

## CURRICULUM VITAE 2014

**Seif Eldin Abdel RahmanMohammed [Ph.D. Apiculture; PostDoctorate Biochemistry]**

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DEPARTMENT: Natural Resources Development  
Research

TITLE: Assistant Professor

NATIONALITY: Sudanese

DATE OF BIRTH: January 01, 1973

PLACE OF BIRTH: Ad doma, Gezira State

MARITAL STATUS: Married and father of one son

INSTITUTIONAL ADDRESS: National Center for research, Environment and  
Natural Resources Research Institute (ENRRI),  
Khartoum- Sudan  
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**EDUCATION BACKGROUND:**

2009-2010 Postdoctorate: Protein Structure, Function &  
Bioinformatics Laboratory. International Centre  
For Chemical & Biological Sciences, (H.E.J.  
Research Institute of Chemistry, Dr. Panjwani  
Centre for Molecular Medicine & Drug  
Research), University of Karachi, Karachi –  
75270, Pakistan.  
*Research topic:* Characterization of Proteins /  
Peptides from Natural Honey

2006-2008 Ph.D. Apiculture, Sudan Academy of Sciences  
Council of Biosciences, Advanced Technologies  
and Environment.

1995-1998 *Thesis title:* Characterization of Honey Proteins of Different Unifloral Origins.  
 M.Sc. Agriculture, Faculty of Agriculture, University of Khartoum.  
*Thesis title:* Studies on the Purity and Quality of the Sudanese Honeys.  
 B.Sc. Agriculture (honors) class two division one Faculty of Agriculture, University of Khartoum.  
*Field of study:* Crop protection.

**ACADEMIC RANKS:**

1993-1997 Research Assistant  
 1998- 2007 Researcher  
 2008- to date Assistant Professor

**HONORS AND AWARDS:**

1995 NCR M.Sc. Research grant  
 2006 NCR PhD Research grant  
 May 2009- June 2010 TWAS-ICCBS Postdoctorate fellowship  
 July 2011 Ministry of the Cabinet, Republic of the Sudan  
 Travel Award to 2<sup>nd</sup> International workshop on Industrial Biotechnology

**IN SERVICE TRAINING COURSES:**

May 7- June 18, 1994 Course on Biostatistics and SPSS/PC+ held at the Centre for Data Analysis and Statistics, Tropical Medicine Research Institute, NCR  
 February 2-April 26, 2003 Course on English for especial purposes (ESP) and capacity building held at the Sudan National Centre for languages (SUNACEL- SELTI)  
 September 2 - 9, 2006 Course on: Basic Molecular Biology held at the National Central Laboratory, Ministry of Science and Technology  
 June 18 - 26, 2007 Course on: Quality Management Systems ISO 9001:2000 Essentials, Documentation and Internal Auditing held at the Sudanese German Centre for Quality Assurance

August 6-16, 2012 workshop on: Bioinformatics, organized jointly by the Department of Biochemistry, Faculty of Medicine, U of K & the Department of Medical biotechnology, Commission for Biotechnology & Genetic Engineering, NCR, in collaboration With the Ttransfer of Knowledge ThroughExpatriates Nationals (TOKTEN)-UNDP program.

January 27<sup>th</sup> – March 2<sup>nd</sup> Group training course “on development of strategies on climate chang” JICA training and dialogue programs, Tsukuba – Japan.

**ADMINSTRATIVE POSTS:**

2000-2005 Administrative supervisor of ENRRI library

October 28, 2007-August 3, 2008 Acting Head Department of Natural Resources Developmen Research

August 3, 2008- 2013 Head Department of Natural Resources Research & Developmental Studies

**MEMBERSHIP IN COMMITEES AND**

**PROFESSIONAL SOCIETIES:**

Sudan Bee and Agriculture Pioneers in Developement  
Sudanese Beekeeping Society  
Sudanese Enviromental Conservation Society  
Environmentalists Society  
The Arab Beekeepers Union  
The technical Committee of Honey Standards  
Sudanese Standards and Meterology Organization (SSMO)  
The committee of Beekeeping Legislations and Policies, Ministry of Livestock, Fisheries and Rangelands  
The technical committee of wild life [Bees], Khartoum State Ministry of Agriculture- Animal Resources and Irrigation

**TECHNICAL EXPERIENCE:**

Chromatography: GPC, IEXC, RP-HPLC  
Electrophoresis: 1DE  
Chemiluminescence  
Spectroscopy [UV/Mass]  
Sample extraction and manipulation techniques:  
Lypholization, speed vaccum concentraration, etc.  
Project Cycle Management  
Statistics

**RESEARCH POJECTS HANDLED:**

1. Physical, Chemical and Biological Characterization of honey
2. Structural and Functional Characterization of honey proteins

**ONGOING PROJECT:**

1. Proteins and Peptides Purification, Structural Characterization, and Biological Activity Evaluation of Bee Hive (Honey, Royal Jelly, Bee Venom, Propolis) Products

**FEILDS OF INTERESTS:**

1. Proteins/glycopeptides as immunodulators and bioactive componets
2. Structural/functional relationships of proteins/peptides isolated from functional foods
3. Isolation and identification of pesticides/drugs residues from honeybee products
4. Aggressiveness phermones of African bees
5. Nutritional requirement of honeybee colony
6. Beekeeping as community driven income-generation activity
7. Statistical applications in data collection, monitoring, and analysis
8. Database manipulation, management, and information systems
9. Planing, evaluation, and follow up of research projects

**ACADEMIC SUPERVISION:**

	Currently	graduated
A. undergraduate students	–	10
B. Postgraduate students	5	3

**Teaching activities:**

<u>Course</u>	<u>Degree</u>	<u>Faculty/College</u>
• Practical Apiculture	Diploma	Merrawi Technical College
• Api504 Sciences	M.Sc./D	Sudan Academy of Sciences
• Api505 Sciences	M.Sc./D	Sudan Academy of Sciences
• Api5081 Sciences	M.Sc./D	Sudan Academy of Sciences

### **Teaching related activities**

1. Preparation of the Course Structure and Syllabus for M.Sc./D [Sudan Academy of Sciences]
2. Establishment of honey quality control lab. For SSMO.

### **PUBLICATION LIST:**

#### A. Peer reviewed

1. Mohammed, S. A. & Azim, M. K. (2012). Characterization of natural honey proteins: implications for the floral and geographical origin of honey International Journal of Food Science and Technology, vol. (47) 2, 362-368.
2. Mohammed, S. A. & Babiker, E. E. (2010). Identification of the floral origin of honey by amino acid composition. Australian Journal of Basic and Applied Science, 4(4): 552-556.
3. Mohammed, S. A. & Babiker, E. E. (2009). Protein structure, Physicochemical Properties, and Mineral Composition of Apis mllifera Honey Samples of different Floral origins. Australian Journal of Basic and Applied Science, 3(3): 2477-2483.
4. Mohammed, S. A. & Ali, E. E. (2008). Preliminary Test for the Occurence of Adulterants in Commercial Sudanese Honeys. Sudan Journal of Agricultural Research Vol. x pp. Xx.
5. Mohammed, S. A. & Ali, E. E. (2005). Study on the quality characteristics of some Sudanese honeys. Sudan Journal of Agricultural Research Vol. 5 pp. 83-88.

6. Mohammed, S. A., Sajjad, A., & Azim, M. K. (2014). Isolation of 62 kDa protein with antioxidant properties from natural honey. *Journal of the Chemical Society of Pakistan*, 36(4).
7. Musa, M. Y.; Elfaki, A. E.; & **Mohammed, S. A.** (2014). Microbiological characterization and phsicochemical micobiology research journal, 4(6): 715-722.properties of Sudanese honeys. *British*
8. Mohammed, S. A. (2014). Comparison of the chemical composition and heating regimes on stored *Apis mellifera* and *Apis florea* honeys. *British journal of applied science and technology* (in press).

B. Submitted articles

9. Mohamed, Mohammed, S. A., Kabashi, A. S., Koko, W. S., & Azim, M. K. (2014). Purification of Proteins with *In Vitro* Antigiardial Activities from *Ziziphus* Honey. *Parasitology Research*.
10. El-Niber, M. A., EL-Niweiri, M., and **Mohammed, S. A.** (2014). Palynology of honey from Sudan: implication for the honey identity and misdesignation. *Palynology*.
11. Elzaki, E. E. A. and **Mohammed, S. A.** (2014). Description of the general marketing situation of the honeybee products in Khartoum state of Sudan. *University of Khartoum Journal of Agricultural Sciences*.

C. Conference/Workshop

12. Mohammed, S. A. & Azim, M. K. (2011). Protein profiles of natural honey from North Africa & South Asia. The 2<sup>nd</sup> International Conference on Industrial Biotechnology.Cairo- Eagypt. July 20-21, 2011. <http://www.arabbiotech.net/>
13. Mohammed, S. A. & Babiker, E. E. (2009). Protein patterns & some physicochemical characeristics of unifloral honeys. The 6<sup>th</sup> Arab International Apicultural Conference. Abha- Saudia Arbia. March 17-19, 2009. [www.saudibi.com/files/image/pdf/conT6/45.doc](http://www.saudibi.com/files/image/pdf/conT6/45.doc)
14. Mohammed, S. A. & Babiker, E. E. (2009). Mineral constituents and toxic metals of unifloral honeys. The 6<sup>th</sup> Arab International Apicultural Conference

- Abha - Saudia Arabia. March 17-19, 2009.  
[www.saudibi.com/files/image/pdf/conT6/45.doc](http://www.saudibi.com/files/image/pdf/conT6/45.doc)
15. Mohammed, S. A. & Babiker, E. E. (2009). Comparison of amino acid composition between honeys of different floral origins. The 6<sup>th</sup> Arab International Apicultural Conference. Abha- Saudia Arabia. March 17-19, 2009. [www.saudibi.com/files/image/pdf/conT6/45.doc](http://www.saudibi.com/files/image/pdf/conT6/45.doc)
  16. Satti, A. A and **Mohammed, S. A.** (2009). Effect of forage plant source and apiary care on performance of Carnio-Egyptian honey in Sudan: a case study on effect of Neem tree & Sunflower. The 6<sup>th</sup> Arab International Apicultural Conference. Abha - Saudia Arabia. March 17-19, 2009. [www.saudibi.com/files/image/pdf/conT6/45.doc](http://www.saudibi.com/files/image/pdf/conT6/45.doc)
  17. Mohammed, S. A. (2005). Effect of the processing heat on the formation hydroxy methyl furfural in stored Apis mellifera & Apis florea honeys. The 2<sup>nd</sup> National conference of integrated pest management in the Sudan (NCIPM) Gezira university, Wad Medani, 6-8 November 2005.
  18. Mohammed, S. A. & Ali, E. E. (2005). Preliminary Test for the Occurrence of Adulterants in Commercial Sudanese Honeys. The 4<sup>th</sup> Arab International Apicultural Conference. Damascus- Syria, March 24-27, 2005.
  19. Mohammed, S. A. et al. (1997). Beekeeping in Sudan present status & future prospects. Ministry of Agriculture & Forestry Sudan & the International Centre for Insect Physiology & Ecology (ICIPE) Nairobi joint workshop on scientific collaboration. Khartoum, December 6-7, 1977.
  20. The 5<sup>th</sup> Arab International Apicultural Conference (Tripoli- Libya) 25-28 November 2007.
  21. Mohammed, S. A. (2012). Beekeeping A promising Poverty Alleviation Activity: the Case of Blue Nile State Return and Reintegration Assistance For Sudanese Refugees. APIEXPO AFRICA -Addis Ababa-Ethiopia. September 26<sup>th</sup> – 30<sup>th</sup> ,2012. <http://www.apitradeafrica.org/apiexpo-africa-2012.html>
  22. Mohammed, S. A. (2012). Changes in the chemical Nature of Apis mellifera & Apis florea honeys due to heating & storage periods. APIEXPO AFRICA - Addis Ababa-Ethiopia. September 26<sup>th</sup> – 30<sup>th</sup> ,2012. <http://www.apitradeafrica.org/apiexpo-africa-2012.html>
  23. Elzaki, E. E. A. and **Mohammed, S. A.** (2012). Household's Honey Consumption and Preference due to Honey's Criteria in Khartoum State of

- Sudan. APIEXPO AFRICA 2012-Addis Ababa-Ethiopia. September 26<sup>th</sup> – 30<sup>th</sup>, 2012. <http://www.apitradeafrica.org/apiexpo-africa-2012.html>
24. Mohammed, S. A., Sajjad, A., & Azim, M. K. (2011). Isolation of 62 kDa protein with antioxidant properties from natural honey. Conference Proceedings of International Conference on Natural products. (ICNP 2013), 4-6 March 2013, Shah Alam Convention Centre, Shah Alam, Selangor, Malaysia. <http://www.benthamscience.com/open/toprocj/openaccess2.htm>. [DOI: 10.2174/2210289201304010295].
25. Algizouli, A.; **Mohammed, S. A.**; Eltahir, I.; and Elkhidir, I. M. (2013). Antimicrobial activity of propolis. Conference Proceedings of International Conference on Natural products. (ICNP 2013), 4-6 March 2013, Shah Alam Convention Centre, Shah Alam, Selangor, Malaysia.. <http://www.benthamscience.com/open/toprocj/openaccess2.htm>. [DOI: 10.2174/2210289201304010296].
26. Musa, M. Y.; Elfaki, A. E.; and **Mohammed, S. A.** (2013). Microbiological characterization and physicochemical properties of Sudanese honeys. Conference Proceedings of International Conference on Natural products. (ICNP 2013), 4-6 March 2013, Shah Alam Convention Centre, Shah Alam, Selangor, Malaysia. <http://www.benthamscience.com/open/toprocj/openaccess2.htm>. [DOI: 10.2174/2210289201304010028].

#### D. Technical reports

27. Mohammed, S. A. et al. (1994). The effect of Neem seed kernel & leaves extracts on the development, feeding and mortality of the Khapra beetle (*Trogoderma granarium*) larvae. The annual scientific report (ENRRI 94).
28. Mohammed, S. A. (1999). Comparative study between the honey produced by the honeybees *Apis mellifera* & *Apis florea*. The annual scientific report (ENRRI 1999).
29. Mohammed, S. A. (2003). Effect of the storage on honey glucose, fructose, sucrose, total acidity & pH. The annual scientific report (ENRRI 2003).
30. Mohammed, S. A. (2012). Alteration in the chemical composition of *Apis mellifera* & *Apis florea* honeys due to heating & storage periods. The annual scientific report (ENRRI 2009-2010).



31. Elzaki, E. E. A. and **Mohammed, S. A.** (2012). Household's Honey Consumption and Preference due to Honey's Criterions in Khartoum State of Sudan. The annual scientific report (ENRRI 2013).
32. Beekeeping baseline assessment report (June, 2011-FAO).
33. Baseline survey on apicultural and aquacultural activities in Dinder biosphere reserve (June, 2012-MOIWR).

**PARTICIPATION IN COMUNITY DEVELOPEMENT Based NGOS PROJECTS:**

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|----------------------|---|
| May 1- June 3, 2008  | <p>Project: Return and reintegration assistance<br/>For Sudanese refugees</p> <p><i>Location:</i> Blue Nile</p> <p><i>Implimenting agency:</i> International Rescue<br/>Committee</p> <p><i>Donor:</i> PRM</p> <p><i>Position held:</i> Beekeeping course facilitator &amp;<br/>Instructor</p> <p><i>Participants:</i> 87 refugees</p>    |
| January 1- 15, 2009  | <p>Project: Kurmuk &amp; Geissan Recovery and<br/>Rehabilitation (RRP01)</p> <p><i>Location:</i> Blue Nile (Consortium programme)</p> <p><i>Implimenting agency:</i> Islamic Relief</p> <p><i>Donor:</i> UNDP</p> <p><i>Position held:</i> Beekeeping course facilitator &amp;<br/>Instructor</p> <p><i>Participants:</i> 60 refugees</p> |
| January 16- 31, 2009 | <p>Project: Kurmuk &amp; Geissan Recovery and<br/>Rehabilitation</p> <p><i>Implimenting agency:</i> Save the Children-<br/>Sween &amp; Child RightsInstitute</p> <p><i>Donor:</i> UNDP</p> <p><i>Position held:</i> Beekeeping course facilitator &amp;<br/>Instructor</p> <p><i>Participants:</i> 40 refugees</p>                        |

Jan. 23- Feb. 3, 2011	<p>Project: Training workshop on Beekeeping &amp; Honey extraction</p> <p><i>Location:</i> Kurmuk &amp; Geissan</p> <p>Implimenting agency: Islamic Relief</p> <p>Donor: FAO</p> <p><i>Position held:</i> Beekeeping course facilitator &amp; Instructor</p> <p><i>Participants:</i> 50 refugees</p>
March 3- 5, 2011	Food security and livelihood sector coordination meeting (FAO meeting hall)
March 14- 18, 2011	<p>Baseline Beekeeping Assessment in Blue Nile State</p> <p>Project: setting of beekeeping strategies in the Blue Nile State</p> <p><i>Position held:</i> Consultant &amp; Team leader</p>
March 18- 31, 2012	<p>Baseline survey on Apicultural and Aquacultural Activities in Dinder Biosphere Reserve</p> <p><i>Position held:</i> Consultant &amp; Team leader</p>
February 15- 24, 2014	<p>Pro-Poor Value Chain Integration for Peace and Early Recovery in Darfur</p> <p><i>Location:</i> Bindizi- Central Darfur State</p> <p>Implimenting agency: TGH</p> <p>Donor: UNDP</p> <p><i>Position held:</i> Consultant and Course Instructor</p> <p>Participants 60 rfugees</p>