



**National
Research
Foundation**

**Global Knowledge Partnerships Programme
Implementation Framework for 2023 Academic Year**

NRF Partners for the Global Knowledge Partnerships Programme



science & innovation

Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA



International Institute for
Applied Systems Analysis

IIASA www.iiasa.ac.at



Deutscher Akademischer Austauschdienst
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Mitacs



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ICGEB

International Centre for Genetic
Engineering and Biotechnology

Developing
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JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE

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1. Introduction

1.1. Purpose

This Global Knowledge Partnerships (GKP) Implementation Framework document presents the guiding principles and key approaches required to integrate and incorporate a period of three (3) to eighteen (18) months of international experience opportunities into the research and education programme of exceptional doctoral students, postdoctoral fellows, and Early Career Researchers (ECRs)¹ who are funded by the National Research Foundation (NRF). The exceptional doctoral students, postdoctoral fellows and ECRs will either be based at a local university or pursue a joint degree² or undertake short-term research visits at an international institution to advance their research projects aligned to specific thematic areas.

The objectives of the GKP programme are to:

- Accelerate the career pathways of exceptional early career researchers and postdoctoral fellows to become leading international researchers with strengthened academic rigour and competitiveness through increased international exposure, collaboration and mentorship opportunities;
- Strengthen the NRF's capacity to identify and sustain partnerships that enhance international opportunities for exceptional doctoral students, postdoctoral fellows, and ECRs, working in close collaboration with higher education and research institutions;
- Create platforms that increase international networking opportunities for a globally engaged cohort of exceptional doctoral students, postdoctoral fellows and ECRs; and
- Contribute to the NRF's transformation imperatives, as guided by the approved Transformation Framework.

1.2. Background

International exposure for doctoral students, postdoctoral fellows and ECRs is an integral component of the NRF's strategic goal to create an internationally competitive, transformed, and representative researcher cohort. The NRF will continue to monitor, offer, source and exploit new, and realign existing programmes to facilitate opportunities for outstanding

¹ Early Career Researchers are young researchers in knowledge institutions (normally younger than 35 years of age), with a doctorate completed within the previous five years, who, on the basis of potential, are considered likely to become future established researchers in their field. These researchers are employed full-time at their institutions.

² A joint degree is a single doctoral degree awarded by joint decision of a South African University and its international partner university at the successful completion of a jointly defined and entirely shared doctoral study programme. A joint degree requires that all participating institutions are responsible for the entire programme and not just their own separate parts.

doctoral students, postdoctoral fellows, and ECRs in South Africa to spend between three (3) to eighteen (18) months abroad, i.e., in Africa and beyond.

The programme is premised on the need to accelerate the development of a diverse young researcher cohort into world-renowned experts and a globally competitive workforce through provision of platforms and pathways that offer opportunities for outstanding young researchers to access international networks, mentorship, global research funding streams, industry, and infrastructure. The programme will be realised through the guiding framework of the GKP programme, a DSI-NRF initiative which was implemented in 2020.

Through this initiative, the NRF, working in close collaboration with local and international partners, in addition to the higher education sector in South Africa, intends to guide and monitor opportunities for outstanding NRF-funded doctoral students, postdoctoral fellows and ECRs to spend a significant period abroad at universities, research performing entities, science councils and in industry.

2. Components of the GKP programme

The design of the GKP programme is premised on a sustainable partnership model comprising interdependent and interrelated components being:

- South African researchers: Leverage and consolidate international exposure outputs for NRF-funded programmes, i.e., Research Chairs, that are aligned with the GKP. A holistic measuring approach across NRF programmes will be developed to streamline and quantify international exposure opportunities for PhD students, postdoctoral fellows and ECRs;
- South African universities: Leverage international networks of universities in partner countries to create international placement opportunities; and
- Funders and Partners: Local public funding entities (including NRF, DHET, TIA, etc.), science councils, industry and international funders and networks. The programme will also engage local partners for potential re-alignment of funding opportunities (e.g., the nGAP programme).

Various modalities are used to provide a significant number of international placement opportunities for exposure for exceptional NRF-funded doctoral students, postdoctoral fellows, and ECRs. A number of existing and new opportunities are being adapted and identified to expand the intent, advance current and revised NRF offerings, and to solicit support and own initiatives from the universities where the students are registered or

postdoctoral fellows and ECRs are based. This includes fostering, upscaling and leveraging partnerships in support of robust, scholarly international exposure.

3. International training opportunities under the GKP programme

3.1. Pre-doctoral programmes

3.1.1. Fulbright Foreign Student Programme (FFSP)

The FFSP in partnership with the NRF supports the Visiting Student Researchers to undertake non-degree doctoral research training for a maximum period of twelve (12) months at a university in the United States of America. Applicable research fields include Science, Engineering and Technology (SET), and Social Sciences and Humanities (SSH). For more information, please visit the FFSP website at <https://za.usembassy.gov/education-culture/fulbright-postgraduate/>.

3.1.2. NRF-MINDS mobility programme

The Mandela Institute for Development Studies (MINDS) in partnership with the NRF is enabling a joint postgraduate scholarship and Exchange programme for Africa.

Through the Exchange programme, NRF-funded students under the NRF-MINDS Scholarship programme may apply for short-term research visits of one (1) to three (3) weeks or three (3) to twelve (12) months at an African-based academic institution. For more information, please visit the MINDS website at <https://minds-africa.org/>.

3.1.3. NRF-Mitacs mobility programme

The NRF and Mitacs have entered into a co-funding partnership in order to make provision for funding, training and networking opportunities for NRF funded doctoral students and postdoctoral fellows. The objective of this partnership is to strengthen international research collaboration between SA and Canadian companies and universities.

NRF-funded doctoral students and postdoctoral fellows may undertake short-term research visits of between twelve (12) to twenty-four (24) weeks at a Canadian-based academic institution. Doctoral students and postdoctoral fellows must be pursuing their research in a field of study linked to one of the Mitacs broad thematic research areas. The broad thematic research areas are:

- Advanced Computing;
- Achieving Net Zero; and
- Global Health

For more information, please visit the Mitacs website at <https://www.mitacs.ca/en>.

3.1.4. NRF-DAAD mobility programme

Students receiving NRF-DAAD in-country master's and doctoral funding may apply for a short-term research fellowship for research training spanning three (3) to six (6) months in Germany. Further information of these short-term research fellowships can be obtained from daad@wits.ac.za. Students receiving NRF-DAAD in-country funding may also apply to participate in one (1) of six (6) interdisciplinary summer schools in Germany. For more information, please visit the DAAD website at <https://www.daad.org.za/en/study-research-in-south-africa/daad-nrf/>.

3.1.5. DAAD Research Mobility Grants programme

The primary aim of this programme is to promote research projects within the context of doctoral programmes through provision of mobility grants. Excellently qualified doctoral candidates under specified disciplines may apply for funding to advance their research projects at a state or state-recognised institution of higher education in Germany or a non-university research institute, which is carried out in coordination with an academic adviser in Germany.

The mobility grant may span up to twelve (12) months, but the actual duration will be decided upon by the selection committee and is dependent on the research project and applicant's work schedule. For more information, please visit the DAAD website at https://www.daad.org.za/en/find-funding/scholarship-database/?type=a&origin=1&subjectgroup=0&q=one-year&status=0&page=0&onlydaad=1&language=en&id=0&pg=1&detail_to_show=57140602

3.1.6. Young Scientists Summer Programme (YSSP)

The Republic of South Africa, through the NRF became a national member organisation (NMO) of the International Institute of Applied Science (IIASA) since 2007 until to date. IIASA offers diverse opportunities to students from the NMO countries such as the annual YSSP.

Through the YSSP, doctoral students undertaking their research using systems analysis methodology will advance on their research projects under the supervision of an IIASA-linked researcher for the duration of three (3) months (July – August) at IIASA in Vienna, Austria. For more information, please visit IIASA website at https://iiasa.ac.at/web/home/education/yssp/Young_Scientists_Summer_Program.html

3.2. Programmes for Postdoctoral fellows and Early Career Researchers

3.2.1. Japan Society for the Promotion of Science (JSPS)

The JSPS hosts annual HOPE meetings wherein the ECRs from selected countries within the Asia-Pacific and African regions are afforded an opportunity to engage in interdisciplinary discussions with Nobel laureates and other distinguished scientists pioneering the frontiers of knowledge. Held over a period of one (1) week (annually around March) in Japan, the HOPE meetings also present a great platform for creation of collegial networks with peers from the participating countries. For more information, please visit the JSPS website at <https://www.jsps.go.jp/english/e-hope/index.html>

3.2.2. Global Young Scientists Summit (GYSS)

The NRF in Singapore hosts the annual GYSS with the aim of providing doctoral students and postdoctoral fellows an opportunity to interact and learn from Nobel Laureates and world-renowned scientists as they discuss global issues relating to how science and technology can pave the way towards a brighter future. Up to twenty (20) speakers are scheduled to speak over a five (5) day period, with candidates being able to engage in thought-provoking plenary lectures and panel discussions.

Candidates may either choose to be a participant or a viewer in the programme which is held over a period of five (5) days. All attendees (i.e., viewers and participants) would have access to the live plenary lectures, panel discussions, Q&A sessions, expo exhibition, and networking platforms. In addition, participants will also participate in informal sessions with their pre-selected speaker and showcase highlights of their research through a short video and stand a chance to win attractive prizes. For more information, please visit the GYSS website at <https://www.nrf.gov.sg/gyss/home>

3.2.3. NRF-Mitacs mobility programme

In addition to the doctoral related mobility opportunities stated in section 3.1.3, NRF-funded postdoctoral fellows may undertake short-term research visits of between twelve (12) to twenty-four (24) weeks at a Canadian-based academic institution. Postdoc fellows must be pursuing their research in a field of study linked to one of the Mitacs broad thematic research areas. The broad thematic research areas are:

- Advanced Computing;
- Achieving Net Zero; and
- Global Health

For more information, please visit the Mitacs website at <https://www.mitacs.ca/en>

3.2.4. International Centre for Genetic Engineering and Biotechnology (ICGEB)

South African women postdoctoral fellows undertaking research in Biotechnology and attached to the ICGEB in Cape Town will have an opportunity to spend between three (3) to six (6) months abroad at the ICGEB laboratories in Trieste, Italy or New Delhi, India. Further information on these short-term research fellowships may be accessed at: <https://www.icgeb.org/activities/fellowship/>

4. Eligibility criteria

4.1.1. Eligibility criteria for doctoral students and postdoctoral fellows

To be eligible, individuals must:

- Be a South African citizen or permanent resident³, (however, this requirement is not applicable to students funded under the NRF-MINDS scholarship programme⁴ and applicants for the DAAD Research Mobility Grants programme⁵);
- Be a currently NRF-funded doctoral student or postdoctoral fellow;
- Be regarded as an exceptional scholar with excellent potential, supported by evidence of academic achievement;
- Ensure that any visit undertaken in the final year of the scholarship/grant must be completed at least six (6) months prior to the end of NRF funding;
- Provide a letter of support from the supervisor or invitation from the international host researcher; and
- Have a research plan developed for the time abroad which is signed by the South African supervisor and international host supervisor.

4.1.2. Eligibility criteria for supervisors

To be eligible to participate in the GKP programmes, supervisors must:

- Be in a full-time faculty position at a university with recognised international reputation in teaching and research, or in a formal association with an industry partner or research facility associated with the discipline of exposure of the incumbent; and
- Be eligible to supervise graduate students.

³ At the time of application, only persons with a valid South African ID number will be considered as a South African Permanent Resident, and not those in the process of applying for permanent residency. The latter will be considered as international candidates.

⁴ Doctoral students applying for the NRF-MINDS mobility programme will need to demonstrate leadership ability as an additional requirement.

⁵ It should be noted that the DAAD Research Mobility Grants programme is for mobility purposes for conducting research up to one-year and is different from the NRF-DAAD mobility programme.

5. Role of the NRF

The NRF's responsibility will be informed by the bilateral and multilateral agreements established with international partners. In most cases the NRF will bear primary responsibility for broadcasting of calls for application opened by international partners, monitoring of the GKP programme in close collaboration with universities, as well as providing a platform for GKP opportunities, through inter alia, joint review and selection processes. In addition, the NRF will use its current funding opportunities to support components of the GKP programme.

The NRF, in consultation with the funding partner, may adjust postgraduate scholarships of the NRF-funded students accordingly in case of students' successful application for some of the mobility programmes listed above.

6. Role of international partners

The role of international partners will be informed by the bilateral and multilateral agreements established, but may include, inter alia:

- The co-funding of programmes under the GKP programme;
- Opening and management of calls for applications, including the screening, reviewing and selection processes;
- Sending feedback to applicants on the outcomes of their applications; and
- Work jointly with the NRF to improve on the aspects of the GKP programme based on the monitoring and evaluation exercise.

7. Role of the International Host Supervisor/Host Institution

The host supervisor/host institution will be required to meet the following requirements:

- Provide or contribute to research running costs, i.e., costs that can reasonably be expected to accrue during the course of the research period, in order for the doctoral students, postdoctoral fellows or ECRs to access research infrastructure, library facilities, connectivity and office space;
- Assist in making housing arrangements for the visiting research scholar. These arrangements must be finalised prior to the scholar's arrival;
- Assist with reasonable travel arrangements;
- Provide a report to the funding partners on the accomplishment or impact of the visit within three (3) months following the completion of the visit;
- Advise on immigration requirements as appropriate; and
- In the case of a joint doctoral degree, the research parties will be required to develop a Memorandum of Agreement, i.e., between the international higher education

institution (HEI) and the partner university in South Africa, in respect of awarding joint degrees.

8. Application and selection process

Applications must be submitted through the international partner's online portal for specific programmes (e.g., FFSP, YSSP, etc.). With specific programmes, the reviewing and selection of applications will be conducted jointly by the international partner and the NRF. All applications will be considered in the context of contributions by the home universities, and the robustness of the applications.

9. Monitoring and Evaluation

Monitoring and evaluation of the GKP programme will be fundamental to track its performance and ensure that the objectives of the programme are met. An annual tracking survey will be used to assess the short-term outcomes of the programme. However, the survey builds on the development of a monitoring and evaluation framework for the programme, adopting a theory of change approach and will allow the NRF to track the long-term impact of the programme for beneficiaries with respect to:

- Quality of research training and skills;
- Career movements;
- International mobility benefit throughout their career; and
- Local and international institutional support throughout the training process.

10. Contact details

For pre-doctoral related enquiries, please contact:

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