

Suhaila Omar Hashim

PERSONAL DETAILS

Female, Kenyan
Date of Birth: 28th February, 1972.

Current contact details

Department of Chemistry and Biochemistry
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AREAS OF SPECIALIZATION

Biochemistry, Industrial biotechnology, protein and enzyme technology, microbiology, downstream processing, molecular biology, bioinformatics.

ACADEMIC QUALIFICATIONS

Doctor of Philosophy (PhD) 1999-2004
Biotechnology Department of Biotechnology, Lund University, Lund, Sweden.
(Scholarship from Sida/SAREC)
Master of Science 1996-2000
(Biochemistry) Department of Biochemistry, University of Nairobi, Nairobi, Kenya.
Scholarship from German Academic Exchange Programme (DAAD)
Bachelor of Science (Hons) 1990-1995
(Biochemistry & Zoology) Department of Biochemistry, University of Nairobi, Nairobi, Kenya

WORK EXPERIENCE

August, 2013 to date

Senior Lecturer and Head of Department – Chemistry and Biochemistry, Pwani University.

Duties

- i. *Administrative*
Head of Department of Chemistry and Biochemistry, includes recruitment of full time and part time academic and technical staff.
Acting Dean, School of Pure and Applied Sciences on several occasions
- ii. Teaching and training at undergraduate and postgraduate levels
- iii. *Research activities*
 - a. Research project entitled "Sustainable utilization of agro-industrial wastes through integration of bio-energy and mushroom production" in collaboration with University of Dar es Salaam (Tanzania) and Addis Ababa University (Ethiopia) with a total funding of USD 1.2 million from the Swedish International Development Agency, within the Bio-Innovate Program (Bioresource innovation network for Eastern Africa Development). Role: Co-Principal Investigator, in charge of the Kenyan Component of the collaboration. Supervising PhD candidate within this project. (2011 – 2015)
 - b. Research project entitled, "Enhancing coconut productivity through micropropagation"

with a total funding of KES 2.5 million from the National Council for Science, Technology and Innovation. Role: Co-Principal Investigator (2012 – 2014)

iv. Committees

- a. Co- chairperson of Steering Committee for the proposed Pwani University Health Research Institute since January, 2014.
- b. Member of Pwani University Health Research Institute (PUHRI) Steering Committee in collaboration with Kenya Medical Research Institute (KEMRI - Wellcome Trust Research Program).

September 2012 – July, 2013

Lecturer and Acting Head of Department of Chemistry and Biochemistry, Pwani University

May 2010 to August 2012

Lecturer in Biochemistry - Department of Biological Sciences (May, 2010 - August, 2011) and Department of Chemistry and Biochemistry (August, 2011 to date), Pwani University

February 2008 - April 2010

Postdoctoral research fellow, Department of Biotechnology, Lund University, Lund, Sweden.

January 2006 - February 2008

Break in career to raise family

December, 2004 - December, 2005

Tutorial Fellow (post-PhD), Department of Biochemistry, University of Nairobi.

October 1999 - December 2004

Doctorate research project entitled “An alkaline active maltooligosaccharide forming α -amylase from *Bacillus halodurans*” carried out at the Department of Biotechnology, Lund University, Sweden, in collaboration with Department of Biochemistry, University of Nairobi, Kenya.

January - August 1999

Research Assistant, Department of Biochemistry, University of Nairobi.

Worked on an ongoing EU funded project on the genes involved in sexual differentiation of the malaria causing parasite, *Plasmodium falciparum*.

September 1996 – August 1999

Master of Science (Biochemistry) programme and carried out an MSc research project entitled “A study on the genetic variation of *P.falciparum* strains from malaria endemic regions of Kenya” at the Department of Biochemistry, University of Nairobi, Kenya in collaboration with the Kenya Medical Research Institute (KEMRI).

September 1995 – September 1996

Underwriting Officer, Sifa Insurance Brokers Ltd (Nairobi, Kenya)

April - July 1994

Laboratory Assistant, Aga Khan Hospital (Mombasa, Kenya)

Carried out routine diagnostic laboratory procedures in the phlebotomy, blood bank, hematology, virology, microbiology and biochemistry sections of the hospital laboratory.

February - May 1993

Laboratory Assistant, Kenya Medical Research Institute (KEMRI; Nairobi, Kenya)

Participated in research projects at the Medical, Clinical and Biomedical Science Research Centers, KEMRI

November 1990 – December, 1995

Bachelor of Science degree course at the University of Nairobi, Kenya. Majored in Biochemistry and Zoology.

LANGUAGES

English, Swahili – Fluent

Swedish - Basic

CONFERENCES/WORKSHOPS/EXHIBITIONS/TRAINING

Participated in the following activities since last appointment:

- i. Kenya Coconut Development Authority (KCDA) event: Launch of Coconut products standards, Mombasa Beach Hotel, 27th February, 2014. Participated in the development of standards for food and non-food coconut products in collaboration with KCDA, Kenya Bureau of Standards and other key stakeholders in coconut sector.
- ii. Golden Climate International Environmental Project Olympiad 2014. Participated as a Juror in Energy category during the National Round of the 2014 Olympiad, Light Academy, Mombasa, 25th -26th February, 2014.
- iii. Kenya Coconut Development Authority Consultative Meeting with Stakeholders, Mombasa Beach Hotel on 24th October, 2013. Agenda: To amend the Agriculture, Food Fisheries Act (AFFA) and Crops Act. Participant
- iv. Kenya Coconut Development Authority stakeholders' workshop on Coconut Communication Strategy, Sapphire Hotel, Mombasa on 15th November, 2013. Participant
- v. 3rd Kenyan International Coconut Conference 17th - 20th September, 2013. Theme: Developing Coconut Agribusiness Through Innovation for Improved Livelihoods. Session moderator
- vi. Training on Effective Complaints Handling Mechanisms and Resolution of Public Complaints, Pwani University, 7th May, 2013.
- vii. Conference on HIV/AIDS Mainstreaming and Integration into the University Curriculum, North Coast Beach Hotel, 27th - 28th March, 2013
- viii. Local Organizer for the International Brain Research Organization (IBRO)/UNESCO School of Neuroscience on Environment, Epigenetics and Behavior, held at Pwani University from 8th - 15th December, 2012
- ix. Annual Participation in Mombasa International Show organized by the Agricultural Society of Kenya (ASK) since 2012.
- x. 17th – 20th July, 2012. Humboldt Kolleg on "The Future of Biodiversity Research in Africa: Scope, Opportunities, Collaboration, Access and Sharing Benefits" Oral presentation on "Microbial enzymes: industrial applications and current status in Kenya".
- xi. Training Workshop on Open Access and Institutional Repositories, Pwani University, 6th July, 2012.
- xii. Coast Education Conference, held at Pwani University College in collaboration with the National council for Science and Technology, 3rd July, 2012.
- xiii. Results Based Management (RBM) Workshop (May 2012) at the International Livestock

Research Institute, Nairobi.

- xiv. Digital Resources Training Workshop, held at Pwani University in collaboration with Information Training and Outreach Centre for Africa (ITOCA), 18 - 19th October, 2010.
- xv. Pedagogical Skills Training held at Pwani University, 6th - 7th August, 2010.
- xvi. Inclusive Education Workshop held at Pwani University, 19th May, 2010.
- vii. BioInnovate research project Annual Workshops held in Kilifi (March, 2011), Dar es Salaam (December, 2011), Addis Ababa (November, 2012).

PUBLICATIONS

M Muthangya, A M Mshandete, J M Amana, **S O Hashim**, and A K Kivaisi (2014). Nutritional and antioxidant analysis of *Pleurotus* HK 37 grown on *Agave Sisalana* saline solid waste. International Journal of Biochemistry and Biophysics 2014; 4(2): 5-12

M Muthangya, A M Mshandete, **S O Hashim**, J M Amana, A K Kivaisi (2013). Evaluation of Enzymatic Activity during Vegetative Growth and Fruiting of *Pleurotus* HK 37 on *Agave sisalana* Saline Solid Waste. Journal of Chemical, Biological and Physical Sciences. Vol 4 (1)1: 247-258.

Muthangya M, **Hashim SO**, Amana JM, Mshandete AM and Kivaisi AK (2013). Optimization of *Pleurotus* mushroom cultivation on Saline Sisal Solid Waste. World Applied Science Journal 23 (9): 1146 -50.

Muthangya M, **Hashim SO**, Amana JM, Mshandete AM and Kivaisi AK (2013). Auditing and Characterization of Sisal Processing Waste - A bioresource for value addition. ARPN Journal of Agricultural and Biological Science 8(7): 518-524.

Muhammad N, Nyamota R, **Hashim S** and Malinga J. Zygotic embryo in vitro culture of *Cocos nucifera* L. (sv East African Tall Variety) in the Coastal lowlands of Kenya (2013). African Journal of Biotechnology 12(22): 3435 - 3440.

Muhammad N, Kashindi G, Shauri H, **Hashim S**, Malinga J. Dissemination of market access and technology information among coconut farmers: a case study of Kilifi County in Kenya (2012). International Journal of Agricultural Sciences 2(5): 153-156.

Thuoc VD, **Hashim S**, Hatti-Kaul R, Mamo, G. Ectoine-mediated protection of enzyme from the effect of pH and temperature stress: a study using *Bacillus halodurans* xylanase as a model (2012). Applied Microbiology and Biotechnology 97: 6271-6278.

Tran TT, **Hashim, SO**, Mamo G, Mattiasson B and Hatti-Kaul R. Thermostable alkaline phytase from *Bacillus sp.* MD2: effect of divalent metals on activity and stability (2011) Journal of Industrial Biochemistry 7: 1000 -1007.

Mamo G, Kasture S, Faryar R, **Hashim S**, Hatti-Kaul R. Surfactants from Xylan: Production of n-OctylXylosides using a highly thermostable Xylanase from *Thermotoga neapolitana* (2010). Process Biochemistry. 45 (5): 700-705.

Quillaguaman J, **Hashim SO**, Bento F, Mattiasson B and Hatti-Kaul R (2005). Poly(β -hydroxybutyrate) production by a moderate halophile, *Halomonas boliviensis* LC1 using starch

hydrolysate as a substrate. *Journal of Applied Microbiology* 99 (1): 151-157.

Hashim SO, Delgado O, Martinez A, Hatti-Kaul R, Mulaa FJ and Mattiasson B (2005). Alkaline active maltohexaose forming α -amylase from *Bacillus halodurans* LBK 34. *Enzyme and Microbial Technology* 36: 139-146

Hashim SO, Hatti-Kaul R, Andersson M, Mulaa FJ and Mattiasson B (2005). Differential scanning calorimetric studies of a *Bacillus halodurans* alpha-amylase. *Biochimica et Biophysica Acta*. May 25; 1723(1-3):184-91.

Hashim SO, Delgado O, Hatti-Kaul R, Mulaa FJ and Mattiason B (2004). Starch hydrolysing *Bacillus halodurans* isolates from a Kenyan soda lake. *Biotechnology Letters* 26: 823-828.

Sallicandro P, Paglia MG, **Hashim SO**, Silvestrini F, Picci L, Gentile M, Mulaa F, Alano P (2000). Repetitive sequences upstream of the pfg27/25 gene determine polymorphism in laboratory and natural lines of *Plasmodium falciparum* *Molecular and Biochemical Parasitology* 110(2): 247-57.

PhD Thesis

An alkaline active maltooligosaccharide forming α -amylase from *Bacillus halodurans* (2004). Lund University, Lund, Sweden, December 2004. ISBN 91-89627-25-3

MSc Thesis

A study on the genetic variation of *P. falciparum* strains from malaria endemic regions of Kenya (2000). University of Nairobi, Nairobi, Kenya.

REFEREES

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