

**HEALTHCARE OF THE FUTURE: THE GOOD, THE BAD & THE NANO?  
MEDIA ROUND TABLE – 9 FEBRUARY 2011  
SPEAKER INFORMATION**

**Ms Debora Patta - Facilitator**

Debora Patta is currently Executive Producer and anchor of Third Degree – South Africa's top rated current affairs programme. She is famous for her no-holds barred interviewing style and for her tough uncompromising journalism. Debora is a multi-award winning journalist who was recently honoured with the Vodacom Media Woman of the Year. She has covered virtually every major story both locally and internationally over the past 20 years.



1990 marked her first foray into journalism working as a production assistant for the BBC. She then joined Radio 702 and worked her way through the ranks as an overnight producer, reporter and News Editor. In 1998 she joined South Africa's first independent free-to-air channel where she has carved a career both on-air and in management. In 2001 she conceived and launched Third Degree. In 2005 she was appointed Editor-in-Chief for e.news and was part of the team that turned around the company's news ratings and headed the team that launched South Africa's first independent 24hr news channel in 2008. Debora has covered stories ranging from Nelson Mandela's presidency to 9/11, the Gulf Wars, Princess Di's death and the Obama election. She has co-authored two books and is married with two daughters.



**Mr Matlho JJ Molapisi, Department of Science and Technology**

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Matlho is the Director of the Emerging Research Areas at the Department of Science and Technology (DST). His diverse background includes a BSc (Hons) from the University of the Witwatersrand, and an MSc in Chemistry from the University of Pretoria. He also holds a Professional Certificate and Advanced Diploma in Management from the University of South Africa (UNISA) and an MBA, awarded in 2002, by the Open University, UK in partnership with UNISA. His current studies are focusing on Organizational Leadership (D-Tech) at the Tshwane University of Technology. His professional experience include a period as a Research Scientist (1996–2001) and as a Contracts Manager (2001–2002), both at the South African Nuclear Energy Corporation (Necsa), and as a Laboratory Manager at the South African Bureau of Standards (2002–2005), after which he joined DST.

**Prof Rui Krause, University of Johannesburg**

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Rui is based at the University of Johannesburg where he is Director of the newly launched Centre for Nanomaterials Science and also Associate Professor and Lecturer in the Department of Chemical Technology. After completing his PhD in Chemistry in 2005, he specialised in the synthesis of natural products, and cultivated a love for medicinal plants and organic chemistry. After moving to the University of Johannesburg (the then Technikon Witwatersrand) he helped establish a research group in carbon nanomaterials, looking at the synthesis and characterisation of novel carbon structures such as nanotubes and fullerenes. This group has rapidly evolved into the Centre for Nanomaterials Science, launched in 2010, consisting of over 10 senior scientists and 40 postgraduate students researching the creation of nanomaterials and their application in water treatment, energy, strong materials, and health. The health nanotechnology projects at the Centre include the detection of disease, the treatment of priority African diseases, and effective drug delivery.





**Dr Robert Tshikhudo, Mintek**

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Robert joined the Advanced Materials Division of Mintek after completing his MSc degree in chemistry from Rhodes University. He worked within the Project AuTEK (R&D into new industrial uses for gold), where he was involved in the development of gold-based catalysts for CO oxidation. He holds a PhD in Chemistry from the University of Liverpool, UK where he designed and developed biocompatible gold and silver nanoparticles which are currently semi-commercialised. Currently he heads up a DST/Mintek Nanotechnology Innovation Centre, one of the first two centres for nanotechnology in South Africa. His research interests range from the preparation of metal nanoparticles and their applications in health (diagnostics and therapeutics), water (monitoring and remediation) and other related fields.

**Prof Viness Pillay, University of Witwatersrand**

**Email: Viness.Pillay@wits.ac.za; Tel: 011 717 2274**

Viness, a Fulbright Scholar, is a South African NRF Research Chair in *Pharmaceutical Biomaterials and Polymer-Engineered Drug Delivery Technologies* hosted by the University of the Witwatersrand, funded by the Department of Science and Technology (DST) and administered by the National Research Foundation (NRF). He is also a Personal Professor of Pharmaceutics, Head of Pharmaceutics and Director of Pharmaceutics and Contract Research at the University of the Witwatersrand. He is the Director of the Wits Drug Delivery Platform, funded by the Technology Innovation Agency (TIA) amongst others. His qualifications include a PhD from Temple University School of Pharmacy in Philadelphia, USA (via a Fulbright scholarship) and a Master of Pharmacy (*cum laude*) from the University of Durban-Westville, where he was also awarded the Chancellor's Research Award for his work. He also served as an Associate Professor of Pharmaceutics at the College of Pharmacy and Pharmaceutical Sciences, Florida A&M University in Tallahassee, USA.



His research findings have been extensively published with over 80 publications in international peer-reviewed journals and he has made over 270 scientific presentations at local and international conferences. He is a member of several prestigious academic associations, both internationally and nationally and is a co-founding Executive Member and ex-President of the Biomaterials Association of South Africa (BioMatASA). He currently supervises a team of over 50 Honours, Masters and PhD students, Postdoctoral Fellows and Researchers and has over 30 local and international patent applications currently granted or under prosecution in US, Europe and Japan. Recently, Viness was designated as the Institutional Director of the Wits Hub of the National Medical Devices Innovation Platform (NMDIP), an initiative of the Medical Research Council. He is currently recognized as a C2-rated scientist with the NRF for his work in drug delivery and rate-modulating polymeric complexes and was also a recipient of the prestigious Friedel Sellschop Award at the University of the Witwatersrand, which recognizes exceptional young researchers.

Viness has served on the Pharmaceutical and Analytical Committee of the Medicines Control Council (MCC) of South Africa. He is frequently called upon by the NRF, CSIR and other local and international institutions and research funding organizations as an expert reviewer of grant and rating applications. He currently serves on the Reviewer and Editorial Advisory Boards of numerous international scientific journals and book and is a member of the Research Advisory Panel of the CSIR.

**Prof Mary Gulumian, National Institute of Occupational Health**

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Mary graduated with a PhD from the University of the Witwatersrand in 1979, after which she joined the National Centre for Occupational Health (NCOH) which later became the National Institute for Occupational Health (NIOH), where she is now the head of the Toxicology Section. She also holds an honorary Professorial post in the Haematology and Molecular Medicine Department, University of the Witwatersrand, where she is involved in post graduate training and presentation of short courses in Toxicology and Health Risk assessment. In 2006, Professor Gulumian was a visiting scientist to Washington University's, Department of Environmental and Occupational Health Sciences, Institute for Risk Analysis and Risk Communication. Her research interests include hazard identification and communication as well as elucidation of mechanisms of toxicity of micro and nano particles, toxic metal ions and pesticides. She leads numerous nationally funded research projects, has authored and co-authored several scientific publications and has been invited to present at numerous local and overseas conferences. Professor Gulumian regularly reviews funding applications for research on behalf of number of national research organisations and has provided expert consultation to industry and government departments on the toxicity of chemicals in the working and ambient environments.

Nationally, Professor Gulumian is the founder member and past President of the Society for Free Radical Research of South Africa (SFRR-SA); founder and current President of the Toxicology Society of South Africa (TOXSA) and is a member of Pan African Environmental Mutagen Society (PAEMS). Internationally, Professor Gulumian is a member of Society for Free Radical Biology and Medicine (SFRBM), Society of Toxicology (SOT) and Society of Risk Analysis (SRA) and the organizer of the 7<sup>th</sup> Congress of Toxicology in Developing Countries (7<sup>th</sup> CTDC) in 2009. She was a member of the final review board of WHO Concise International Chemical Assessment Documents (CICAD) publications on number of toxic compounds. Currently, she represents South Africa in the OECD Working Party on Manufactured Nanomaterials as well as serving on the national Expert Technical Committee for WG3 of ISO/TC 229. Professor Gulumian is also a member of the Editorial Board of the journals of Human and Experimental Toxicology (HET) and Particle and Fibre Toxicology (PFT). She presently serves on the IUTOX Executive Committee 2010-2013.