# **UNIVERSITY OF PRETORIA**

# **CURRICULUM VITAE: EUGENIE KAYITESI**

# 1. BIOGRAPHICAL SKETCH

1.1 GENERAL INFORMATION													
Surname	Kayitesi												
First names	Eugénie					ID	Nur	nber	•	80022709	81184	ļ	
Citizenship	Rwanda and South African permanent resident			Ti	tle	Pro	of	Female	×	Male			
Place of birth	Luwero, Uganda			Da	Date of birth February 27, 19		27, 19	980					
Population group	African	×	Coloured		Indian		Wh	ite		Other (Please specify)			
Department	Consume	er a	and Food Sci	ien	ices	Position Associate Professor			ssor				
Direct Telephone	Tel: (+27) (0)12 420 3784; Cell: (+27) (0)782924929				irect elefa								
E-mail	Eugenie	Eugenie.kayitesi@up.ac.za											
Date of appointment	January (	)1,	2020				rman  -time				Tempo full-tin	-	

1.2 ACADI	1.2 ACADEMIC QUALIFICATIONS OBTAINED							
Degree/ Diploma	Field of study	Higher education institution	Year	Distinctions				
BSc (Hon)	Food Science and Technology	University of Rwanda (Formerly Kigali Institute of Science and Technology, Rwanda	2005					
MSc (Agric)	Food Science and Technology Dissertation "Sensory and nutritional quality of marama-sorghum composite flours and porridges"	University of Pretoria	2010					
PhD	Food Science Thesis title "Micronisation of cowpeas: the effects on sensory quality, phenolic compounds and bioactive properties"	University of Pretoria	2013					

1.3 WORK EXPERIENCE TO DATE						
Name of employer	Capacity and/or type of work	Period From (mm//yy to mm//yy)				
Department of Food Science and Technology, University of Rwanda	Laboratory Engineer/Research Assistant	Jan, 2006 - Dec, 2012				
Department of Food Science and Technology, University of Rwanda	Assistant Lecturer	Jan, 2013 - Dec, 2013.				
Department of Biotechnology and Food Technology, University of Johannesburg	Lecturer	Jan, 2014 – Sept, 2017				
Department of Biotechnology and Food Technology, University of Johannesburg	Senior Lecturer	Oct, 2017-Dec, 2019				
Department of Consumer and Food Sciences (UP)	Associate Professor	Current				

# 2. TEACHING ACTIVITIES

Course	Level (e.g. second year, Masters)	Self developed (Yes or No)
Introduction to food science and technology (FTN1SB1)	N. Dip (First year)	Yes (100%)
Food Technology 2 (FTN2AF2)	N. Dip (Second year)	Yes (100%)
Food Technology 4 (FTN1BF4)	B. Tech	Yes (100%)
Food Product development 4 (FTN1AD4)	B. Tech	Yes, I presented part of the module that to sensory analysis and layout of the New product Development proces (about 20 % of the entire course)
Food project 4 (FTN1BF4)	B. Tech	Involves the supervision of B.Tech research projects. On average I have supervised 4 B. Tech students annually (2014-2019)
Food Chemistry (FST 350)	BSc Third year	Yes, (I present approximately 10 % of the course)
Food Chemistry (FST 351)	BSc Third year	Yes, (I present approximately 100 % of the course)
Principles of the Science and Technology of Plant Foods (FST 360)	BSc Third year	Yes, (I present approximately 10 % of the course)
Food Composition Data and its Application in Nutrition Programmes (VVW 364)	BSc Third year	Yes, (I present approximately 70 % of the course)
Research Methodology and Seminars FST (400/700)	BSc 4 <sup>th</sup> year, Hons & PG (MSc and PhD)	No (presented jointly with other academics in the department but I am the module coordinator)
Advanced Plant Food Science and Technology (FST 402/702)	BSc (Hons)	Yes (I present approximately 20% of the course)
Advanced Food Science (FST 420/720; VVW 420/720)	BSc (Hons) & BSc 4th year	Yes (Some aspects of the course but presented jointly with other academics
Project (FST 463/763)	BSc (Hons)	Yes (Module coordinator and Involves the supervision of honour's research projects

#### 3. TEACHING OUTPUTS

## **Educational publications and products**

- Study guides: Introduction to food science and technology (FTN1SB1), Food Technology 2 (FTN2AF2) and Food Technology 4 (FTN1BF4) are 100% self-developed. Revision of study guides for Food Composition Data and its Application in Nutrition Programmes (VVW 364), Research Methodology and Seminars FST (400/700) and Project (FST 463/763). Contributed to the development of study guides for Advanced Plant Food Science and Technology (FST 402/702) and Advanced Food Science (FST 420/720; VVW 420/720).
- Introduction to food science and technology (FST 250- UP) Module content review
- Contribution to the development of content and learning outcomes of the following courses for the Advance Diploma Food Technology and Honours Food Technology programmes at the University of Johannesburg (2014-2019):

#### Existing courses

- Food Product Development 4 (FTN1AD4-UJ)
- Human Nutrition (FTN1NA2-UJ)

#### New courses

- Advanced Food Science and Technology
- Advances in Food Safety and Toxicology
- Advanced Food Analysis and Instrumentation
- Industry Systems and Management
- Food Packaging
- Contribution to Faculty of Science (UJ) Teaching and Learning "Best Practice" Workshop. Decolonizing the curriculum: Initiatives by the Department of Biotechnology and Food Technology

## 4. INTERNATIONAL SCHOLAR RATING

Google Scholar Metrics		Scopus M	etrics
Citations	1054	Citations	639
h-index	20	h-index	16
i10-index	31		

https://scholar.google.com/citations?user=HpMhv10AAAAJ&hl=en

ORCiD Profile: https://orcid.org/0000-0002-1808-763X

Researchgate profile:

https://www.researchgate.net/profile/Eugenie-Kayitesi

# 5. POSTGRADUATE SUPERVISION

Name of student & Degree	Title of dissertation/ thesis or project (Postdocs)	Supervisor	Co-supervisor(s)	Duration of studies (years)
	Postdo	ctoral Fellows		
Dr SK Panda	Development of probiotic functional foods by fermentation (lactic acid) of local fruits of South Africa	Prof Kayitesi	-	2
Dr KU Eguzozie	Application of molecular phylogeny and selective chromatographic and spectroscopic analytical techniques for the detection and identification of biotoxins from microalgae species in surface waters	Dr Mavumengwana	Prof E Kayitesi	3
Dr OM Ogundele	Functional and Nutritional properties of high energy/nutrient dense composite flour porridges from micronised legumes	Prof Kayitesi	Dr OA Adebo	3
Dr SA Oyeyinka	Physicochemical properties of microwave assisted Bambara groundnuts starch-lipid complexes	Prof Kayitesi	Prof. P Njobeh	2
	Docto	ral students		
OA Adebo	Metabolomics, Physicochemical Properties and Mycotoxin Reduction of Whole grain Ting (a Southern African fermented sorghum product) produced from Natural and Lactic acid bacteria (LAB) Fermentation	Prof E Kayitesi	Prof. P Njobeh	3
SM Moyo	Influence of In Vitro Digestion on the Bioaccessibility and Bioactivity of Phenolic Compounds from Raw and Cooked African Indigenous Green Leafy Vegetables	Prof E Kayitesi	Dr Mavumengwana & Prof MJ Bester	4

JA Adebiyi	Metabolite profile, health beneficial properties and safety of dawadawa (a fermented condiment from Bambara groundnut). Masters students	Prof E Kayitesi	Prof. P Njobeh	3
	Maste	ers students		
MC Temba	Quality evaluation of porridges prepared from maize-groundnut composite flours.	Prof E Kayitesi	Prof. P Njobeh	2
JA Adebiyi	Effect of fermentation and malting on the nutritional, physico-chemical and sensory properties of pearl millet ( <i>Pennisetum glaucum</i> ) flour and pearl millet-based biscuits.	Prof E Kayitesi	Dr AO Obadina	2
SM Moyo	Effects of cooking and drying on the phenolic compounds, antioxidant activity and antibacterial activity of Cleome gynandra (spider plant)	Prof E Kayitesi	Dr V Mavumengwana	2
MGF Khoza	The effectiveness of natural Antioxidants from Marula and Orange peels in stabilizing emulsions (sunflower based salad dressing)	Prof E Kayitesi		2
N Zulu	Addition of Red Palm Olein as Natural Antioxidants to Sunflower Oil: Effect on Frying Quality and Storage Stability of French Fries	Prof E Kayitesi	Dr OM Ogundele	4
NP Sibiya	Nutritional value of selected wild indigenous fruits of southern Africa and their commercial potential.	Prof A Moteetee	Prof E Kayitesi	2
NX Zulu	Phytochemical, antioxidant and antimicrobial activities of Solanum retroflexum, Moringa oleifera and Corchorus olitorius leaf extracts	Dr BC Dlamini	Prof E Kayitesi	2

M Thobakgale	Quality characteristics of a functional beverage developed from Moringa oleifera and Aloe Vera.	Dr BC Dlamini	Prof E Kayitesi	2
SA salatou	Phytochemical quality and antimicrobial efficacy of Solanum retroflexum and Amaranthus cruentus against selected spoilage microorganisms.	Dr E Kayitesi	Dr BC Dlamini	3
L Kafuko	Antioxidant and antimicrobial activity of Carica papaya extracts in minimally processed fresh produce.	Dr NN Mehlomakulu	Prof E Kayitesi	2

Name of student	Degree enrolled for	Project title	Supervisor	Co-supervisor	Year of registr ation
Dr SM Moyo	Postdoctoral Fellow	Characterisation of bioactive peptides from processed Marama beans	Prof E Kayitesi		2021
BK Ndwandwe	PhD	Green synthesis, characterization and preservative properties of selenium nanoparticles embedded in an edible film	Dr BC Dlamini	Prof E Kayitesi Prof S Malinga	2018
MGF Khoza	PhD	Physicochemical characteristics and in vitro starch digestibility of instant Banana breakfast shake made from different Banana cultivars.	Dr BC Dlamini	Prof E Kayitesi	2018
MO Diale	PhD	Genetic and chemical bioprospecting potential of endophytic bacterium Bacillus infantis strain MHSD3 isolated from Pellaea calomelanos.	Dr MH Serepa- Dlamini	Prof E Kayitesi	2019

R Dankwa	PhD	Sensory profiling of sorghum flour, cowpea flour and cassava starch as ingredients for bread products salad dressing.	Prof. HL de Kock	Dr H Aisala Prof E Kayitesi	2019
L Chemane	PhD	Enhancement of iron bioaccessibility of maize porridges by addition of baobab fruit pulp	Prof KG Duodu	Prof E Kayitesi Dr TLJ Magaia	2020
MO Agbomeji	PhD	Preservation and probiotic properties of Sorghum motoho prepared with yeast adjunct cultures	Dr NN Mehlomakulu	Prof. Elna Buys Prof E Kayitesi	2021
N Dlamini	MSc	Bioaccessibility of phenolic compounds and antioxidant properties of soured sorghum porridges	Prof KG Duodu	Prof E Kayitesi	2020
MW Marika	MSc	Development and quality assessment of porridge made from red kidney beans, orange fleshed sweet potatoes and fermented maize composite flour	Prof E Kayitesi	Dr NN Mehlomakulu Prof. HL de Kock	2021
BB Odong	MSc	Flavour chemistry and bioactive properties of common bean (Phaseolus vulgaris L.) protein hydrolysates fermented by Bacillus subtilis SFBA3	Prof E Kayitesi	Prof. Elna Buys	2021

# 6. RESEARCH FUNDING

6.1 Obtaining research funds						
Origin of research funds (e.g. contract research, THRIP, international funding organisations, other(s)	Title of research project or programme	Duration	Money allocated (R)			
University of Johannesburg Research grant (FRC/URC) Grant	Research grant	2015-2019	548,503			
NRF Center for Excellence for food security (CoE) funding	SMART Foods Project	2017-2019	120,000			
NRF Knowledge, Interchange & Collaboration (KIC)	Travel grant	2017 & 2018	40,000			
Research Development Programme Grant (University of Pretoria)	Research grant –Project title "Potential utilization of fruit based waste as alternative source of antioxidants for stabilisation of edible oils and resultant products	2020	50,000			
NRF Rating	Research incentive for NRF rating	2020	50,000			
Partnerships for Innovative Research in Africa (PIRA) grant (In collaboration with Michigan State University and the University of the West Indies )-Principal investigator-UP	Research grant –Project title "Novel Composite Flours for Globally Nutritious Foods",	2021-2022	3,016,340			
Postdoctoral and student fund	ding acquired					
DST-NRF Innovation Postdoctoral Fellowship	Postdoctoral Research Fellowship (1 postdoctoral fellows	2021-2022	320,000			
University of Johannesburg (UJ) Global Excellence and Stature fund	Postdoctoral Research Fellowship (2 postdoctoral fellows).	2015-2019	840, 000			
University of Johannesburg (UJ) Global Excellence and Stature fund	Doctoral Research Fellowship (2 Doctoral and 3 master's students).	2015-2020	600,000			
NRF/DST Innovation Postdoctoral Fellowship	Postdoctoral Research Fellowship (1 fellow).	2015-2017	390, 000			
URC Student grants	2 Masters research grants	2015-2016	260,000			

## 7. RESEARCH OUTPUTS

## 7.1 Publications in peer-reviewed or refereed journals

- 1. Diale, M.O., <u>Kayitesi, E</u> and Serepa-Dlamini MH., 2021. Genome In Silico and In Vitro Analysis of the Probiotic Properties of a Bacterial Endophyte, Bacillus Paranthracis Strain MHSD3. Frontiers in Genetics. https://doi: 10.3389/fgene.2021.672149
- 2. Dankwa, R., Aisala, H., <u>Kayitesi, E</u> and de Kock, H.L., 2021. The Sensory Profiles of Flatbreads Made from Sorghum, Cassava, and Cowpea Flour Used as Wheat Flour Alternatives. Foods, 10, 3095. https://doi.org/10.3390/foods10123095
- 3. Khoza, F.G.M., <u>Kayitesi, E</u> and Dlamini, B.C., 2021. Physicochemical Characteristics, Microstructure and Health Promoting Properties of Green Banana Flour. Foods; 10, 2894.https://doi.org/10.3390/
- 4. Ogundele, O.M., Gbashi, S., Oyeyinka, S.A., <u>Kayitesi, E.</u> and Adebo, O.A., 2021. Optimization of Infrared Heating Conditions for Precooked Cowpea Production Using Response Surface Methodology. Molecules, 26, 6137
- 5. Ndwandwe, B.K., Malinga, S.P, <u>Kayitesi, E</u> and Dlamini, B.C., 2021. Solvothermal synthesis of selenium nanoparticles with polygonal-like nanostructure and antibacterial potential. Materials Letters; doi.org/10.1016/j.matlet.2021.130619
- Oyeyinka, S.A., Oyedeji, A.B., Ogundele, O.M., Adebo, O.A., Njobeh, B.P and <u>Kayitesi, E</u>, 2021. Infrared heating under optimized conditions enhanced the pasting and swelling behaviour of cowpea starch. International Journal of Biological Macromolecules 184, 678-688
- 7. Odukoya, J.O, <u>Kayitesi, E</u>, Mphahlele, M.P, Tata, M.C, Njinkoue, J.M, Gouado, I, Ikhile, M.I and Ndinteh, D.T, 2021. Contribution of the volatile components from fresh egg, adult female and male of *Pestarella tyrrhena* to odour production. Physical Sciences Reviews, doi.org/10.1515/psr-2020-0144
- 8. Adebiyi, J.A., Njobeh, P.B, <u>Kayitesi, E</u> and Adebo, O.A. 2021. GC-HRTOF-MS dataset of metabolites extracted from sorghum and ting (a fermented product) produced using two strains of *Lactobacillus fermentum* (singly and in combination). Data in Brief, 36, 107102
- 9. Ndwandwe, B.K., Malinga,S.P, <u>Kayitesi, E</u> and Dlamini, B.C., 2021. Advances in green synthesis of selenium nanoparticles and their application in food packaging. International Journal of Food Science and Technology. doi.org/10.1111/ijfs.14916
- 10. Zulu, N., <u>Kayitesi, E</u>. and Ogundele, O.M., 2021), "Chemical and deep-frying oxidative stability of sunflower–red palm olein blends", British Food Journal, doi.org/10.1108/BFJ-09-2020-0837
- 11. Sibiya, N.P., <u>Kayitesi, E</u> and Moteetee, A, 2021. Proximate Analyses and Amino Acid Composition of Selected Wild Indigenous Fruits of Southern Africa. Plants, 10, 721
- 12. Adebiyi, J.A., Njobeh, P.B, Adebo, O.A. and <u>Kayitesi, E</u> 2021. Metabolite profile of Bambara groundnut (*Vigna subterranea*) and dawadawa (an African fermented condiment) investigation using gas chromatography high resolution time-of-flight mass spectrometry (GC-HRTOF-MS). Heliyon, doi.org/10.1016/j.
- 13. Oyeyinka, S.A., Adepegba, A.A., Oyetunde, T.T., Oyeyinka, A.T., Olaniran, A.F., Yetunde M. Iranloye, Y.M., Olagunju O.F., Manley, M., <u>Kayitesi, E</u> and Njobeh, B.P., 2021. Chemical, antioxidant and sensory properties of pasta from fractionated whole wheat and Bambara groundnut flour. LWT-Food Science and Technology, doi.org/10.1016/j.lwt.2020.110618

- 14. Oyeyinka, S.A., Akintayo, O.A., Adebo, O.A., <u>Kayitesi, E</u> and Njobeh, B.P, 2021. A review on the physicochemical properties of starches modified by microwave alone and in combination with other methods. International Journal of Biological Macromolecules 176 (2021) 87–95
- 15. Odukoya, J.O, <u>Kayitesi, E</u>, Mphahlele, M.P, Tata, M.C, Njinkoue, J.M, Gouado, I, Ikhile, M.I and Ndinteh, D.T,2021. Effect of processing methods on the volatile components of *Ethmalosa fimbriata* using a two-dimensional gas chromatography-time-of-flight mass spectrometry (GC × GC-TOF-MS) technique. Journal of Food Processing and Preservation, DOI: 10.1111/jfpp.15110
- 16. Ogundele, O.M., Muazu, S.T., Oyedeji, A.B., Kayitesi, E., Njobeh, P.B. and Oyeyinka, S.A. 2021. Chemical, functional, pasting and sensory properties of custard from refrigerated cassava root", British Food Journal 123, 509-519
- 17. Moyo, S.M., Serem, J.C., Bester, M.J., Mavumengwana, V and <u>Kayitesi, E.</u> 2021. Hydrothermal Processing and In Vitro Simulated Human Digestion Affects the Bioaccessibility and Bioactivity of Phenolic Compounds in African Pumpkin (*Momordica balsamina*) Leaves. Molecules, doi.org/10.3390/molecules26175201
- 18. Oyeyinka, S.A., Akinware, R.O., Bankole, A.T., Njobeh, B.P and <u>Kayitesi, E.,</u> 2021. Influence of microwave heating and time on functional, pasting and thermal properties of cassava starch. International Journal of Food Science and Technology 56, 215–223.
- 19. Oyeyinka, S.A., <u>Kayitesi, E.,</u> Adebo, O.A., Oyedeji, A.B., Ogundele, O.M., Obilana, A.O and Njobeh, B.P, 2021. A review on the physicochemical properties and potential food applications of cowpea (Vigna unguiculata) starch. International Journal of Food Science and Technology 56, 52–60
- 20. Moyo, S.M., Serem, J.C., Bester, M.J., Mavumengwana, V and <u>Kayitesi, E,</u> 2020. The impact of boiling and in vitro human digestion of Solanum nigrum (Black nightshade) on phenolic compounds bioactivity and bioaccessibility. Food Research International <a href="https://doi.org/10.1016/j.foodres.2020.109720">https://doi.org/10.1016/j.foodres.2020.109720</a>
- 21. Moyo, S.M., Serem, J.C., Bester, M.J., Mavumengwana, V and <u>Kayitesi, E.</u> 2020. African Green Leafy Vegetables Health Benefits Beyond Nutrition. *Food Reviews International*, DOI: 10.1080/87559129.2020.1717519.
- 22. Adebiyi, J.A., <u>Kayitesi, E</u> and Njobeh, P.B, 2020. Mycotoxins reduction in dawadawa (an African fermented condiment) produced from Bambara groundnut (*Vigna subterranea*). Food Control 112; 107-141
- 23. Sibiya, N.P., <u>Kayitesi, E</u> and Moteetee, A, 2020. Mineral composition of selected indigenous wild southern African fruits. South African Journal of Botany 132; 87-94.
- 24. Kewuyemi, Y.O., Njobeh, P.B., <u>Kayitesi, E.</u>, Adeyinka, J.A. Oyedeji, A.B., Adefisoye, M.A., and Adebo, O.A., 2020. Metabolite profile of whole grain ting (a Southern African fermented product) obtained using two strains of Lactobacillus fermentum. Journal of cereal science, https://doi.org/10.1016/j.jcs
- 25. Oyeyinka S, A, Adeloye, A,A, Olaomo,O,O and <u>Kayitesi E,</u> 2020. Effect of fermentation time on physicochemical properties of starch extracted from cassava root. Food Biosciences 33, 100485.

- 26. Moyo, S.M., Serem, J.C., Bester, M.J., Mavumengwana, V and <u>Kayitesi, E.</u> 2020. Influence of boiling and subsequent phases of digestion on the phenolic content, bioaccessibility, and bioactivity of *Bidens pilosa* (Blackjack) leafy vegetable. Food Chemistry 311, 126023
- 27. Adebiyi, J.A., Njobeh, P.B and <u>Kayitesi, E.</u> 2019. Assessment of nutritional and phytochemical quality of Dawadawa (an African fermented condiment) produced from Bambara groundnut (Vigna subterranea). *Microchemical Journal*, Volume 149, 104034)
- 28. Adebo, O.A., <u>Kayitesi, E., Njobeh</u>, P.B and Tugizimana., F, 2019. Differential metabolic signatures in naturally and lactic acid bacteria (LAB) fermented ting (a Southern African food) with different tannin content, as revealed by gas chromatography mass spectrometry (GC–MS)-based metabolomics. *Food Research International* 121, 326-335.
- 29. Adebiyi, J.A., <u>Kayitesi, E.,</u> 4. Adebo, O.A., Changwa, R and Njobeh, P.B, 2019. Food fermentation and mycotoxin detoxification: An African perspective. *Food Control* (Volume 106, 106731).
- 30. Adebo, O.A., <u>Kayitesi, E</u>, and Njobeh, P.B, 2019. Reduction of Mycotoxins during Fermentation of Whole Grain Sorghum to Whole Grain Ting (a Southern African Food). *Toxin*, https://doi.org/10.3390/toxins11030180.
- 31. Ogundele, O.M. and <u>Kayitesi, E, 2019.</u> Influence of infrared heating processing technology on the cooking characteristics and functionality of African legumes: a review. *Journal of Food Science and Technology.* https://doi.org/10.1007/s13197-019-03661-5
- 32. Adebo, O.A., Njobeh, P.B., Adebiyi, J.A., and <u>Kayitesi, E</u>, 2018. Co-influence of fermentation time and temperature on physicochemical properties, bioactive components and microstructure of ting (a Southern African food) from whole grain sorghum. *Food Biosciences* 25, 118–127.
- 33. Adebo, O.A., Njobeh, P.B and <u>Kayitesi, E, 2018</u>. Fermentation by Lactobacillus fermentum strains (singly and in combination) enhances the properties of ting from two whole grain sorghum types. *Journal of Cereal Science* 82; 49–56.
- 34. Adebo, O.A., Njobeh, P.B., Desobgo, S.C.Z., Pieterse, M., <u>Kayitesi, E</u> and Ndinteh, D.T.,2018. Profiling of volatile flavor compounds in Nkui (a Cameroonian food) by solid phase extraction and 2D gas chromatography time of flight mass spectrometry (SPME- GC×GC- TOF- MS). Food Science and Nutrition, DOI: 10.1002/fsn3.736.
- 35. Panda, S.K, Ray, R.C, Mishra, S.S and <u>Kayitesi, E.</u> 2018. Microbial processing of fruit and vegetable wastes into potential biocommodities: a review, *Critical Reviews in Biotechnology*, DOI: 10.1080/07388551.2017.1311295.
- 36. Adebiyi, J.A., Adebo, O.A., Obadina, A.O., Mulaba-Bafubiandi, A.F. and Kayitesi, E, 2018. Effect of fermentation and malting on the microstructure and selected physicochemical properties of pearl millet (Pennisetum glaucum) flour and biscuit. Journal of Cereal Science. 70, 132-139.
- 37. Moyo, S.M., Mavumengwana, V and Kayitesi, E, 2018. Effects of Cooking and Drying on Phenolic Compounds and Antioxidant Activity of African Green Leafy Vegetables. Food Reviews International, 1-17.
- 38. Adebo, O.A., Njobeh, P.B., Mulaba-Bafubiandi, A.F., Adebiyi, J.A., Desobgo, S.C.Z. and <u>Kayitesi, E</u>, 2018. Optimization of fermentation conditions for ting production using response surface methodology. *Journal of Food Processing and Preservation*, DOI: 10.1111/jfpp.13381

- 39. Adebiyi, J.A., Adebo, O.A., Obadina, A.O. and Kayitesi, E, 2018. Fermented and malted millet products in Africa: Expedition from traditional/ethnic foods to industrial value-added products. Critical Reviews in Food Science and Nutrition. DOI: 10.1080/10408398.2016.1188056.
- 40. Adebiyi, J.A., Obadina, A.O., Adebo, O.A. and <u>Kayitesi, E</u>, 2017. Comparison of nutritional quality and sensory acceptability of biscuit obtained from native, fermented, and malted pearl millet (*Pennisetum glaucum*) flour. *Food Chemistry*; 232, 210–217.
- 41. Temba, M.C., Njobeh, P., Ndinteh, D and <u>Kayitesi, E., 2017.</u> Nutritional quality of maize-groundnut composite flours and resultant porridges. *Nutrition & Food Science*; 47, 318-33.
- 42. Panda, S.K., Behera, S.K., Witness Qaku, X., Sekar, S., Ndinteh, D.T., Nanjundaswamy, H.M., Ray, R.C. and <u>Kayitesi</u>, E, 2017. Quality enhancement of prickly pears (Opuntia sp.) juice through probiotic fermentation using *Lactobacillus fermentum* ATCC 9338. *LWT Food Science and Technology*. 75, 453-459.
- 43. Temba, M.C., Njobeh, P.B. and <u>Kayitesi, E</u>, 2017. Storage stability of maize-groundnut composite flours and an assessment of aflatoxin B1 and ochratoxin A contamination in flours and porridges. *Food Control.* 71, 178-186.
- 44. Temba, M.C., Adebo, O.A., Njobeh, P.B. and <u>Kayitesi, E</u>, 2016. Alleviation of protein energy malnutrition in Africa using composite cereal and legume flours. *International Journal of Food Science and Technology*. 51, 543-554.
- 45. Eguzozie, K., Mavumengwana, V., <u>Kayitesi, E</u>. and Nnabuo-Eguzozie N, 2016. Screening of Cyanobacterial Peptide Toxin, Microcystins in Hyperscum Water Samples from an Inland Sub Saharan Drinking Freshwater Reservoir. *Bulletin of Environmental Contamination and Toxicology*, 97, 728-736.
- 46. Panda, S.K., Mishra, S.S., Ray, R.C. and <u>Kayitesi, E</u>, 2016. Microbial-processing of fruit and vegetable wastes for production of vital enzymes and organic acids: biotechnology and scopes. *Environmental Research*. 146, 161–172.
- 47. Eguzozie, K., Mavumengwana, V., Nkosi, D., <u>Kayitesi, E</u>. and Nnabuo-Eguzozie, E. 2016. Bioaccumulation and Quantitative Variations of Microcystins in the Swartspruit River, South Africa. *Archives of Environmental Contamination and Toxicology*. 71, 286-296.
- 48. Panda, S.K., Panda, S.H., Swain, M.R., Ray, R.C. and <u>Kayitesi, E</u>, 2015. Anthocyanin-rich sweet potato (*Ipomoea batatas L.*) beer: Technology, Biochemical and Sensory evaluation. *Journal of Food Processing and Preservation*. 39, 3040-3049.
- 49. Panda, S.K., Behera, S.K., Mulaba-Bafubiandi, A.F., Panda, S.H., Swain, M.R., Ray, R.C. and <u>Kayitesi, E,</u> 2015. Bioprocessing of jackfruit (*Artocarpus heterophyllus L.*) pulp into wine: Technology, Proximate composition and Sensory evaluation. *African Journal of Science, Technology, Innovation and Development.* 8, 27-32.
- Ongol, M.P., Owino, J., <u>Kayitesi, E.,</u> Dusingizimana, T., Uwiringiyimana, V., Habimana, V. and Ndayambaje, V, 2015. Retention of micro-minerals and degradation of anti-nutritional compounds during the traditional Rwandan bean cooking process. *European Journal of Nutrition and Food Safety.* 5, 1076-1077
- 51. <u>Kayitesi, E.,</u> Duodu. K.G., Minnaar, A. and De Kock, H.L, 2012. Effect of micronisation of preconditioned cowpeas on cooking time and sensory properties of cooked cowpeas. *Journal of the Science of Food and Agriculture*. 93, 838-845.

- 52. <u>Kayitesi, E.,</u> Duodu, K.G., Minnaar, A. and De Kock, H.L., 2012. Nutritional quality and antioxidant activity of marama–sorghum composite flours and porridges. *Food Chemistry*. 131, 837-842.
- 53. <u>Kayitesi. E.,</u> Duodu. K.G., Minnaar, A. and De Kock, H.L, 2010. Sensory quality of maramasorghum composite porridges. *Journal of the Science of Food and Agriculture.* 90, 2124-2132

# 7.2 Books and/or chapters in books

- 54. Oyedeji, A.B., Oladunjoye, A.O., Oluwatosin A. Ijabadeniyi, O.A. and <u>Kayitesi, E.,</u> 2021. Chapter 8: Phytochemicals in Bambara Groundnut. In Oyeyinka, S.A and Ade-Omowaye B.I.O.(Eds.), Food and Potential Industrial Applications of Bambara Groundnut, https://doi.org/10.1007/978-3-030-73920-1\_6
- 55. Oyeyinka, S.A., <u>Kayitesi, E.</u>, Diarra, E.S., Adedeji, A.A., Amonsou, E.O., and Suren Singh, S., 2021. Chapter 6: Bambara Groundnut Starch. In Oyeyinka, S.A and Ade-Omowaye B.I.O. (Eds.), Food and Potential Industrial Applications of Bambara Groundnut, https://doi.org/10.1007/978-3-030-73920-1\_6
- 56. Duodu, K.G., Lubaale, J. and Kayitesi, E., 2021. Chapter 11: Developing millet-based cereal products with enhanced nutritional properties. In Beta, T (Ed.). Improving the nutritional and nutraceutical properties of wheat and other cereals; ID: 9781801461580
- 57. <u>Kayitesi, E.,</u> Behera, S.K., Panda, S.K., Dlamini, B.C and Mulaba-Bafubiandi, A.F (2017) Amasi and Maheu: Expedition from Ethnic Southern African Food to Cosmopolitan Markets. In Ray, R.C & Montet, D (Eds.). Fermented Foods Part II: Technological Intervention; pp. 384-399. CRC press, New York USA.
- 58. Behera, S.K., Panda, S.K., <u>Kayitesi, E.</u> and Mulaba-Bafubiandi, A.F (2017). Kefir and Koumiss. In Ray, R.C. & Montet, D (Eds.). Fermented Foods Part II: Technological Intervention; pp. 400-414. CRC press, New York USA.
- 59. Adebo OA, Njobeh PB, Adebiyi JA, Gbashi S, Phoku JZ, and Kayitesi E, 2017. Fermented pulse-based food products in developing nations as functional foods and ingredients. In Hueda, M.C (Ed.). Functional Food—Improve Health through Adequate Food; pp. 77–109 InTech: Rijeka, Croatia.
- 60. Adebo OA, Njobeh PB, Adebiyi JA, Gbashi S, and <u>Kayitesi, E</u> (2017). Food metabolomics (Foodomics), a new frontier in food analysis and its potential in understanding fermented foods. In Hueda, M.C (Ed.). Functional Food—Improve Health through Adequate Food; pp. 211–234. InTech: Rijeka, Croatia.
- 61. Adebo OA, <u>Kayitesi E</u>, Adebiyi JA, Gbashi S, Temba MC, Lasekan A, Phoku JZ and Njobeh, PB E (2017). Mitigation of Acrylamide in Foods: An African Perspective. In Hueda, M.C (Ed.). Functional Food—Improve Health through Adequate Food; pp. 151–174. InTech: Rijeka, Croatia.
- 62. Adebo, O.A., Njobeh, P.B., Adeboye, A.S., Adebiyi, J.A., Sobowale, S.S., Ogundele, O.M., <u>Kayitesi, E (2018)</u>. Advances in fermentation technology for novel food products. In Innovations in technologies for fermented food and beverage industries; S. Panda, & P. Shetty (Eds.). (pp. 71–87). Springer, Switzerland.

# 7.3 Published full-length conference papers/keynote addresses

63. Moyo, S.M., Mavumengwana, V., Madala, N.E. and <u>Kayitesi, E</u>. Effects of cooking and drying on the total phenolic, total flavonoid content, antioxidant and antibacterial activity of *Cleome gynandra* (spider plant). International Conference on Advances in Science, Engineering, Technology and Natural Resources (ICASETNR), Parys, South Africa. 24-25 November 2016.

# 7.4 Technical reports

<u>Kayitesi. E</u>. (2011-2012). Technical report on phytochemical quality of cowpea types – formed part of progress report for USAID funded Dry Grain Pulse CRSP programme.

#### 8. OTHER SCHOLARLY RESEARCH-BASED CONTRIBUTIONS

8.1 Participation in conferences, workshops and short courses - specify type of contribution

Provide full details of participation in national and international conferences etc

#### 8.1.1 International

#### 8.1.1.1. Invited presentations at Conferences

 <u>Kayitesi, E.,</u> Obadina, A.O and Adebiyi JA. Fermented millet and sorghum based products in Africa: Expedition from traditional/ethnic foods to industrial value added products. TWAS 14th General Conference & 28th General Meeting. Trieste, Italy. 27-29 November

### 8.1.1.2. Other oral presentations at Conferences

- 2. Moyo, SM, Bester, MJ, Mavumengwana, V and Kayitesi, E. Influence of in-vitro simulated oral, gastric and duodenal digestion on bioaccessibility and bioactivity of phenolic compounds in raw and boiled Bidens pilosa (Blackjack). 33rd EFFoST International Conference. Rotterdam, Netherlands, 12-14 November 2019.
- Khoza MGF and Kayitesi E. Efficiency of Marula and Orange peel extracts as natural antioxidants for Stabilization of sunflower oil-based salad dressing. 23rd South African Association of Food Science and Technology (SAAFoST) Congress, Johannesburg, South Africa. 1<sup>st</sup> – 4<sup>th</sup> September 2019.
- Kayitesi, E and Moyo SM. Influence of boiling and in vitro digestion on the phenolic Bioaccessibility and microstructure of Bidens Pilosa (Black jack) an African green leafy vegetable. IUFoST World Food Science and Technology 19TH Congress. Mumbai, India. 23<sup>rd</sup> – 27<sup>th</sup> October 2018.
- Kayitesi, E., Obadina, A.O and Adebiyi JA. Fermented and malted millet products in Africa: Expedition from traditional/ethnic foods to industrial value-added products. LACC4 - 4th Latin America Cereals Conference. Mexico City, Mexico. 11 - 14 March 2018
- Moyo, S.M., Mavumengwana, V., Madala, N.E. and <u>Kayitesi, E</u>. Effects of cooking and drying on the total phenolic, total flavonoid content, antioxidant and antibacterial activity of Cleome gynandra (spider plant). International Conference on Advances in Science, Engineering, Technology and Natural Resources (ICASETNR), Parys, South Africa. 24-25 November 2016

#### 8.1.1.2. Poster presentations at Conferences

- Adebo, O.A., <u>Kayitesi, E</u> and Njobeh, P.B. Gas Chromatography High Resolution Time of Flight Mass Spectrometry (Gc- Hrtof-Ms) untargeted metabolomics of Ting (a sorghum fermented food product). 19th World Congress of Food Science and Technology (IUFoST 2018), Mumbai, India. 23rd – 27th October 2018.
- 2. Moyo, S.M., Mavumengwana V and <u>Kayitesi, E</u>. Influence of boiling and In vitro digestion on phenolics and Microstructure of Biden Pilosa (Black Jack) an African green Leafy Vegetable. 19th World Congress of Food Science and Technology (IUFoST 2018), Mumbai, India. 23rd 27th October 2018.

- 3. Adebiyi, J.A., <u>Kayitesi, E</u> and Njobeh, P.B. Mycotoxin reduction in dawadawa (a fermented condiment) from Bambara groundnut (Vigna subterranea). 19th World Congress of Food Science and Technology (IUFoST 2018), Mumbai, India. 23rd 27th October 2018.
- 4. Adebo, O.A., Njobeh, P.B., Adebiyi, J.A., <u>Kayitesi, E</u>. Optimization of fermentation conditions of sorghum for the production of ting: effects on physicochemical properties and microstructure. 22<sup>nd</sup> Biennial International Congress and Exhibition of South African Association of Food Science and Technology (SAAFoST), Cape Town, South Africa. 3–6 September 2017.
- 5. Moyo, S.M., Madala, E., Mavumengwana V and <u>Kayitesi, E</u>. Effects of Cooking and Drying on the Flavonoid Content of *C. gynandra* (Spider Plant). 22<sup>nd</sup> Biennial International Congress and Exhibition of South African Association of Food Science and Technology (SAAFoST), Cape Town, South Africa. 3–6 September 2017.
- Adebiyi, J.A., Obadina, A.O., Adebo, O.A., <u>Kayitesi, E</u>. Nutritional quality and sensory acceptability of biscuits obtained from fermented and malted pearl millet (Pennisetum glaucum) flour. 22<sup>nd</sup> Biennial International Congress and Exhibition of South African Association of Food Science and Technology (SAAFoST), Cape Town, South Africa. 3 – 6 September 2017.
- 7. Adebo, O.A., Njobeh, P.B., Adebiyi, J.A., <u>Kayitesi, E.</u> Optimizing fermentation conditions (time and temperature) of sorghum into ting: effects on health promoting and physicochemical properties. Institute of Food Technologists (IFT) Conference and Food Expo, Las Vegas, USA. 25 28 June 2017.
- 8. Adebiyi, J.A., Obadina, A.O., Adebo, O.A., <u>Kayitesi, E.</u> Effect of fermentation and malting on the nutritional and sensory quality of pearl millet (Pennisetum glaucum) flour and resultant biscuits. Institute of Food Technologists (IFT) Conference and Food Expo, Las Vegas, USA. 25 28 June 2017.
- 9. <u>Kayitesi, E.,</u> De Kock, H.L., Minnaar, A., Duodu, K.G, Effects of micronization on phenolic compounds and radical scavenging properties of cowpeas. International Union of Food Science and Technology (IUFOST) congress, Dublin, Ireland. 21- 25 August 2016.
- 10. Adebiyi, J.A., Obadina, A.O., Adebo, O.A., <u>Kayitesi, E</u>. Effect of fermentation and malting on selected physicochemical properties of millet flour and biscuit. Presented at the 18th World Congress of Food Science and Technology (IUFoST), Dublin, Ireland. 21 25 August 2016.
- 11. Temba, M.C., Njobeh, P.B. and <u>Kayitesi, E.</u> Storage stability of maize-groundnut flours and assessment of the occurrence of mycotoxins in composite flours and resultant porridges. International Union of Food Science and Technology (IUFOST) congress, Dublin, Ireland. 21-25 August 2016
- 12. Nkabinde, F., <u>Kayitesi, E.,</u> Njobeh, P.B., Adebiyi, J.A., Adebo, O.A. Quality evaluation of a fermented juice from Cape gooseberry fruits (Physals Peruvianna). Autumn International Scientific Conference on Food Safety and Security (FSaS), Johannesburg, South Africa. 16–18 May 2016.
- 13. Khoza, M.F.G., Adebo, O.A., <u>Kayitesi</u>, E. The Effect of heat processing on the phenolic content and antioxidant activity of marula (Sclerocarya Birrea) juice. Autumn International Scientific Conference on Food Safety and Security (FSaS), Johannesburg, South Africa. 16 18 May 2016.
- 14. Moyo S. M, Mavumengwana V and <u>Kayitesi E</u>. Effects of cooking and drying on antioxidant activity and antimicrobial activity of *Cleome gynandra*. Autumn International Scientific Conference on Food Safety and Security (FSaS), Johannesburg, South Africa. 16 18 May 2016

- 15. <u>Kayitesi, E.</u>, De Kock, H.L., Duodu K.G and Minnaar, A. Effects of micronisation on cowpea phenolic compounds and potential health promoting properties. Global Pulse Researchers Meeting 2012, Kigali, Rwanda. 13 17 February 2012.
- 16. Mothupi. O., <u>Kayitesi. E.,</u> Kinnear. M., Minnaar, A and De Kock. H. L. Micronised cowpeas: Are they acceptable to consumers in South Africa? European Sensory Network at the 10<sup>th</sup> Pangborn Sensory Science Symposium Rio De Janeiro, Brazil. 11-15 August, 2013.
- 17. <u>Kayitesi, E.</u>, De Kock, H.L., Duodu K.G and Minnaar, A. Total phenolics and antioxidant activity of marama-sorghum composite flours and porridges. CST-SA ICC international grains symposium, University of Pretoria, South Africa. 3–5 February 2010.
- 18. <u>Kayitesi, E.</u>, De Kock, H.L., Duodu K.G and Minnaar, A. Sensory properties and consumer acceptance of marama-sorghum composite porridges. Pangborn sensory science symposium, Stazione Leopolda, Florence, Italy. 26-30 July 2009.

#### 8.1.2 National

## 8.1.2.1. Invited presentations at Conferences

 Kayitesi. E and De Kock. H. L. Is sensory food science only for affluent societies where consumers can afford themselves the luxury of optimized sensory properties? Sensory Forum for SAAFOST northern branch lecture, Pretoria, South Africa. 27 October 2011.

#### 8.1.3. Attendance of selected workshops and courses

- STS forum, Science and Technology in Society forum (STS forum Young Leaders Program and the 16th annual meeting, 2019 Kyoto, Japan
- TWAS 14th General Conference & 28th General Meeting. 2018, Trieste, Italy.
- LACC4 4th Latin America Cereals Conference. Mexico City, Mexico, 2018
- International Union of Food Science and Technology (IUFOST) world congress in 2010 (Cape Town, South Africa); 2016 (Dublin, Ireland) and 2018 (Mumbai, India)
- Presentation at Faculty of Science (UJ) Teaching and Learning "Best Practice" Workshop.
   Decolonizing the curriculum: Initiatives by the Department of Biotechnology and Food Technology (2018)
- Autumn International Scientific Conference on Food Safety and Security (FSaS) 2016, Johannesburg, South Africa.
- World scientific cowpea conference 2010, Dakar Senegal
- Leadership skills training, African Women in Agricultural Research and Development (AWARD) 2010, Lilongwe, Malawi
- Chemometrics training: Use of multivariate models (PCA's and PLS) for data analysis 2010, University of Stellenbosch, Cape Town South Africa.
- Mentoring workshop, African Women in Agricultural Research and Development (AWARD)
   2009, Mombasa, Kenya

#### 8.2 Teamwork and collaboration with others:

Other researchers (national and international)

8.2.1. Selected current and past collaborators:

#### 8.2.1.1 International collaborators:

## 8.2.1.1.1 Michigan State University (USA)

Dr Sharon Hooper

Dr Karen Cichy

Dr Raymond Glahn

# 8.2.1.1.2 The University of the West Indies (Jamaica)

Dr Ian Thompson

Dr Patrice Peart

Dr Noureddine Benkeblia

# 8.2.1.1.3 <u>ICAR Regional Centre of Central Tuber Crop Research Institute, Bhubaneswar, Orissa, India</u>

Prof RC Ray

#### 8.2.1.1.4 Collaborators in Rwanda

Dr MP Ongol (University of Rwanda & UK- Department for International Development Rwanda country office)

Mr JB Kwizera (Health Equity and Rights Organisation- Rwanda)

#### 8.2.1.2 National/South African collaborators:

#### 8.2.1.2.1 University of Pretoria (internal collaborators)

Prof KG Duodu (Food and Consumer Science)

Prof HL de Kock (Food and Consumer Science)

Prof EM Buys (Food and Consumer Science)

Dr NN Mehlomakulu (Food and Consumer Science)

Prof MJ Bester (Anatomy Department)

Dr JC Serem (Anatomy Department)

## 8.2.1.2.2 University of Johannesburg

Prof A Moteetee (Department: Botany and Plant Biotechnology)

Prof PB Njobeh (Department of Biotechnology and Food Technology)

Prof BD Simo-Kengne (School of Economics)

Dr BC Dlamini (Department of Biotechnology and Food Technology)

Dr AO Adebo (Department of Biotechnology and Food Technology)

Dr H Kesa (School of Tourism and Hospitality Management & Food Evolution Research Laboratory (FERL))

Dr J Uwiingiye (School of Economics)

Dr MH Serepa-Dlamini (Department of Biotechnology and Food Technology)

Dr S Malinga (Chemical Sciences)

Prof DT Ndinteh (Chemical Sciences)

## 8.2.1.2.3 University of Stellenbosch

Dr V Mavumengwana (South African Medical Research Council Centre for Tuberculosis Research, Department of Biomedical Sciences)

# 8.2.1.2.4 <u>Human Sciences Research Council (HSRC) and Agricultural Research Council (ARC)</u>

Dr Palesa Sekhejane (HSRC)

Dr Pakela-Jezile Yolisa (ARC)

#### 8.2.1.2.5 University of Venda

Dr NE Madala (Department of Biochemistry)

#### 8.2.1.2.6 University of Mpumalanga

Dr OC Wokadala (School of Agricultural sciences)

## 8.3 Membership in national and international bodies

- 1. South Africa Association of Food Science Professionals (SAAFoST) Professional member
- 2. Institute of Food Technologists (IFT) Professional member
- 3. Rwanda Young Academy of Science (RYAS)- Founding member
- 4. The World Academy of Science Young Affiliates Network (TYAN)
- 5. Rwandan Association of Woman in Science and Engineering-Member
- 6. International Fellowship of Evangelical students IFES-Rwanda, Member (2001 to 2005)

#### 10. MANAGEMENT AND ADMINISTRATIVE DUTIES

- 10.1 List your involvement in departmental activities (e.g. administrative functions), faculty (e.g., Faculty Committees) or other university activities.
- 1. Department representative at the Faculty of Natural and Agricultural sciences, University of Pretoria, South Africa (current).
- 2. Deputy Head of department: Biotechnology and Food Technology Faculty of Science, University of Johannesburg, South Africa (2018)
- 3. Committee member: Faculty of Science Teaching and Learning committee, University of Johannesburg, South Africa (2018)
- 4. Committee member: Faculty of Science ethics committee, University of Johannesburg (2014-2019)
- 5. Member of the organising committee and co-chair of the scientific committee for the Autumn International Scientific Conference on Food Safety and Security (FSaS) 2016, Johannesburg, South Africa.
- 6. President and Executive Secretary, IFES-Rwanda (GBU KIST/KHI chapter) from 2002 to 2004

#### 11. COMMUNITY SERVICE OR PROFESSIONAL SKILLS

## 11.1 Outreach projects

#### 11.1.1. Community outreach projects

- 1. Advisory Board member for the Food Evolution Research Laboratory (FERL). A virtual laboratory that is an essentially go to guide to direct and influence the thinking, choices and decisions built around health and nutrition.
- Board member of Health Equity and rights organization (HERO). HERO is a non-government and nor-profit organization based in Nyamata, Bugesera (Eastern province, Rwanda). 2018present). Currently involved in a project on "Crop diversification, household welfare and food insecurity risk management: Evidence from Rwanda"
- 3. North West Province (South Africa) 2015. Community based fish processing project in collaboration with Rhodes University. The project aimed at adding value to fish-based products through processing designed for primary school feeding scheme.

#### 11.2 Professional service performed

#### 11.2.1. TV and Radio interviews

- 2020: Featured in Destiny magazine (Jan/Feb 2020 Issue 2)
- Panelist on BBC World Service & BBC Radio 4 programme (The Food Chain)
- Featured in the Southern Africa Network for Bioscience (SANBio) publication under the title "Integrating Traditional and Modern Food Processing Technologies: Profiling Dr Eugénie Kayitesi
- 2016: Press conference with Media representatives on the 2016 International Food Safety and Security Conference
- 2015: University of Johannesburg representative on eNCA (news channel) as an expert in the field of food and nutrition security.

#### 11.4 Involvement with other universities/scientific institutions

- External examiner/Moderator for the modules FST 400/700 (Seminar and Oral examination) and FST 463/763 (Research Project) Department of Consumer and Food Sciences (University of Pretoria-2018).
- 2. External examiner/Moderator for the modules ADVANCED FOOD TECHNOLOGIES (AFT107) and FOOD COMPONENTS (FOO107V)- Tshwane University of Technology
- External examiner/Moderator for Fruit and Vegetable Technology module (FST/FSN 4641)
   Department of Food Science Technology (University of Venda).
- 4. External examiner/Moderator for Food Technology 4 (FTE 400S) Department of Food Science Technology (Cape Peninsula University of Technology 2018-2019).

#### 11.5 Referee duties

Served as External examiner for PhD theses and master's dissertations from various Universities in South Africa (UP, CPUT, UNIVEN, UFS, DUT, TUT, Egerton University (Kenya) and UNISA).

#### Dissertations/Theses examined:

- i. MSc Food Science (University of Pretoria). Phenolic antioxidant composition and functional properties of flours from hot air-assisted microwaved cowpea seeds. <u>Candidate: SF Mokatso.</u>
- ii. PhD Food Science (University of Pretoria). Nutritional and functional properties of soaked and micronized Bambara groundnut seeds and their flours. <u>Candidate: OM Ogundele.</u>
- iii. MSc in Agriculture (University of South Africa). The development of Amadumbe (*Colocasia esculenta (L.) schott*) soya composite biscuits with improved nutritional and sensory properties. <u>Candidate: TM Mokhele.</u>
- iv. MSc Nutrition (University of Pretoria). Antioxidant content and activity of selected African leafy green vegetables in the gastrointestinal tract (GIT): Determination using simulated GIT digestion. Candidate: SM Khumalo.
- v. MSc Food Science and Technology (Cape Peninsula University of Technology). Chemometrics and Sensory characteristics of pearl millet beverage produced with Bioburden lactic acid bacteria pure cultures. <u>Candidate: MA RATAU.</u>
- vi. MSc Anatomy with specialisation in Human Cell Biology (University of Pretoria). An exploratory investigation on the bioactivity of in vitro digested, commercially fermented maize product (Mageu). Candidate: H Nathu.
- vii. PhD Food Science (University of Pretoria). Utilisation of marama bean [Tylosema esculentum (Burchell) A. Schreiber] flour in gluten-free bread making. <u>Candidate: PM Nyembwe.</u>
- viii. MSc Food Science and Technology (University of Venda). Influence of Heat-Moisture treatment on Functional, Colour and Thermal properties of Bambara groundnuts starch. Candidate: MATHOBO VM
- ix. Masters of Applied Sciences in Food Science and Technology (Durban University of Technology). Characterisation of Bambara protein-polysaccharide complex coacervates and their application in encapsulation of bioactive compounds. <u>Candidate: Busu NM</u>
- x. MSc Food Science (University of the Free State). Classification and Spoilage Characteristics of Chryseobacterium Isolates from Fish. <u>Candidate: Gavu LM</u>
- xi. Doctor of philosophy in Sciences: Agriculture (Tshwane University of Technology).Influence of postharvest processing and food preparation methods on physicochemical, phytochemical properties and antidiabetic activity of traditional leafy vegetables. Candidate:Managa GM
- xii. MSc Food Science (Egerton University). Essential micronutrient composition, chemical safety and sensory properties of raw taro (*Colocasia Esculenta I.*) and taro crisps in Kenya. Candidate: Uwamariya V
- xiii. Masters in Applied Sciences: Food Science and Technology (Durban University of Technology). Microencapsulation of *Bifidobacterium animalis* and *Lactobacillus casei* using resistant starch from *Vigna unguiculata*. <u>Candidate: Rengadu D</u>
- xiv. PhD Food Science and Technology (University of Venda). Cassava root (Manihot Esculenta crantz) characterisation and Evaluation of process-induced changes on functionality of its flour.Candidate: Udoro EO

#### xv. 11.5.1. Reviewer for Academic Journals

Regular reviewer for the following journals:

- ✓ Trends in Food Science and Technology
- ✓ Food Chemistry
- ✓ Critical reviews in Biotechnology,
- ✓ LTW Food Science and Technology
- √ Food Control
- ✓ Journal of Food processing and preservation
- ✓ Cereal Science
- ✓ LWT-Food Science and Technology
- ✓ Food control and African Journal of Food, Agriculture, Nutrition and Development (AJFAND).

### 11.5.2. Reviewer for Grant Applications

- Reviewer for the South African National Research Foundation (NRF) funding and rating applications.
- Member of selection panel and reviewer for the SG-NAPI (Seed Grants for New African Principal Investigators) Programme funding applications

#### 12. AWARDS AND SCIENTIFIC/SCHOLARLY RECOGNITION

#### 12.1 Evaluation status as scientist/scholar

- Member of The World Academy of Science (TWAS) Advisory Committee on COVID-19 -Current
- Fellow of the Pan-African Scientific Research Council (PASRC)-Current
- National Research Foundation (South Africa) NRF rating (Y2). A researcher in this group is recognised by all or the over-riding majority of reviewers as having the potential to establish him/herself as a researcher (demonstrated by recent research products). Evaluation date: January 2019-December 2024.

## 12.2 Research awards and prizes

- The World Academy of Science (TWAS) Affiliates hip. This is an Affiliateship for a period of five years (2018-2022).
- Selected to take part in 2019 young leader's program by the Japanese Science and Technology in Society forum (STS, Japan)
- Faculty of Science (UJ) top researcher in the lecturer/senior lecturer category (2018)
- 2009-2010: Fellowship Winner African Women in Agricultural Research and Development (AWARD).
- 2007: Fellowship Winner Technology Entertainment Design (TED-Global).

## 12.3 Teaching awards and prizes

**2015:** Food Science Educator of the Month – Named by the Institute of Food Technologists (IFT), USA. Since 1939, the Institute of Food Technologists (IFT) has been unlocking the potential of the food science community by creating a dynamic global forum where members from more than 95 countries can share, learn, and grow, transforming scientific knowledge into innovative solutions throughout the food system for the benefit of people around the world.

# 12.4 Other awards and prizes

2018: Outstanding Woman of the year award by Dynamic Ladyz (an NGO for African women in diaspora based in Johannesburg) for community engagement activities (particularly mentorship of young women scientists).

E Kayitesi