for the 3-month research/mentoring visit
- Allowances for technicians calculated at \$ 250 pm for one technician per fellowship for eight months per year
- Cost of mentorship
- Networking and Collaborations costs to be done in year 2 which will include establishing a

community of practice

There will be other AR-PDF Programme activities such as Inception meeting and Annual Scientific Meetings at which fellows will be expected to give a presentation about your fellowship. The costs of accommodation, travel, meal visas and any other costs directly related to fellows' participation will be covered by AR-PDF Programme.

#### 4.3 Support to Home Institutions of AR-PDF Fellow

One of the key ingredients of a thriving research establishment is a cadre of postdoctoral fellows who are able to focus on research while under stringent mentorship supervision to develop into leaders who can deliver projects, products, partnerships and collaborations that drive a successful research group enterprise. In addition, post-docs are also able to support the group leaders in guiding and providing practical training and advice to graduate students recruited into a research group (those studying for Masters and PhD degrees). Research universities in Africa can benefit hugely from programmes that recruit the best trained PhD holders from anywhere in the world as postdocs, helping to elevate their research stature and entrepreneurial and innovation programmes. This in turn will make these universities locally and globally relevant centers of excellence capable of attracting world class researchers and funding to create new products, services and enterprises. The dilemma however is that very few African universities have post-doc positions as an established staff position or provide career pathways for post-doctoral fellows. This is the change we hope to catalyze through the AESA Post-Doctoral Fellowships over the coming years.

### 5. Duration of Post-doctoral fellowship

The AESA – RISE Post-Doctoral Fellowships will be for a fixed term of 3 years for each applicant. No cost extensions can be considered in line with the AAS Grants Management Policies.

### 6. Host Institutions

Each postdoc who is awarded a fellowship will be hosted by a leading African institution able to provide an excellent research environment and facilities that match the fellow's career ambitions. The programme will ensure that an institution is only approved to host a postdoc when it can prove that it has the conducive environment to support successful development of the Fellow. The AR-PDF team will conduct site visits in some cases to ascertain the status of a host institution before making the award.

Applicants to the programme are encouraged to critically explore all leading African universities and research institutes, including those that make up the African Research University Alliance (ARUA) to consider as host institutions and, preferably establish contacts before applying. RISE Universities and Institutions are also potential host institutions as well as the six Centers of the African Institutes for Mathematical Sciences (AIMS), especially for applicants interested in applications of the mathematical sciences (data analysis and modelling as it relates to their work).

At the host institution, the AR-PDF fellow would be allocated desk/bench space to carry out your research activities on a full-time basis (or as agreed with your collaborator[s]), and will have regular contact with supervisor/collaborator(s). The fellow is advised to prepare well in advance so that they can arrange to carry along any data/chemicals/biological material etc., and check if any regulations apply to carrying them into the host country. If necessary, it is possible to order chemicals/reagents in advance with the

help of supervisors/collaborators to ensure all that is needed to start research upon arrival are in place.

## 7. Overview of short research/mentoring visits to northern institutions

These visits are designed for to be effective from the second year of the fellowship. The short-term research/mentoring visits to northern institutions is designed to offer exposure and mentorship by top-leading institutions and researchers to the postdocs and establish networks for future collaboration. AESA-RISE postdoc fellows through this component of the programme will be exposed to world-class science and obtain personalised training and mentorship. Fellows will be linked to wider scientific networks, and mentored in the preparation of competitive grant applications using expert review and practice interviews. The fellows will attend expert seminars from world-leading scientists, expert faculty support. The following institutions have indicated their willingness to partner with the AESA – RISE postdoctoral programme to explore hosting of the postdocs for up to 3-months research visits:

- i. The University of Cambridge-Africa Programme. Cambridge-Africa has full access to scientific excellence and expertise across the whole university and its internal and external partners, which include the Wellcome Trust Sanger Institute and the Wellcome Trust-Cambridge Centre for Global Health Research (WT-CCGHR). Cambridge-Africa will support candidate selection and provide research mentoring utilising Cambridge-Africa's extensive mentor database and the experience of a fellowship coordinator.
- ii. The Africa Oxford Initiative (AOI) will assist identified/selected post-docs through matching of the fellows' requirements and skills to suitable mentors in Oxford University, access to state of the art facilities etc.
- iii. The International Science Programme (ISP) ([www.isp.uu.se](http://www.isp.uu.se)) at Uppsala University, Sweden, provides long-term support to research groups and networks in Africa to strengthen their human and technical capacity for scientific research. ISP is collaborating with most Swedish universities, which are available for partners to seek sandwich postgraduate programs. The range of scientific host extends also outside Sweden and includes collaborators at African universities.
- iv. The Swiss – African Research Programme SARECO at University of Basel in Switzerland. This institution is mandated by the Swiss State Secretariat for Education, Research and Innovation the University of Basel, a research-intensive, and the oldest, university in Switzerland, together with the Swiss Tropical and Public Health Institute, has been initiating and funding research partnerships between universities in Switzerland and Sub-Saharan countries since 2007.

AR-PDF Fellows would also have opportunity to identify and recommend other global institutions where they wish to undertake their short research/mentoring visit. The dates of the visit must be agreed by fellow, his/her collaborator(s), Head of Department, host institution, and the AR-PDF programme management. Once the visit dates are agreed and set, it is very inconvenient for these to be changed at a later date, due to the many arrangements put in place for these exact dates.

## 8. Research Proposal

As part of the application process, you will need to submit a research proposal for your Postdoctoral fellowship. A comprehensive research proposal of 2000 words is required to be uploaded to the form, in addition to a 200-word summary. It is important that you understand your research area thoroughly, providing an excellent, concise description in the proposal. The quality of your

proposal is a significant factor for the success of your application and needs your utmost attention. The following general guidelines will help you to compose and submit your proposal.

8.1 A clear idea and working title

- ✓ Early in the proposal, you should briefly and clearly explain what your project is about.
- ✓ The title should reflect the project's topic.

8.2 Purpose, key objectives and relevance of research project

- ✓ Explain the main idea behind the research: what is the intellectual puzzle you are interested in studying?
- ✓ What is the central research question?
- ✓ Explain the major aims and objectives of the project (e.g., what do you want to demonstrate/ critically assess/question/challenge?)
- ✓ Outline why you consider this research to be important/necessary (relevance to the academic field and, if applicable, to the sociopolitical world).
- ✓ What is the potential impact of the proposed work and for which audiences (e.g. academia, policy-makers, civil society etc)?

8.3 Context and background knowledge

- ✓ Outline how the topic of your project relates to 'the state of the field', i.e. how you would locate it in the existing academic literature.
- ✓ Demonstrate an initial understanding of the major debates and/or some specific works which are closely linked to your topic. Include bibliographical references as appropriate.
- ✓ Explain how your project contributes to the existing literature, how it criticizes and disagrees with it and how it builds upon existing work.
- ✓ Identify the links you see between the Department's research agenda and your topic.

8.4 Research Design and Methodology

- ✓ Outline the selection of cases/processes/people and your reasoning behind it.
- ✓ Explain which method(s) and approach(es) you will use to study your topic, and why. For example, will you conduct a comparative study, or analyze a single case study; will you apply an existing theoretical approach to a particular set of cases; will you interview individuals, conduct archival analysis or use an oral history approach? A rigorous methodology is an important component of a strong proposal.
- ✓ Attempt to address any concerns the readers might have about the feasibility of the project (e.g., with respect to the collection of data/access to sources/number of cases/lack of specific approach).

8.5 Timelines

- ✓ Briefly outline how you anticipate your project to unfold over the period of your AR-PDF fellowship.
- ✓ Provide the reader with a rough indication of the major stages of the project.

8.6 References

- ✓ Include a list of references to the work you will have referred to, or quoted, in the previous sections.

## 9. Assessment and Selection Process

The assessment criteria for successful applications will be based on the quality of the applicants' training experiences, their record of research accomplishments, the scientific merits of their proposed research program, relevance of the research to global, continental and national priorities, and their potential for development into research leaders. Budgets will be scrutinized for appropriateness.

Review of applications will be done by an international panel of experts who have both strong scientific credibility and sufficient knowledge of the African research environment to be able to judge the value addition the application brings. Successful applicants will have a strong track record in their



areas of research and show the potential to become scientific leaders. In summary successful proposals will be evaluated based on the following criteria:

- i. Scientific and technical excellence, including a clear and rigorous conceptual framework for research activities
- ii. Innovation, including creativity of the project's approach and clear differentiation from existing approaches.
- iii. Unique project resources, including investigator and host institution capabilities and potential to enhance collaborations, mentorship and supervision in future.
- iv. Value in terms of appropriateness of the budget and timelines relative to project complexity, risk, and potential outcomes/impact.
- v. Potential to lead to significant advancement of knowledge in the chosen field of study, or solutions with wide application and substantial impact
- vi. The Home Institution of the applicant agreeing to protect research time of the staff in situations where the postdoc fellow is hosted in his/her home institution

Successful candidates are expected to commence their postdoc fellowship from January 2018. The timelines for application and selection process are provided below for your guidance:

|    | Activity  | Dates                          |
|----|---|--------------------------------|
| 1  | Call for Applications                               | 01 June – 30 June 2017         |
| 2  | Desk Review and Triage                              | 03 July – 28 July 2017         |
| 3  | Internal/external review of proposals               | 01 August – 29 September 2017  |
| 4  | Review and portfolio selection                      | 02 October – 13 October 2017   |
| 5  | Shortlisting of successful applicants               | 16 October – 27 October 2017   |
| 6  | Notification to applicants                          | 30 October – 31 October 2017   |
| 7  | Face to face interview with shortlisted candidates  | 20 November – 30 November 2017 |
| 8  | Funder due diligence, legal review and grant-making | 01 December – 08 December 2017 |
| 9  | Staff and/or funder due diligence visit             | 11 December – 15 December 2017 |
| 10 | Announcement of awards                              | 18 December – 22 December 2017 |

#### 10. Disability and special needs

Details on disabilities or special access/needs requirements will be requested after shortlisting stage, and every effort will be made to accommodate these during your fellowship.