



National
Research
Foundation

AWARDS 2014



HUMAN PAST

HUMAN FUTURE

Welcome

In simultaneously celebrating exciting new developments in understanding our human ancestry and the prospects for a better future, I am delighted to welcome our esteemed guests at this special NRF Awards ceremony. During this occasion we recognise eminent scholars for the substantial contributions they have made to alter the trajectory of the South African national research landscape.

The quality of research that South Africa offers is becoming so significant that we are able to acknowledge two stalwarts from the medical field for their lifetime contributions this year. We also celebrate the achievements of a science team that has expanded our understanding of human evolution, as well as individual researchers who have influenced the transformation of the national science cohort and research capacity development at South African Higher Education Institutions. A number of A- and P-rated researchers also emerged through the NRF rating system. These researchers have all earned the acclaim of their international peers as being world leaders in their areas of expertise, or for having demonstrated the potential to become future leaders in their respective fields.

My personal congratulations to everyone receiving due acknowledgement this evening for their valuable inputs to the national science landscape.

Albert van Jaarsveld

Chief Executive Officer
11 September 2014



LIFETIME ACHIEVEMENT

This accolade is awarded to individuals considered to have made extraordinary contributions, of international standard and impact, to the development of science in and for South Africa over an extended period of time.



2014 Recipients

Professor Hoosen Coovadia

MatCH Health Systems (Maternal, Adolescent and Child Health)
School of Clinical Medicine, University of the Witwatersrand

Professor Lionel Opie

Hatter Cardiovascular Research Institute
Department of Medicine, University of Cape Town



Previous Recipients

2013 – Professor Tebello Nyokong
2012 – Professor Timothy Noakes
2011 – Professor Malegapuru Makgoba
2010 – Professor Phillip Tobias
2009 – Professor Njabulo Ndebele

2008 – Professor Patricia Berjak
2007 – Dr Mamphela Ramphele
2006 – Dr Bob Brain
2005 – Professor Es’Kia Mphahlele
2004 – Dr Reinhard Arndt



LIFETIME ACHIEVEMENT



Professor Hoosen Coovadia

MatCH Health Systems (Maternal, Adolescent and Child Health)
School of Clinical Medicine, University of the Witwatersrand

A life spent in service of the poor of South Africa while at the same time advancing scientific knowledge for the benefit of humanity, is one worth celebrating. Professor Hoosen Coovadia's work among the country's poorest communities in the field of paediatric HIV/AIDS research, in addition to his leadership in the struggle against apartheid and strong stance on contentious HIV/AIDS issues, has led to his achieving international recognition as a scholar and humanitarian. *The Lancet* has called him "a giant of medicine in South Africa".

Prof. Coovadia holds Honorary Doctorates from the Universities of KwaZulu-Natal, the Witwatersrand, Cape Town, and the previous Durban-Westville; an

MSc from the University of Birmingham in the UK; a FCP from the College of Medicine of South Africa; and MB and BS degrees from the University of Bombay, India.

His career has been extensive, having worked in a variety of positions over the years. In the national and global struggle against the apartheid regime he occupied important leadership positions, and at independence, he participated in the initial planning of a democratic health system appropriate for mothers and children in the country. He is currently Emeritus Professor of Paediatrics and Child Health at the University of KwaZulu-Natal, and remains active as Director of the HIV Management, Maternal, Adolescent

and Child Health (MatCH) Systems at the University of the Witwatersrand. He is also the Chairman of the Board of the UKZN Children's Hospital Trust and a Commissioner for the National Planning Commission for the Presidency of the Republic of South Africa. He has influenced the management of some key disorders of childhood in Africa and has done original research in malnutrition, kidney diseases, and measles, among other infections.

Prof. Coovadia's interest in the field of paediatric HIV/AIDS started in the 1990s as the true extent of the crisis in South Africa became apparent. He concentrated mainly on the problem of mother-to-child transmission of the virus, and his ground-breaking research, particularly on transmission through breastfeeding, has become internationally recognised. As a result of his work, he has received a number of research grants that have enabled him to build a powerful research team at the Nelson R Mandela School of Medicine at UKZN. His research team has extended its work to other areas including tuberculosis and other infectious diseases, particularly in the country's rural areas.

In addition to his research, he is firmly committed to the development of research capacity in

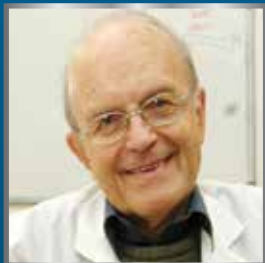
South Africa, having supervised more than 40 postgraduate students and taught extensively in the medical, nursing and allied health professions for more than 20 years. Under his mentorship, a number of his graduates have taken up important positions in the healthcare sector.

Prof. Coovadia has established an enviable track record of publishing. He has written and co-written more than 350 articles in journals such as *The Lancet*, the *Journal of Infectious Diseases*, and the *American Journal of Nephrology* and has also authored and co-authored more than 30 books and book chapters.

Prof. Coovadia has received a number of awards and fellowships in recognition of his work, including the Lifetime Achievement Award from the HIV Congress in India, the Silver Medal for Excellence in Research from the Medical Research Council of South Africa, the Nelson Mandela Award for Health and Human Rights, and the Order of the Star of SA for contributions to democracy and health presented by former President Nelson Mandela. Most recently he received the Scientific Freedom and Responsibility Award from the American Association for the Advancement of Science.



LIFETIME ACHIEVEMENT



Professor Lionel Opie

Hatter Cardiovascular Research Institute
Department of Medicine, University of Cape Town

As one of the foremost researchers in cardiology in South Africa, Professor Lionel Opie has established an enviable international reputation in this medical discipline over a period of more than half a century. He was described as “Africa’s best known heart doctor” in the citation for the Order of Mapungubwe: Silver that he had received from the State President for “excellent contribution to the knowledge of and achievement in the field of cardiology” in 2006.

He obtained his MBChB (1st class Hon) in Medicine from the University of Cape Town in 1955 and completed his DPhil in Physiology at the University of Oxford on a Rhodes Scholarship. He then left for Harvard Medical School to work in the Metabolic

Research Unit at the Brigham Hospital and returned to UCT in 1962 to complete his MD in Biochemistry and, in 1994, his DSc. He subsequently went on a scholarship to further train under two Nobel laureates, Prof. Sir Hans Krebs, who described the Krebs citric acid cycle at Oxford and Prof. Sir Ernst Chain, who co-developed penicillin, at Imperial College of Science and Technology, London. In 1969 he was appointed Consultant in Medicine at the Royal Postgraduate Medical School in London.

He finally returned to UCT Medical School in 1971 to develop the MRC Unit for Ischaemic Heart Disease. During sabbatical periods he was a Visiting Fellow at Oxford’s Merton College and the Department of

Biochemistry, Oxford University, and later Visiting Professor of Medicine at Stanford University, California. In 1998 he co-founded the Hatter Cardiovascular Research Institute at UCT. He is currently Senior Scholar and Professor Emeritus of Medicine at UCT.

Prof. Opie’s major interest has been in the field of cardiology, in relation to the application of metabolic therapy to heart disease, starting with three early *Nature* articles that led to a major recent clinical study in conjunction with Tufts University, Boston, and published in the *Journal of the American Heart Association*, on the benefits of glucose-insulin-potassium (GIK) infusions given in the ambulance to patients with very early heart attacks. In the Hatter Institute, the major novel work conducted during his Directorship (1997-2010), and inspired by Professor Sandrine Lecour, has uncovered the Survival Activating Factor Enhancing (SAFE) path that gives both molecular and metabolic cardio protection that has benefitted the treatment of heart attack victims. Much of his other research concerned acute heart failure, cardiovascular drug therapy and hypertension.

Prof. Opie has published more than 500 scientific articles during his career, which have appeared in a number of journals including *Nature*, the *New England Journal of Medicine* and *The Lancet*. He has also published 46 books on heart disease and made 174 contributions to other books. His papers have been cited more than 14 000 times and he maintains an H-index of 65. His book, “*Heart Physiology from Cell to Circulation*”, won the UCT Book Award in 1987 while “*Living Longer, Living Better*” won the Medical Journalists’ First Prize. His book “*Drugs for the Heart*” that has recently appeared in its 8th edition, has become a standard reference book.

Prof. Opie is the recipient of numerous prestigious awards such as the Silver Medal from the International Society of Heart Research, the Wellcome Gold Medal for “Research of Specific Importance to South Africa”, and Honorary DSc degrees from the Universities of Stellenbosch and Copenhagen. He is a Fellow of the Royal Society of South Africa, the Royal College of Physicians (London) and the American Heart Association, and a Life Fellow of UCT.



◀◀◀ SPECIAL AWARDS

Champion of Research Capacity Development at South African Higher Education Institutions

This award acknowledges individuals for their contributions to the transformation of South Africa's community and landscape. The aim of this award is to encourage and promote this activity across the South African research community.



2014 Recipient

Professor Stella Nkomo

Department of Human Resource Management
University of Pretoria

Previous Recipients

2013 - Professor Neil Coville
2012 - Professor Kelly Chibale
2011 - Professor Yusuf Waghid
2010 - Professor Alison Lewis
2009 - Professor Tebello Nyokong



Transformation of the Science Cohort

This award recognises individuals for outstanding efforts to advance their career in science, and for achieving world-class research performance, despite considerable equity challenges.



2014 Recipient

Professor Fazal Mahomed

Centre of Excellence in Mathematical and Statistical Sciences
University of the Witwatersrand

Previous Recipients

2013 – Professor Maano Ramutsindela
2012 – Professor Anusuya Chinsamy-Turan
2011 – Professor Bongani Mayosi
2010 – Professor Shabir Madhi
2009 – Professor Thokozani Majozi
2008 – Professor Phuti Ngoepe
2007 – Professor Mokgethi Motlhabi



Science Team

In recognition of the contributions, creativity and achievements of a science team towards extending the boundaries of scientific research in Africa, and for the role they played in raising South Africa's international stature as a world-class research destination.



2014 Recipient

**Professor Lee Berger and
the Rising Star Expedition Team**
Institute for Human Evolution
University of the Witwatersrand

Previous Recipients

2012 – SKA Project Team South Africa



ABOUT THE NRF RATING SYSTEM

The NRF's Research and Innovation Support and Advancement business unit is responsible for investing in knowledge, people and infrastructure, and the rating system is a key driver in building a globally competitive science system in South Africa. It is a valuable tool for benchmarking the quality of the country's researchers against the best in the world. NRF ratings are allocated based on a researcher's recent research outputs and impact as perceived by local and international peer reviewers and the system encourages researchers to publish high quality outputs in high impact journals/outlets.

The evaluation and rating system is a mechanism to nurture scholarship and grow the country's research capacity. Its origins were based on the need to create a mechanism to ensure that the training of the next generation of researchers (i.e. postgraduate students) was entrusted to capable academics. It was also intended to be a mechanism for the recognition of the achievements of researchers and, by way of funding, to assist them to maintain levels of research excellence.

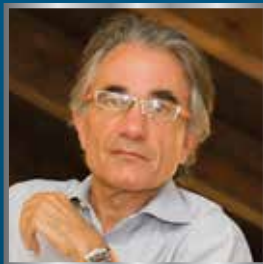
The rating of individual researchers identifies researchers who count as leaders in their fields of expertise and gives recognition to those who constantly produce high quality research outputs. Several South African universities use the outcomes of the NRF evaluation and rating process to position themselves as research-intensive institutions while others provide incentives for their staff members to acquire and maintain a rating, giving special recognition to top-rated researchers.

With the current number of NRF rated researchers at 2 959, we have exceeded our target set for Vision 2015. At the same time we have seen considerable growth in the numbers of scholars from the social sciences, humanities and law participating in the programme – now accounting for 33% of all rated researchers.



◀◀◀ A-RATED RESEARCHERS

Acquiring an NRF rating generates considerable acknowledgement and respect for the individual researchers as well as their institutions. A-rated researchers are unequivocally recognised by their peers as leading international scholars in their respective fields, for the high quality and impact of recent research outputs.



Professor Fernando Albericio
School of Chemistry and Physics
University of KwaZulu-Natal

Professor Richard Haynes
Centre of Excellence for Pharmaceutical Sciences
North-West University



Professor Cornie van der Merwe
Department of Private Law
Stellenbosch University



Professor Wentzel van Huyssteen
Faculty of Theology
Stellenbosch University



Professor Brenda Wingfield
Department of Genetics
University of Pretoria



Professor Michael Wingfield
Forestry and Agricultural Biotechnology Institute
University of Pretoria



Professor Robin Wood
Desmond Tutu HIV Centre
University of Cape Town

◀◀◀ P-RATED RESEARCHERS

A P-rating is assigned to researchers (normally under 35 years of age), who have held a doctorate or equivalent qualification for less than five years at the time of application. These researchers are considered likely to become future international leaders in their respective fields, on the basis of exceptional potential demonstrated in research performance and output during doctoral and/or early post-doctoral careers.



Dr Jonah Choiniere

Bernard Price Institute for Palaeontological Research
University of the Witwatersrand

Dr Christo Venter

Centre for Space Research
North-West University



P-RATED RESEARCHERS ALSO RECEIVE THE ELSEVIER YOUNG SCIENTIST AWARD.





The National Research Foundation acknowledges the support of the following sponsors:



For The Science Team Award and Cocktail Event



For The P-Rated Researchers and The Gifts