

Prof N. Lall's Biography

Prof Lall has been placed in the Essential Science Indicators list of the top 1% of publication outputs (citations) in the discipline PHARMACOLOGY and TOXICOLOGY. Prof Lall is internationally recognised as a leading scholar in the field of Phytomedicine which is reflected by her recent appointments as an adjunct Professor at the School of Natural Resources University of Missouri, USA (Dept is 1 of the top 15 in the world), a Senior Research fellow at the Bio-Tech R&D Institute, Jamaica and an adjunct faculty at JSS AHER, India.

She has international recognition for her research into the potential of medicinal plants for pharmaceutical and cosmeceutical purposes. One pharmaceutical product for skin-hyperpigmentation problem has been commercialised by international and national companies in European countries and in South Africa. Another sixteen Pharmaceuticals prototypes are close to commercialisation: adjuvants for Tuberculosis, skin-cancer, acne and for periodontal diseases. Seven bioprospecting permits have been obtained.

Five start-up companies named, "Bio Indigenous Solution" (a Mamelodi community- based company in Pretoria), "Blyde Botanics", "Anoiksen", "Scholareview" and "Looksci" (formed by Young postgraduates) resulted from Prof Lall's research programme.

She has made a significant contribution to the field of Medicinal Plant science. Several medicinal plants with valuable biological activities have been discovered which has led to several patents. Four South African patents and 6 international (PCT) patents of which 3 have been granted in the US, 2 in the European Union, 2 in the ARIPO states, and 1 in China, South Korea, Australia, India and Japan. She has published 150 research articles, 46 book chapters and her H-index is 40 (researcher id:(<http://www.researcherid.com/rid/A-2635-2012>) and RG score is over 40 (Top 5%). Three books on medicinal plants have recently been published by ELSEVIER. She has been awarded National Research Chair in Plant Health Products from IKS, by the NRF/DST in 2016.

Among several awards received in recognition for her work, a few are "**The Order of Mapungubwe**", South Africa's highest honour from the Honorable South African President Jacob Zuma (April 2014), Distinguished Young Women in Science Award by Naledi Pandor, Honorable minister of the Science and Technology of South Africa (August 2011), prestigious United Kingdom Royal Society/National Research Foundation award, South Africa (2005), "National Research Foundation/ Center National de La Recherche Scientifique (CNRS) award" (2004-05), University's "Young Exceptional Performers award (2002), S2A3-Gencor bronze medal by South African Association for the Advancement of Science (April

1997), Council award of a Gold medal for BSc Honours (April 1994), Outstanding achievement award for PhD (March 2002) and UNESCO-L'Oreal Award for Women in Science (one of the 10 selected candidates internationally, March 2002). She was recently awarded with the Gauteng Accelerator Programme (GAP) innovation competition, (second prize nationally) which identifies emerging technology entrepreneurs for incubation and start up (Nov 2016), Biotech Fundi Lifetime Contribution Award by GDARD and Innovation hub (March 2017) Top intellectual property creator award (2019). She was the finalist for "National Science and technology Forum" 32 awards **(2017/2018)**; TW Kambule NSTF Awards: Researcher.

She has established networks with leading researchers all around the globe including in the USA, England, France, Egypt, India, Cameroon, Italy, Ireland, Tanzania, Mauritius and Japan. She is the member of numerous international scientific committees including "The American Chemical Society", The Society of Cosmetic Chemists of South Africa and the Advisory Board for the Phytomedicine research at the JSS College of Pharmacy OOTY, India. She has been as a visiting Scientists at various institutions including Kings College London, CNRS France and University of Illinois, Chicago, Bastyr University Seattle.

She is one of the founders for the development of a new specialized field, called "Medicinal Plant Sciences" at postgraduate level in January 2007 at the University of Pretoria, South Africa which is one of its kind in South Africa. She is the course leader for an Online certificate programme; (Phytomedicine and Natural Products) which should start at the University from January 2019. Prof Lall's research area involves antituberculosis natural product leads from medicinal plants, cytotoxicity of plant extracts/compounds, anticancer activity of medicinal plants, isolation, and purification of bioactive principles from plants. **Twenty five Masters and twenty three PhDs** have graduated under Prof Lall's supervision. Majority of them were South Africans and a few with other nationalities (One German, Cameroonian, Mozambican, Indian, Mauritian, Iranian and an Egyptian). At present, she is supervising/co-supervising 6 Masters and 14 PhD- students.

She is regularly invited to present papers at national and international conferences. She has presented 10 keynotes, 3 plenary talks (USA, Malaysia, China, Australia, India, Dubai) and seven invited talks at international conferences. She is also invited as a visiting scientist in first-rate laboratories and had presented lectures to postgraduate students in France, Mauritius, Seychelles and in India on the efficacy of medicinal plants. She has demonstrated commitment to community by interacting positively with traditional health practitioners and engaging them in advancing traditional medicines towards conventional pharmaceutical products.