

Contents

African Coelacanth Ecosystem Programme (ACEP)	2
African Origins Platform (AOP) Strategy.....	2
Bioinformatics and Functional Genomics.....	2
Blue Skies Research Programme.....	2
Centres of Excellence (CoE).....	2
Collaborative Postgraduate Training.....	2
Community Engagement Programme	3
Competitive Programme for Rated Researchers (CPRR).....	3
Competitive Support for Unrated Researchers (CSUR).....	3
Education Research in South Africa	3
Energy Research Programme (ERP)	3
Equipment-related Travel and Training Grants	4
Global Change, Society and Sustainability Research Programme (GCSSRP).....	4
Human Capital Development for Multi-Wavelength Astronomy	4
Incentive Funding for Rated Researchers (IFRR).....	4
Indigenous Knowledge Systems (IKS)	4
International Research Grants.....	5
Knowledge Interchange and Collaboration (KIC).....	5
Nanotechnology Flagships Project (NFP) for Emerging Researchers.....	5
Professional Development Programme (PDP).....	5
Research Career Advancement Fellowships	5
Research Infrastructure Support Programmes (RISP).....	6
Research and Technology Fund (RTF).....	6
Sabbatical Grants for Completion of Doctoral Degrees.....	6
South African National Antarctic Programme (SANAP).....	7
South African Research Chairs Initiative (SARChI)	7
Thuthuka Funding Instrument.....	7

Instrument-specific Eligibility Criteria

The following is an overview of the criteria for research grants in the various funding instruments offered by the NRF (excluding Student Support). The proposed work must constitute research as defined by the NRF and be aligned with the strategy of the relevant funding instrument. Refer to the relevant framework and guidelines at www.nrf.ac.za for more information.

African Coelacanth Ecosystem Programme (ACEP)

The African Coelacanth Ecosystem Programme (ACEP) is a research platform that aims to provide access to research infrastructure (e.g. ship's time, remote operated vehicles, dive teams etc.) and associated funding for the research community to undertake research along the east coast of South Africa.

African Origins Platform (AOP) Strategy

The African Origins Platform (AOP) Strategy provides direction for a holistic approach towards the development of palaeo-sciences and related disciplines. This strategy addresses issues of public engagement, human resources, challenges faced by universities and museums as research institutions and repositories for collections, and the legal landscape and tourism development in palaeo-sciences.

Bioinformatics and Functional Genomics

The Bioinformatics and Functional Genomics (BFG) funding instrument is a DST contract-funded instrument whose aim is to support bioinformatics applications in biotechnology projects in line with national priorities as set out in the South African Biotechnology Strategy and the Ten Year Innovation Plan. The instrument provides support on an open and competitive basis for both research grants and bursaries at post-graduate level.

Blue Skies Research Programme

The Blue Skies Research Programme is a highly competitive funding instrument that aims to bring about new and unpredictable scientific/technological/scholarly discoveries. It provides the space for novel fundamental inquiry that can be described as multi -dimensional, self-initiated and curiosity-driven, necessitating high investment risks, addressing new phenomena, and pushing forward the frontiers of knowledge. Blue Skies research is associated with fundamental and basic research programmes and should be considered as a multi -dimensional concept that can be defined from various perspectives, namely that of the researcher, the funding agency, the object of the research, the research approach, and/or the contribution to the knowledge base.

Centres of Excellence (CoE)

The applicant must be an established researcher and hold a Doctoral degree, and must have a strong network of collaborators and fellow researchers working in similar and different, but related research fields. The network must span department s, schools and institutions and have an excellent and extended track record of research outputs.

Collaborative Postgraduate Training

The objectives set out in the South African Human Resource Development Strategy (2012 – 2030) on developing and increasing the number of skilled personnel in science, engineering and technology, are a clear indication of the commitment the country has towards research, development and innovation in science and technology. The supporting platforms for the realisation of these HRD objectives as stipulated in the programme specific DST strategies require three critical areas for successful implementation: • Human capital: the development of appropriate expertise and skills will receive 7 8 priority attention, as without them all existing and envisaged programmes and infrastructure will be unsuccessful; • Infrastructure: appropriate infrastructure is the cornerstone of an effective training programme, enabling technology

transfer and human capacity development initiatives; and • International partnerships: strategic partnerships with foreign partners are necessary for tangible and intangible technology transfer and a viable and sustainable human capital development programme. The postgraduate training programmes should ideally be inter-university partnerships and/or public -private partnerships with government, industry and universities; all working together toward a common objective to produce and sustain a growing stream of well- rounded postgraduates to address national needs

Community Engagement Programme

The Community Engagement Programme is a competitive funding instrument providing the space for research that contributes both to knowledge production within the ambit of community engagement (where 'community' is defined in its broadest sense), as well as to research on the processes and dynamics of engagement from the perspective of the higher education sector. This funding instrument is aimed at supporting and providing enabling conditions for higher education institutions to tackle some of the philosophical and conceptual challenges associated with the dynamics of community engagement and social responsiveness as a field of research inquiry.

Competitive Programme for Rated Researchers (CPRR)

The Competitive Programme for Rated Researchers is a discipline-based funding instrument that supports mainly basic research as the foundation of knowledge production in the Humanities, Social and Natural Sciences. As a competitive funding instrument, the main eligibility criteria are: the current NRF rating of the principal applicant; and the scientific merit of the research proposal.

Competitive Support for Unrated Researchers (CSUR)

The aim of this funding instrument is to provide research support to researchers, working in any research field, who do not, for a variety of reasons, hold a current NRF rating and who are not participating in any of the NRF capacity development funding instruments. The strategic objectives of CSUR are to: strengthen the nation's research base; increase the nation's research outputs; and support the training of postgraduate students

Education Research in South Africa

The Call for funding for Education Research in South Africa seeks research proposals that adhere to the following entry-level hurdles: The research must address: the overarching theme of 'Teaching and learning interactions that shape the qualitative outcomes of education' at all levels of the education and training system; national priorities in South Africa (a strong indication must be provided); and systemic implications (either through large -scale empirical research or meta -analyses of past/existing small-scale research projects). Only proposals submitted by consortia will be accepted. Consortia members must reflect the following minimum conditions: multi-institutional collaboration among at least three different institutions in South Africa, with at least one representing a rural-based institution; and multi-disciplinary backgrounds

Energy Research Programme (ERP)

The DST has developed and has started the roll-out of a collaborative model that recognises and supports the distribution of research capacity and expertise for a defined focus area, across more than one institution and/or divisions of an institution. The various institutions are assigned areas of focus and responsibility within the broader defined focus area, preferably within their individual areas of pre -existing competencies, capacities, expertise and specialisation. One institution is selected as the coordinating point (the Hub) and the rest are the Spokes. A hub -and-spokes cluster may have any number of spokes and these may be added as the need arises, for example if new sub focus areas not yet catered for are realized. These hub and-spokes are mainly expected to focus on applied research with a goal of ensuring that South Africa stays abreast with regard to the latest technologies and research in a specific focus area. The hub-and-spokes are also critical to realising the objectives of human capital development. The first hub-and-spokes cluster has been established to contribute to the key strategic area of Energy Security with the Centre for Renewable

and Sustainable Energy Studies at the University of Stellenbosch serving as the hub with three spokes focussing on wind, Solar thermal and solar photo-voltaic renewable energy respectively, located at five paired universities which includes Nelson Mandela Metropolitan University, University of Cape Town, Stellenbosch University, Fort Hare and University of Pretoria.

Equipment-related Travel and Training Grants

The NRF, through mobility grants, makes funds available for both national and international travel in order to support researchers who require access to equipment that is not available either regionally and/or nationally. The mobility grants are divided into two portfolios of opportunities, namely Equipment-related Travel Grants and Equipment-related Training Grants. This funding is available to researchers based at institutions as defined in Table 3 in order to support: the larger research community to access state-of-the-art equipment that is not readily available regionally and/or nationally; researchers and postgraduate students in South Africa to access global research infrastructure such as synchrotron radiation facilities; research institutions hosting training workshops on the use of specialised equipment that is acquired through NRF equipment grants; the larger research community to access training workshops on the use of specialised equipment that is acquired through NRF equipment grants; and the larger research community to access training workshops on the use of specialised equipment, not necessarily obtained through NRF grants, but clearly feeder equipment that is complementary to that acquired through NRF equipment grants. The NRF encourages the local design and development of the next generation of research equipment in South Africa. Therefore, institutions are encouraged to apply for support for access to training on the design, procurement, construction, testing and certification of novel research equipment.

Global Change, Society and Sustainability Research Programme (GCSSRP)

The Global Change Research Plan (GCRP) is one of the five Grand Challenges underpinning the '10-Year Innovation Plan' of the Department of Science and Technology (DST). More information on the Global Change Grand Challenge, the associated Research Plan and the implementation architecture can be found at <http://www.globalchange.grandchallengeonline.org/>. The Global Change, Society and Sustainability Research Programme is a long-term large-scale structured and coordinated research funding instrument that will be implemented to address the identified fundamental research questions and provide research-based evidence required for socio-economic development, sustainability and social cohesion. This funding instrument will also offer a unique opportunity to bring together a variety of players in the area of social-ecological research, enhance their capacity and capability to respond to climate and environmental change, and in effect encourage and enhance interdisciplinary approaches to problem-solving.

Human Capital Development for Multi-Wavelength Astronomy

Any researcher at a South African higher education institution or national research facility can apply for funds from this funding instrument, provided that they are working under the rubric of multi-wavelength astronomy, including optical and gamma-ray astronomy and the supporting theory. Researchers who are eligible for funding from the SKA/KAT are required to use that funding instrument for human capital development, as the Mutli-Wavelength Astronomy funding instrument is not intended to support radio astronomy.

Incentive Funding for Rated Researchers (IFRR)

The Incentive Funding for Rated Researchers funding instrument was created with the aim of incentivising excellent research. The collateral objectives of the funding instrument include encouraging researchers to: subject themselves for rating; maintain their ratings; and attain ever higher ratings until they reach the top rating (A1) (Refer to rating categories at <http://www.nrf.ac.za/projects.php?pid=129>).

Indigenous Knowledge Systems (IKS)

Applicants must respond to one of the following funding instruments: IKS and Bio-economy (African Traditional Medicine; Food Security; or Cosmetics); IKS Epistemology (Ubuntu and Cosmology; or

Taxonomies, Pedagogies, Methodologies); IKS and Climate Change; IKS and Energy; IKS Practices of the Khoi, Nama, Griqua and San communities; and/or novel and creative thinking that will shift the boundaries of IKS knowledge production and address national priorities in South Africa. Joint and active participation and equal ownership among academic scientists and IKS holders/practitioners/community members must be evident in the application (either as the principal investigator or co-investigator).

International Research Grants

The International Research Grants (IRG) support international research collaboration between two or more qualified scholars from at least two countries, where the Principal Investigator brings different and complementary perspectives, knowledge, and/or skills to the project. In addition, an applicant for an International Research Grant must be engaged in research with a collaborator in a country that is a signatory to a binational or bilateral agreement between the NRF and a funding agency in that country.

Knowledge Interchange and Collaboration (KIC)

The Knowledge Interchange and Collaboration funding instrument offers researchers an opportunity to apply for funding for local or international travel; support grants to host an event such as a conference or symposium; and mobility grants to support local or international travel for research visits. The guidelines for funding within the KIC instrument are available on the NRF website, usually published twice per annum.

Nanotechnology Flagships Project (NFP) for Emerging Researchers

This funding instrument, which is in its third funding cycle, will be awarding development grants to early career researchers in the field of Nanoscience and Nanotechnology for a three-year period. The primary focus of research projects supported by this funding instrument is to demonstrate the benefits of Nanotechnology and its impact on some of the key challenges facing South Africa. The NFP portfolio spans the spectrum of the national research agenda by focusing on the following key priority areas as identified in the National Nanotechnology Strategy (NNS): Energy Security; Improved Healthcare; Water Purification; Mining and Minerals; and Advanced Materials and Manufacturing. In addition, the NFP addresses the strategic imperatives set forth in the NNS and other national strategies such as the National Research and Development Strategy of 2002. The NFP is therefore geared towards achieving the following objectives: Ensuring the development of human resource capacity that focuses on historically disadvantaged institutions (HDIs), women and persons with disabilities; Accelerating national efforts in order to build excellence in research and development capacity; Attracting and retaining young scientists and professionals of the highest calibre; Supporting young scientists and professionals in basic and applied research; Promoting and stimulating innovation in the form of proof of concept and/or patents; and Creating transparency, public awareness and acceptance of Nanotechnology.

Professional Development Programme (PDP)

The Professional Development Programme is aimed at creating an opportunity for research institutions such as science councils, National Research Facilities and museums to attract, retain and train young scientists and professionals within their strategic research programmes and projects. Candidates will be exposed to a work preparation programme that will allow them to obtain and further develop research experience and skills by working and contributing directly towards their host's research project/s. Candidates are required to be working towards obtaining either a Doctoral qualification or Postdoctoral research experience within their research field and contributing to the NSI.

Research Career Advancement Fellowships

Research Career Advancement Fellowships are aimed at providing support for the training of individuals for research leadership in all areas of Science, Engineering, Technology and Mathematical Sciences (STEM) at public universities. These Fellowships may be held in partnership with a public research institution such as a science council, a National Research Facility or an academic health complex. The Fellowships are not pre-allocated to institutions, and candidates must apply individually to the NRF. These applications must

bear the endorsement of the university Deputy Vice - Chancellor (DVC) for research, or equivalent. There is no restriction on the number of Research Career Advancement Fellowships that may be awarded to a single institution. The Fellows must undertake research that is aligned with national and institutional research priorities. They are expected to dedicate at least 80% of their time to conducting research, and supervising and mentoring postgraduate students. Successful candidates can receive support for full-time research for a period of five years. The objectives of the Research Career Advancement Fellowships are to: Provide career a career path for Postdoctoral researchers to pursue a career in research; Create the opportunity for these emerging researchers to be mentored and groomed for research leadership and academic positions; Create the opportunity for senior Postdoctoral researchers to strengthen their research track record in their chosen research area and to establish themselves as independent researchers; Create the opportunity for these emerging researchers to gain experience in postgraduate training; Effect a transformation in the demographic composition of established researchers in South Africa, with respect to race, gender and persons with disabilities; and Develop a cohort of potential candidates for the South African Research Chairs Initiative (SARChI).

Research Infrastructure Support Programmes (RISP)

The purpose of the Research Infrastructure Support Programme is to support the acquisition, maintenance and development of state -of-the-art research equipment. Support through the National Equipment Programme (NEP) and the National Nanotechnology Equipment Programme (NNEP) is intended for researchers from South African higher education institutions, national research institutions such as museums, science councils, National Research Facilities, and other government-funded laboratories, including research hospitals. The main criteria for consideration for funding applications are as follows: Scientific merit of the proposed research; Human resource capacity development; Regional and national collaboration with other institutions and industry; Effective sustainable utilisation of the equipment; Appropriate maintenance of the investment; and Appropriate training of technical staff for diagnostic, maintenance and application purposes.

Research and Technology Fund (RTF)

The RTF is a fund provided by the Department of Agriculture, Forestry and fisheries (DAFF), managed by the NRF, to fund research and related human capacity development in agriculture, forestry and fisheries. There are two types of funding models, namely: (i) Co-Funding (CoFM) and (ii) Competitive Funding (CompFM). The primary difference between the 2 is that in the case of CoFM, at least one industrial partner should be co -funding project and may define the research topic and focus, whereas in the CompFM, the project may be funded from the RTF alone, but the research topic and focus will be informed by the RTF priorities. An RTF project: Must be of a high quality agriculture/forestry/fisheries and/or technology research/systems development, whose outputs should make a significant contribution towards improving the industrial partner's competitive edge/agricultural entity's social stability. Must have clearly defined scientific, and/or technology, and/or appropriate systems outputs. Must lead to development of a prototype (product, process, and technique, methodology) to benefit the industry partners/targeted communities. Must lead to the creation and transfer of new knowledge into a process or product (prototype), or the transfer of existing knowledge into a new process or product to benefit the needs of small-holder farmers. Must also provide support for professional development and small-holder technology needs.

Sabbatical Grants for Completion of Doctoral Degrees

The funding instrument is a special intervention aimed at addressing the decline in the number of full-time university academic staff with Doctoral degrees and the inadequate supervisory capacity that currently characterises the South African academic landscape. As a direct response it seeks to accelerate the training of Doctoral candidates in order to improve the qualifications of employed academics and enhance their research and supervisory capacity.

South African National Antarctic Programme (SANAP)

This programme supports research in the Southern Ocean including, the Southern Ocean Islands (Marion Island, Prince Edward Island and Gough Island) and Antarctica. The funding instrument supports research in the fields of Earth Sciences, Engineering Sciences, Life Sciences, Oceanographic Sciences, Physical Sciences, and Social Sciences, Law and Humanities.

South African Research Chairs Initiative (SARChI)

The South African Research Chairs Initiative is a strategic intervention of the South African (SA) government designed to attract and retain excellence in research and innovation at SA universities. In particular, it is aimed at increasing scientific research capacity by developing human capacity and stimulating the generation of new knowledge. It is also intended to support the realisation of SA's transformation into a knowledge economy in which the generation of knowledge translates into socio-economic benefits. In order to apply for a Research Chair, an applicant must: be an established researcher; hold a PhD or an equivalent research qualification; have a research track record that is excellent and sustained, and clearly on an upward trajectory for more than four years; have a track record of supervising and mentoring postgraduate students; have a track record of being able to obtain external funding; and reside on a full-time basis in SA for the duration of the Research Chair award.

Thuthuka Funding Instrument

The Thuthuka funding instrument is central to the NRF's human capacity development strategy for advancing the equity and redress agenda within the research sphere. Operating within the ever-evolving higher education landscape, Thuthuka aims to develop human capital and to improve research capabilities of designated researchers (black [African, Indian, Coloured], female or persons with disabilities) with the ultimate aim of redressing historical imbalances. This is done in partnership with publicly funded higher education institutions, science councils and other publicly funded research institutions. Thuthuka is managed in three difference funding tracks, targeting different research capacity development needs: PhD-track for applicants who intend to obtain their PhD within the funding period; Post-PhD track for applicants who intend to become established researchers by strengthening their research capabilities; and NRF Rating track for applicants who would like to apply for NRF rating within the funding period.