

## Instruments in the Department of Science & Technology's Human Capital Portfolio

### 1. DST Research Professional Development Programme

The Research Professional Development Programme was launched in the 2004/05 financial year. This programme is designed to enable outstanding Masters Graduates, currently engaged in doctoral studies, and doctoral graduates to obtain and expand on their experience of research. This could be through research work done at a Science Council, a University or at a R&D laboratory in industry.

Objectives of the programme include:

- Addressing challenges expounded in human capital with the first focus on Science Councils;
- Leveraging innovation and research in Science Councils and the implementation of science and technology related skills development;
- Enabling recently qualified doctoral graduates and those currently engaged in doctoral studies in Science Councils to increase their experience of research in a Science Council environment, thereby strengthening their CV's and improving their prospects of permanent employment in the science and technology system;
- Attracting and retaining young scientists of the highest calibre in order to complement senior researchers' influence on current science and technology research system; and
- Supporting young scientists and professionals in basic and applied research, and promoting innovation

Outstanding Master's and PhD students are eligible for this programme. In selecting candidates for this fellowship, we try, as far as possible, to ensure that those applicants that are awarded, reflect the broader demographic and gender composition of South Africa. The DST Research Professional Development Programme is currently being implemented at four Science Councils, namely the CSIR, Mintek, ARC and the MRC.

According to the results of a 2005 audit of the DST Research Professional Programme, the majority of candidates are exposed to national and international workshops and conferences, the opportunity to have their work published as well as some form of industrial exposure.

For further information, visit the websites of the relevant Science Councils:

1. CSIR: [www.csir.co.za](http://www.csir.co.za) or contact them at (012) 841-2989/4522
2. Mintek: [www.mintek.co.za](http://www.mintek.co.za) or contact them at (011) 709 4485
3. ARC: [www.arc.agric.za](http://www.arc.agric.za) or contact them at (012) 427-9700
4. MRC: [www.mrc.ac.za](http://www.mrc.ac.za) or contact them at (012) 938-0436

## 2. Innovative Post-Doctoral Fellowship

This fellowship is designed to enable outstanding doctoral graduates to obtain further experience of research and innovation at higher education institutions.

Outstanding postdoctoral graduates are eligible and encouraged to apply for this fellowship. In selecting candidates, we try, as far as possible, to ensure that those applicants that are awarded, reflect the broader demographic and gender composition of South Africa.

Objectives of the programme include:

- To leverage innovation in universities to implement the development of science and related skills;
- To expand transformation initiatives through equity and career growth opportunities for designated groups; and
- To enable young scientists and professionals to gain world class experience in strategic and applied research
- Attracting young scientists and professionals to complement senior researchers' influence on innovation through research

Currently the fields of study of our fellowship holders include the health sciences, chemistry, biotechnology, animal and vet sciences, plant science, earth science, microbiology and engineering

The National Research Foundation (NRF) implements this programme on behalf of the Department of Science and Technology. For further information regarding the closing date for applications, please visit the NRF website at: [www.nrf.ac.za](http://www.nrf.ac.za) or contact them at (012) 481-4202

### 3. Centres of Excellence (COE)

The COE initiative articulates the call made in the SA Research and Development Strategy to create 'centres and networks' of excellence in all branches of science and technology.

A Centre of Excellence can be described as a physical or virtual centre of research. At present all our COEs are hosted at South African universities. The aim of the DST COEs is to concentrate existing capacity and resources to enable researchers to collaborate across disciplines and institutions on long-term projects that are locally relevant and internationally competitive in order to enhance the pursuit of research excellence and capacity development.

It is expected that Centre of Excellence will impact upon the science system in the following manner:

- Growth of the research base;
- Leverage of existing resource base through networking;
- Inspiration of existing capacity; and
- Attraction of new capacity

There are currently seven DST COEs, namely:

Name of COE, host university and province
1. Invasion Biology: University of Stellenbosch (Western Cape)
2. SA Centre for Epidemiological Modeling & Analysis: University of Stellenbosch (Western Cape)
3. Biomedical TB Research: University of Stellenbosch and WITS (Western Cape and Gauteng)
4. Catalysis: University of Cape Town (Western Cape)
5. Birds as Keys to Biodiversity Conservation: University of Cape Town (Western Cape)
6. Tree Health Biotechnology: University of Pretoria (Gauteng)
7. Strong Materials: WITS (Gauteng)

This programme is implemented by the National Research Foundation on behalf of the Department of Science and Technology

For further information regarding this initiative please visit the NRF website: [www.nrf.ac.za](http://www.nrf.ac.za) or contact the COE Manager at (012) 481-4104

#### 4. South African Research Chairs Initiative (SARCHI)

The establishment of the Research Chairs initiative represents a human resource development intervention of the SA Government, led by the DST and implemented by the NRF. A Research Chair refers to a facility situated at a university and sponsored by stakeholders.

The aim of this initiative is to expand the scientific research base of South Africa such that it supports the implementation of the National R&D Strategy.

Some of the objectives of the Research Chairs initiative include:

- To strengthen and improve the capacity of HEIs, Science Councils, Musea and Academic Health Complexes to generate and apply new knowledge in order to make South Africa competitive in the international knowledge economy based on existing and potential strengths,
- To create research career pathways for highly skilled, highly quality, young and mid-career researchers that effectively addresses historical racial, gender and age imbalances
- To improve and accelerate the training of highly qualified personnel through research,
- To teach /supervise postgraduate level students and postdoctoral researchers whose learning should be embedded in the field of the research focus;
- To provide a critical locus for the development of excellence in ideas and capacity;
- To promote gender and racial equity in the scientific community

Research Chairs are awarded to publicly funded HEIs after identification of suitable candidates who can hold such chairs in their own right or jointly in collaboration with Science Research Councils, musea or other institutions that conduct research and develop capacity as part of their usual functioning. Research Chair candidates must meet a set of concise eligibility criteria.

Research Chairs will be tenable for 5 years, renewable – eligibility for renewal will be performance linked

Further information and application forms can be found on the NRF website: [www.nrf.ac.za](http://www.nrf.ac.za) or contact them at (012) 481-4104