

Media Release

Embargo: 21h00, 27 June 2012

Winners of the 2012/13 NSTF-BHP Billiton Awards for research and innovation

Outstanding contributions to science, engineering, technology and innovation (SETI) were acknowledged at the NSTF-BHP Billiton Awards gala dinner (the 15th annual event of this kind) held in Gauteng on 27 June 2013. The awards were presented by Minister in the Presidency, Trevor Manuel, on behalf of the Minister of Science and Technology, Derek Hanekom, who was unable to attend the event.

According to the chair of the selection panel, Denis Hunt (Business Sector representative on the NSTF Executive Committee), the 15th awards event drew a large number of nominations, reflecting solid recognition across all sectors, levels, gender and race for researchers in - and contributors to - science, engineering, technology and innovation (SETI). "The nominations also reflect the wealth of SETI research and development done in South Africa," he said.

An adjudication panel of independent judges, representing all sectors within the NSTF as well as the award partners, reviewed the nominations to establish the finalists and the winners. A panel of experts was appointed to review and provide validation of the selections made.

Winners in the respective categories were:

To an individual for an outstanding contribution to SETI over a lifetime

Professor Robert Millar, Professor and Director of the Mammal Research Unit, University of Pretoria and Director of the University of Cape Town/MRC Receptor Biology Group

For his work as an international leader in neuro-endocrinology and numerous discoveries which have been translated into effective treatments for reproductive diseases and cancers

T W Kambule NRF-NSTF Awards: To an individual for an outstanding contribution to SETI through research and its outputs over the last 5 to 10 years – sponsored by the National Research Foundation (NRF) (2 awards)

Professor Marietjie Venter, Professor and Head of Zoonoses Research Unit, University of Pretoria; and Centre for Respiratory Diseases and Meningitis, National Institute for Communicable Diseases, Johannesburg

For defining the role of several viruses as causes of pneumonia and neurological disease in humans and animals

and

Professor Graeme Cumming, Pola Pasvolsky Professor in Conservation Biology, University of Cape Town

For his far-ranging research on the theory and application of complexity theory in ecological and social-ecological systems, particularly in relation to the conservation and management of natural resources

T W Kambule NRF-NSTF Awards: To an emerging researcher for an outstanding contribution to SETI through research and its outputs over a period of up to six years after award of a PhD or equivalent in research – sponsored by the NRF (2 awards)

Dr Marieke Gryzenhout, Senior Lecturer, Department of Plant Sciences, University of the Free State

For her research on the systematics, pathology, ecology and mycogeography of fungi

and

Professor Sinha Saurabh, Director, Carl and Emily Fuchs Institute for Microelectronics, University of Pretoria

For pioneering the field of mm-Wave Integrated Circuits in Africa. The technology, if realised, has the potential to address the limited bandwidth capacity in the country

To an individual for an outstanding contribution to SETI through management and related activities over the last 5 to 10 years or less (one joint or team award)

The Square Kilometre Array (SKA) Team

- Tracy Cheetham (General Manager: Infrastructure and Site Operations)

For her contribution to proving to the world that South Africa has the capacity and expertise to build a world-class mega-telescope, through the successful delivery of infrastructure for the SKA programme

- Kim De Boer (General Manager, People Support and Development, Communications and Project Secretariat)

For her visionary role in, and dedication to developing and nurturing science and engineering research capacity for the MeerKAT and the SKA in South Africa and the rest of the African continent

- Willem Esterhuyse (MeerKAT Project Manager)

For setting an international benchmark on project management and system engineering for delivering science instruments

- Dr Bernie Fanaroff (Project Director)

For his role, over a period of 10 years, in leading South Africa's successful bid to host the Square Kilometre Array

- Dr Adrian Tiplady (SKA Site Bid Manager, Johannesburg)

For his key role, as Site Bid Manager, in successfully securing the majority share of the SKA project for South Africa and Africa

To a researcher for an outstanding contribution to SETI through research capacity development over the last 5 to 10 years – sponsored by Eskom (2 awards)

Professor Lesley Cornish, School of Chemical and Metallurgical Engineering, and Director of DST/NRF Centre of Excellence in Strong Materials, University of the Witwatersrand

For her leading role in establishing the African Materials Science and Engineering Network (AMSEN) and inspiring supervision of many students from South Africa and Africa

and

Dr Robert Tshikudo, Director and Head of Nanotechnology Innovation Centre, Mintek

For the establishment and management of a world-class nanotechnology innovation centre

To an individual or a team for an outstanding contribution to SETI through communication for outreach and creating awareness over the last 5 years – sponsored by the South African Agency for Science and Technology Advancement (SAASTA)

Professor David Block, Professor of Applied Mathematics and Astronomy, University of the Witwatersrand

For his pioneering discoveries which are reshaping astronomical paradigms, and his imprint on human culture, which is a legacy to all South Africans

To an individual or team for an outstanding contribution to SETI through research leading to innovation

- **in a corporate organisation or institution (2 awards)**

Adaptive Real-Time Internet Streaming Technology (ARTIST) Team (a collaborative effort between the CSIR, University of Cape Town and East Coast Access)

Team leader: Dr Keith Ferguson, Chief Engineer and Research Group Leader, CSIR

For the ARTIST Project that has led to the development of a new technology platform that enables viewers to watch live content on their mobile devices from anywhere in the world with minimal interruption to their video stream

and

Ultrasonic Broken Rail Detection, IMT- CSIR Team
Team leaders: Dr Phillip Loveday, Materials Science and Manufacturing Operating Unit, CSIR; and Francois Burger, Institute for Maritime Technology

For the development of a real-time system that alerts heavy-freight railway operators to railway-line breakages via Ultrasonic Broken Rail Detection technology, enabling immediate action that saves lives and money and prevents structural damage

- **in a small, medium or micro enterprise**

JS1 Development Team, Jonker Sailplanes. Team leader and Head of Engineering at NWU: Dr Attie Jonker

For the development of the JS1C Open Class sailplane. Four planes took part in the 2012 World Gliding Championships and all finished in the top 10, with one finishing third overall.

- **in an non-governmental, community-based or non-profit organisation**

No award

The NSTF also uses the annual awards ceremony as an opportunity to recognise and reward 18 first-year science and engineering students (a young man and woman from each of the nine provinces), who obtained top marks in Mathematics and Physical Science in the 2012 National Senior Certificate Examinations (as identified by the provincial education departments and the NSTF).

Called the Brilliants Programme, the initiative has proved its value over the years. “It has been very useful in assisting deserving, previously disadvantaged students in getting bursaries,” says Jansie Niehaus, Executive Director of the NSTF. “The THRIP Programme, funded by the Department of Trade and Industry, has committed to providing bursaries to two of these students every year. All the students are sponsored to attend the main Awards Gala Dinner as special guests of honour”, she points out. The students also receive special mention during the main ceremony, and certificates in recognition of their achievements.

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NOTE: Additional information on the winners and their research, as well as photographs of the awards ceremony, can be accessed [here](#) after 10h00 on Friday, 28 June.

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