CV of Nompumelelo Happyworth Obokoh

**PhD Plant Biotechnology (University of Cambridge, UK)**

**Address:** No.72 Witterberg **Maiden Name:** Masubelele

Equestria Estate **Nationality**: South African
Tshwane, 0184, South Africa **ID No.:** 7403220327083

**Cell phone:** +23732426478/+27817388784 **Place of Birth:** Mamelodi, Tshwane

**Email:** nhmpumi@gmail.com **Marital status:** Married

1. **KEY HIGH-LEVEL HIGHLIGHTS**
* I am humbled to have been featured in the Women’s Report 2020: ***Celebrating Black Women’s Excellence*** ([www.womensreport.africa](https://eur03.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.womensreport.africa%2F&data=02%7C01%7C%7C42983d5a3f694086d32908d849edf24a%7Ca6fa3b030a3c42588433a120dffcd348%7C0%7C0%7C637340633665151584&sdata=gUikugWwBoNIXI%2Fm%2Bk%2Bl9sPz3ydBZo0eCqmXbutHs6k%3D&reserved=0)).
* I am currently the Chairperson of the National Research Foundation (NRF) in South Africa.
* I have served as a Commissioner in the Presidential Commission on the 4th Industrial Revolution (4IR); and contributing to the Science, Technology & Innovation (STI) workstream of the Commission.
* I have led the national flagship programme on Intellectual Property (IP) for small businesses (SMMEs) in South Africa; chairing Task Force Team in collaboration with the UN’s World IP Organization (WIPO).
* Key High-level interventions & thought leadership to advance R&D, agricultural productivity and the 4th Industrial Revolution in South Africa includes:
	+ Moderation of the Academia, Research & Development & Innovation Session, **AI Dialogue-South Africa: Building a responsible AI ecosystem in South Africa**. MS Teams Meeting, 5th August 2020.
	+ **NRF’s Response to COVID-19**, Boards of DSI’s entities meeting with the Minister of Higher Education, Science & Technology, virtual meeting, 24 July 2020.
	+ Facilitation of the High-Level Panel on **Governments and Policymakers: Nurturing Innovation in the Digital Economy. Netrepreneurs: The Rise of Africa's Digital Lions. 8 August 2018**, Linder Auditorium Johannesburg.
	+ **Presentation at the South Africa-China Cooperation on Science, Technology & Innovation (STI), 24th July 2018, CSIR-ICC. Obokoh N. Biotechnology & Intellectual Property – one of the drivers of the 4th Industrial Revolution. (**President Cyril Ramaphosa hosting President Xi Jinping of the People's Republic of China on a visit to the DST & CSIR).
	+ Presentation at the White Paper on Science, Technology & Innovation Summit, **special invitation from the Minister of Science & Technology; 9 November 2018,** *Future Africa Conference Centre, Pretoria*.
1. **PROFESSIONAL PROFILE**

**2020 December -**

**Managing Director: Langace PTY (LTD) – private consultancy firm**

**Responsibilities include:**

* Offering value-added consultancy services throughout the agri-tech innovation value chain, research and development, including specialized agricultural and environmental/resource management advisory and technical support services enabling business growth and resilience.
* Establishing thought leadership and advocacy of agricultural biotech, food security and climate change issues.
* Leading the research enterprise portfolio for technology development, demonstration trials and capacity building.
* Providing overall direction and leadership towards the achievement of Langace’s mission and strategic plans,
* Establishing innovative public private partnerships with various national and international organizations.
* Building the public profile of Langace through networking, conferences and speaking engagements.

**2016 January – 2020 November**

**Divisional Head (Chief Director): Innovation Support & Protection (Intellectual Property Rights),** Companies & Intellectual Property Commission (CIPC), **The dti** Campus, Pretoria

**Responsibilities include:**

* Lead the National IP for SMME Project Task Force Committee & manage project activities in collaboration with WIPO, the dtic, Department of Small Business Development, SEDA, MINTEK and Technology incubators (e.g. eGoliBio).
* Lead and manage the Innovation Support and Protection Division (Overseeing strategic portfolios: Patents & Designs registration, IP Policy and Education Outreach; Technology Transfer & Commercialization; International Co-operation units).
* Strategically direct the development of well researched and relevant strategies to improve and maintain the accuracy and integrity of the patent and designs registers and to support a culture of innovation by enhancing the understanding and awareness of applicable legal frameworks, the benefits of registration and opportunities for exploitation;
* Direct and lead the development and dissemination of well-articulated legal and policy positions and advocacy, supported by relevant and credible research;
* Direct and oversee the implementation of measures to ensure that effective, relevant and high quality services are rendered to the public and that services are continuously improved;
* Direct inputs into relevant legal, policy and advocacy positions and to represent the CIPC in relevant national and international fora (e.g. WIPO, BIO, BIO-Asia);
* Identify relevant collaboration partners and manage relevant stakeholder interactions and fora (e.g. internationally EPO-European Patent Office; USPTO, BRICS- IP offices; WIPO – World Intellectual Property Organisation; BIO-Biotechnology Industry Organization);
* Manage and oversee the strategic and business planning and budgeting for the division and monitor the implementation of the business plan and related projects;
* Ensure adherence to human resource, financial and administrative strategies, policies and procedures in the division.

**2012 – 2015**

**Chief Executive Officer,** AfricaBio, The Innovation Hub, Pretoria

**Responsibilities included:**

* Reporting to the Board of Directors and providing overall direction and leadership towards the achievement of AfricaBio’ mission, strategy, and annual operational plans.
* Leading and facilitating the development and implementation of the organization’s strategic and business plan, liaising with Industry partners to ensure technology adoption and stewardship.
* Overseeing design, marketing, promotion, delivery and quality of all projects.
* Managing the organization’s core functions to ensure financial sustainability, good governance, and enhanced government-industry relations.
* Redesigning employee performance evaluation process, streamlining staff job descriptions, and aligning remuneration packages with roles and responsibilities.
* Effectively managing the human resources of AfricaBio according to authorized personnel policies and procedures that fully conform to current laws and regulations.
* Overseeing financial resource mobilization, planning and implementation, including identifying resource requirements, researching funding sources, establishing strategies to approach funders, and eventual submission of proposals.
* Raising funding to cover operational costs and project activities.
* Providing thought leadership in science and technology development and advocacy on emerging Biotechnology issues.
* Organising conferences, workshops, seminars and business breakfasts with key technology and implementation stakeholders.
* Capacity building initiatives of small scale farmers, technology demonstrations and stewardship program implementation.
* Establishing innovative public-private partnerships, with various national and international organizations.
* Ensuring that AfricaBio and its objectives and strategy are consistently presented in a strong, positive image to relevant stakeholders.

*2009 to 2012 January*

Country Representative/Projects Manager, African Agricultural Technology Foundation (AATF), Abuja, Nigeria

*2008 to 2009 January*

Project Manager, African Agricultural Technology Foundation (AATF), Headquarters Nairobi, Kenya.

Responsibilities included:

* + Overseeing the organisations strategic operations and ensure contribution to socio-economic development in West Africa.
	+ Managing the cowpea and rice improvement projects, geared to enhance food security and environmental protection for farmers in sub-Saharan Africa.
	+ Managing complex project activities across the entire product development and commercialisation value chain (liaising with the Intellectual Property management/Legal Unit, Regulatory compliance, communications and technology development and Commercialisation units) & establish market linkages for farmers.
	+ Developing concept notes, draft projects business plans, conduct feasibility studies & market analysis, design project work plans and budgets, facilitate the implementation, monitor and evaluate (M&E) programme activities against the set objectives and milestones; supervise the technical team, organise and lead stakeholder project review & planning meetings, and as a resource-person in training workshops.
* Managing Stakeholder’ and Strengthen Partnerships, Build Regional capacity (mentoring & training: project team, policy makers, resource poor farmers, communities, scientists, communicators, journalists etc.).
* Writing Project proposals & progress reports for Board of Trustees, Donors, and collaborating scientists.
* Managing over grants from international funders for implementation of project activities in Nigeria, Burkina Faso and Ghana.

*2006 – June 2007*

Rothamsted International African Fellow, Department of Plant Breeding and Genetics, IGER, Aberystwyth, UK.

Project: Dissecting the molecular mechanisms of drought tolerance in Cowpea.

Responsibilities included:

* Sourcing project funding and establishing collaboration opportunities with UK scientists.
* Project formulation and implementation.
* Monitoring and evaluation of project.
* Writing proposals for funding and progress report to sponsors.
* Liaison with UK project partners, presentation of project results at research forums and international conferences.

*2005 (June) - 2007*

Senior Researcher/Manager, Biotechnology Division, Agricultural Research Council, ARC-Roodeplaat Vegetable and Ornamental Plant Institute, Pretoria.

Responsibilities included:

* + Development of molecular markers and breeding populations to screen for drought tolerance in mutated Cowpea and *Amaranthus* lines using Marker-Assisted Breeding.
	+ Coordination of the research component to test the safety (allergenicity tests, *in vitro* protein expression and digestibility tests) of Genetically Modified (GM) potatoes developed in collaboration with the Michigan State University (MSU).
	+ Identifying and scouting appropriate technologies and developing projects that could enhance farm productivity for small holder resource-poor farmers.

*2002 - 2005 (May)*

Postdoctoral Research Associate, Institute of Biotechnology, University of Cambridge, UK.

Project: Dissect plant growth and development through Gene expression profiling during seed germination in *Arabidopsis thaliana* using the Affymetrix Genechips/Microarrays.

Responsibilities included:

* + Implementation of a research programme funded under the EU-Framework 5 Project: Quality of life and management of living resources.
	+ Collaboration with a consortium of European Project Leaders: in UK: University of Cambridge, Univ. London-Royal Holloway; Germany: Max-Planck Institute für Züchtungsforschung, Cologne; France: INRA-Montpellier; Belgium: CropDesign N.V., Ghent.
	+ Visiting laboratories to develop molecular tools essential for plant growth.

**4. EDUCATIONAL BACKGROUND**

2016 **Aspen Global Leadership Network (AGLN).** African Leadership Initiative (ALI) Fellow, South Africa.

2008 **University of Cape Town: Graduate School of Business (Executive)**

 Project Management Programme - A business Approach.

1999 - 2002 **University of Cambridge, Magdalene College**

 PhD in Plant Biotechnology, Institute of Biotechnology.

1. - 1998 **University of Pretoria**

 MSc. in Plant Biotechnology (graduated *cum laude*)

### 1995 **University of Pretoria**

##  BSc. Honours in Microbiology [graduated First Class plus 4 distinctions].

### 1991-1994 **University of Zululand**

BSc. Microbiology and Biochemistry as majors [graduated First Class plus 6 distinctions].

1. – 1990 Phateng Secondary School, Mamelodi
2. MEMBERSHIPS - BOARD, SCIENCE COMMITTEES & PROFESSIONAL AFFILIATIONS
* Director, Serella NPC
* Director (executive), Langace (PTY) LTD
* Independent, non-Executive Director (Member of the Board), FruitSA
* Commissioner, Presidential Commission on the 4th Industrial Revolution (appointed April 2019)
* Chairperson**,** National Research Foundation (NRF) Board (October 2018 – September 2022)
* Member of the THRIP Adjudicating Committee, The dti, Pretoria (2016).
* Member of the International Advisory Board – BioAsia, Hyderabad, India (2015 – 2016).
* Chair of the SA-BIO Organizing Committee,Pretoria, South Africa (2015).
* Member of the Board of Directors. ICBA - Heads of Biotechnology Associations, Washington DC (2013 – 2015).
* Chair of the Bio-Science Park Advisory Panel, The Innovation Hub, Pretoria (2014-2015).
* Member of the Advisory Committee,Open Forum on Agricultural Biotechnology, Kenya. (2013 – 2015).
* Registered as Professional Natural Scientist- Biological Science, Reg. no. 400320/07, South African Council for Natural Scientific Professions.
* Member of the organising committee for the Passage of the Biosafety Bill in Nigeria, September 2009 to 2012.
* Member of the planning committee for the Open Forum on Agricultural Biotechnology (OFAB), Nigeria-Chapter, June 2009 to 2012.

**6. AWARDS & HONOURS**

2013 **Best Biotech Communicator,** 2013 - Biotech Fundi Awards, Gauteng Department of Agriculture & Rural Development (August, 2013).

2013 Nominated for the Top Woman 2013 awards

2006 – 2007 **African Research Fellowship,** Rothamstead International

2003 & 2004 Postdoctoral Fellowship, National Research Foundation (NRF).

2001 Third year PhD student award, Institute of Biotechnology, University of Cambridge.

1999 - 2001 Mandela Cambridge Scholar, Cambridge Commonwealth Trust (CCT).

Overseas Research Student Award, Committee of the University Principals.

 Mandela Magdalene College Scholar, CCT and Magdalene College

 Scholarship Scheme.

 Fellow of the Cambridge Commonwealth Society, CCT.

1998 Best Student Oral Presentation, South African Genetics Society 16th Congress, University of Orange-Free State.

Equity Scholarship for MSc. studies, Foundation for Research and Development (FRD/NRF).

1996 MSc. Grant-holder Bursary, FRD/NRF.

1995 Maryam Babangida Award for top female graduate, University of Zululand.

Council Award for the best final year degree student in the Faculty of Science, University of Zululand.

1994 **Best third year student award in Microbiology and Biochemistry,** University of Zululand.

**8. PROFESSIONAL ADJUDICATION - AWARDS /GRANTS/ JOURNAL REVIEW**

* **Facilitator** – IP & Technology Commercialisation Colloquium, School Prizes, 2019
* **Adjudication Panel member (Ministerial appointment):** The dti – THRIP project proposals, 2016
* **Adjudication Panel:** National Science & Technology Forum (NSTF), 2015-2016
* **International Journal Review:** African Journal of Agricultural Research, 2012-2013
* **Grant review:** NRF-THRIP, 2005 & 2007

9. CONTRIBUTIONS AT CONFERENCES/SCIENTIFIC MEETINGS

**Obokoh N.** Lead Presenter for the **Commission on Research Enterprise, Transformation & Human Resources at the Summit on the Draft White Paper on Science, Technology & Innovation.** Future Africa Conference Centre, University of Pretoria**,** 9 November 2018, Pretoria.

**Obokoh N.** Facilitation of the High-Level Panel on **Governments and Policymakers: Nurturing Innovation in the Digital Economy. Netrepreneurs: The Rise of Africa's Digital Lions. 8 August 2018**, Linder Auditorium Johannesburg.

**Obokoh N. Biotechnology & Intellectual Property – one of the drivers of the 4th Industrial Revolution. South Africa-China Cooperation on Science, Technology & Innovation (STI). 24th July 2018, CSIR-ICC (**President Ramaphosa hosting President Xi Jinping of the People's Republic of China on a visit to the CSIR).

**Obokoh N.** Education and Research Programmes of Intellectual Property in South Africa, 9th Symposium of the IP Academies of the Latin Americas and the Caribbean’s; 22 – 25 November, 2016, Florianopolis, Brazil.

**Obokoh N. Status of Biotechnology development and Adoption in South Africa.** International Workshop on the Global Status of Transgenic Crops, October 2014, Huazhong Agricultural University, Wuhan, China.

**Obokoh N.** Biotechnology Tools & Applications to improve agricultural productivity. Invited Speaker at the BRICS climate change summit, 24th Oct 2013, Muldersdrift, Johannesburg.

**Obokoh N.** AgBiotechnology & Biosafety in South Africa: Challenges and opportunities. Argentina-South Africa bilateral meeting, Pretoria, 23 Oct 2013, The Innovation Hub, Pretoria.

**Obokoh N.** Sharing the benefits of biotech crops with an African audience: Problems and Prospects, Invited Speaker at the Regional OFAB Annual Planning & Review Meeting, 9th May 2013, Dar-es Salaam, Tanzania.

**Obokoh N,** & Maseko B. Bt/HT maize demonstration trial project. Presented at the AfricaBio-LDA planning meeting, 10th September, 2013. Limpopo Dept. Agriculture, Polokwane.

**Obokoh N**. Perspectives on Public Private Partnerships for Agricultural Biotech Development in sub-Saharan Africa, presentation at the BIO’ Board of Governors Meeting, 18 June 2012, BIO 2012, International Convention, Boston, Massachusetts, USA.

**Obokoh N.** Harnessing the benefits of Agricultural Biotechnology: the Bt maize case study, presented to the South African’ Parliaments Portfolio Committee on Agriculture, Forestry and Fisheries, 9 March, 2012. Cape Town.

**Obokoh N**. Assessing the efficacy of cowpea expressing the Cry1Ab protein under confined field trials in Africa. Presented at the West Africa Cowpea Consortium workshop, 11-14 October 2011, Accra, Ghana.

**Obokoh N**. Overview of the NEWEST rice developed for small holder farmers in sub-Saharan Africa, Presented at the rice product development workshop, 28-29th July 2011, Kampala, Uganda.

**Obokoh N**. An Overview of the *Maruca*-resistant Cowpea Project for Africa. Presented at the CFT Sensitization Seminar & Regulatory Compliance Workshop, 13-14 July, 201, Farako-Bâ, Bobo-Diaulasso.

**Obokoh N**. & Nang’ayo F. *Maruca*-resistant cowpea project for Africa: successes, challenges and lessons. Presented at the International Cowpea Alliance Meeting, 9-10 June 2011, Purdue University, Indianapolis, USA.

**Obokoh N**. & Cole, Tejan. The Impact of IP Legislation on Agricultural Research in Africa. Presented at the Open Forum for Agricultural Research (OFAB), 26th May 2011, Abuja, Nigeria.

**Obokoh N**. Global Partnerships in Agricultural Development. Presented during the Media Training on Agricultural Biotechnology Workshop, 19 October 2010, Abuja, Nigeria.

**Obokoh N.** Partnership in the development of a *Maruca*-resistant cowpea for use by smallholder farmers in sub-Saharan Africa, Presented at the 5th World Cowpea Research Conference, September 27 – 1 October, 2010, Saly, Senegal.

**Obokoh N.** Towards the development of a *Maruca*-resistant cowpea for use by small holder farmers in SSA**.** West African Cowpea Consortium, 21-23 September, 2010**,** Dakar, Senegal.

**Obokoh N**. Biotechnology in food sufficiency in Africa: Case study of *Maruca* resistant Cowpea Project**.** The World Federation of Science Journalists II Regional Workshop**,** 13 September, 2010, Abuja, Nigeria. http://www.wfsj.org/news/news.php?id=239

**Obokoh N & J. Stein.** Procedural mechanisms regarding review of application, decision-making, and communication for CFT applications. ICGEB Biosafety workshop, 30th August – 3rd September, 2010, Accra, Ghana.

**Obokoh N**. Biosafety considerations for the deployments of the Bt cowpea in sub-Saharan Africa. ICGEB Biosafety workshop, 30th August – 3rd September, 2010, Accra, Ghana.

**Obokoh N**. The development of Agricultural Science & Technology and attainment of Vision 20:2020 in Nigeria: AATF’contribution. SHEDA Science & Technology Complex (SHETSCO), 31st August 2010, Abuja, Nigeria.

**Obokoh N**, Dartey K, Lamo, J & A, Maji. Partnership to develop the NUE-ST & WUE rice for Africa. “Forging partnerships for rice development in Africa”. 11-13 August, CIAT, Cali Colombia.

**Obokoh N**. Progress towards development, regulatory compliance and testing of Bt cowpea. Presentation to the KirkHouse Trust, with Prof. Sir Ed Southern in attendance. AATF head quarters, August 2009 Nairobi, Kenya.

**Matole, N, Higgins, T.J., Omanya, G., Nang’ayo, F., Marechera, G., and H. Mignouna**. Contributing to reduced Maruca infestation in cowpea fields of Africa through Biotechnology applications. 1st All Africa Congress on Biotechnology, September, 2008. Nairobi, Kenya.

Matole, N. H. Development and analysis of the mutant germplasm of *Vigna* unguiculata. South Africa/United Kingdom workshop. November 2006, University of Cambridge, Darwin College Cambridge, UK.

Matole, N. H & de Ronde, K. Genetic analysis of the drought tolerant mutant Cowpea (*Vigna unguiculata* L. Walp.) lines. “Regional Partnerships to Enhance Bean/Cowpea Consumption and Production in Africa and Latin America”. September 2005. Dakar, Senegal.

**Matole, N. H., Dewitte, W., Menges, M. & Murray J. A. H**. Microarray analysis of seed germination in *Arabidopsis thaliana*. Annual meeting of the European Framework Project V (FP5) consortium (Growth vigour environment). November 2004. University of London, Royal Holloway, London-UK.

**Matole, N. H., Dewitte, W., Menges, M. & Murray J. A. H**. Gene expression and cell cycle analysis during *Arabidopsis* seed germination. July 2004. Budapest UNESCO meeting, Hungary.

**Matole, N. H., Dewitte W, & Murray, J. A. H**. Gene expression analysis during germination in *Arabidopsis thaliana*. Annual meeting of the European Framework Project V (FP5) consortium (Growth vigour environment). November, 2003. Montpelier, France.

10. PUBLICATIONS

### **Peer-reviewed Journals**

**Nompumelelo Obokoh** & David Keetch. The status of GM Crops in sub-Saharan Africa. Special Issue of the International Workshop on Global Status of Transgenic Crops. Journal of Huazhong Agricultural University (Natural Science Edition). Vol 33. N . 6. October **2014**. p 59 – 68. Huazhong Agricultural University, Wuhan, China

Huesing, Joseph.E., Romeis Jörg,. Ellstrand Norman C, Raybould, Alan R., ... Ishiyaku, Mohammad F., Margam, Venu M., **Obokoh, Nompumelelo**,H., Mignouna, Jacob D. Regulatory considerations surrounding the deployment of Bt-expressing cowpea in Africa: Report on the deliberations of an expert panel. GM crops **2011**. 2:11- 224. PMID: 22179194

**Nompumelelo H. Masubelele,** Walter Dewitte, Margit Menges, Spencer Maughan, Carl Collins, Rachael Huntley, Jeroen Nieuwland, Simon Scofield, and James A. H. Murray. D-type cyclins activate division in the root apex to promote seed germination in *Arabidopsis*. *Proc. Natl. Acad. Sci. USA*. **2005**; 102(43): p. 15694-15699.

**Selected Publications & Media coverage**

2020 - <https://www.agriorbit.com/fruit-south-africa-appoints-new-director/>

2020 - <https://www.saasta.ac.za/media-room/women-in-science/dr-nompumelelo-obokoh-a-plant-molecular-biologist/>

2020: <https://aidialogue.org.za/guests.html>

2015 - <https://issuu.com/amai1/docs/africa_in_union_issue_2015>, pg 38-39, A good story to tell – small scale farmers in South Africa benefiting from growing GM crops

2014 - Pg, 68. Bolstering Food security – How the science of Biotechnology is complementing conventional agriculture.

2014 - <https://issuu.com/amai1/docs/inspire_sa_issue_5> Biotechnology – Building a food secure Africa, Inspire South Africa, Issue 5, pg 66-67.

# 2014 <https://www.herald.co.zw/biotech-debate-farmers-missing/>Biotech debate, farmers missing

2014 - <https://www.thejournalist.org.za/contributors/nompumelelo-h-obokoh/>

2013 - <https://issuu.com/picassoheadlinepublishing/docs/csi_edition1_lowres>, pg 60-61 Keeping pace with food demands.

2013 - <https://issuu.com/topcomedia/docs/tw10books>, pg 59, Your Top Woman - Dr Nompumelelo Obokoh, CEO.

2012 - <http://www.choicemarketing.co.za/pdf/agri28/49.pdf> – Biotechnology can fight hunger & poverty in Africa.

2012 - <https://issuu.com/beyondpublishing/docs/issue17_lowres> The right to food, Biotechnology can boost crop yields and incomes, says South African GM farmers, Beyond Sustainability, Issue 17. pg 86-87.

2012 - <https://issuu.com/amai1/docs/africa_in_union>, The 10th Anniversary Journal of the African Union pg. 10, A voice for effective policies and innovations in Biotechnology – Dr Nompumelelo H. Obokoh.