

CURRICULUM VITAE

Personal Data

Name: Siddig Ahmed Gibriel Rahoud

Date & place of birth: 05/30/1958, Kosti, Sudan.

Nationality: Sudanese

Gender: Male

Marital status: Married & father for five children

Religion: Muslim

Foreign Language Skills: Arabic mother tongue and English very good

Profession: Faculty & Researcher

Current job title: Associate professor

Postal address: Albaha University, Faculty of Science & Arts, Balgorashi, Kingdom of Saudi Arabia.

Email address: srahoud@gmail.com

Fax: +966 7 7247272 **Mobile:** +966 530215649

Professional & Research Objective

I am associate professor, working within a research group (Principal investigator) working on two research projects entitled “Genetic & Other Co-factors Associated with Predisposition to Myocardial Infarction Among Saudi Population in Al-Baha District and Baljurashi Province” and “Association of Single Nucleotide Polymorphisms in the CD36 Gene with Predisposition to Obesity and Type 2 Diabetes Mellitus Among Saudi Population in Al-Baha Area”.

I had already involved in other projects regarding Schistosomiasis and Malaria in Center of Biosciences and Biotechnology, Institute of Nuclear Medicine and Molecular Biology, and the Blue Nile National Institute for Infectious Diseases, University of Gezira, Wad Medani, Sudan.

Our main objectives are: to study the genetic susceptibility to infection with *Schistosoma mansoni* and to study the possible consequences due to schistosomiasis and try to control the severe complications of the disease in an endemic area (Gezira - Managil schemes) in central Sudan..

We have other activities regarding home management of malaria and tuberculosis in Sudan and we have deep interest in natural products as Sudan enjoys a very rich flora and social tradition. We are founding members of the Sudanese Society for Natural Products (SSNAP), a national body of > 100 scientists. Our published work covered use of natural products as antibacterial, antifungal, nematocidal and larvicidal agents. We had some efforts on natural products extracted from plants such as Colocynth, Basil, Cymbopogon, Solanum spp. etc. as anti-plasmodium agents and larvicidal.

In the university, I have teaching load covering topics including: general biology, advance biology, cell biology, medical parasitology, diagnostic parasitology, immunology, endocrinology, comparative anatomy, molecular biology and genetics, in addition to the supervision of the postgraduate students registered for MSc and PhD degrees.

Summary of Qualifications

1983: B.Sc. (Zoology, very good, average 81.7%), Assiut University, Assiut, **Egypt.**

1988: M.Sc. (Parasitology, average 79.6%), Yarmouk University, Irbid, **Jordan.**

2008: PhD Molecular biology, University of Gezira, Wad- Medani, **Sudan.**

Professional training & Certifications

1983-84: Graduate work in Parasitology, National Health Lab. Khartoum, **Sudan.**

1984-87: Graduate work in Parasitology & Immunology, (Immuno-Parasitology Lab.), Faculty of life Science, Yarmouk University, Irbid, **Jordan.**

1984-87: Teaching Assistant, Faculty of life Science, Yarmouk University, Irbid, **Jordan.**

1989: Three months WHO sponsored course for professionals in malariology, Malaria Training Center, Sennar, **Sudan.**

1988-90: Research in malaria field, Gadarif teaching hospital & Faculty of Medicine, University of Khartoum, Khartoum, **Sudan.**

1990: One month WHO sponsored course in drug sensitivity test (antimalarial drugs) Malaria Training Center, Sennar, **Sudan.**

1990-93: Head of Parasitology Department, Malaria Training Center, Sennar, **Sudan.**

1993-94: Head of Parasitology Department, Blue Nile Research & Training Center, Wad Medani, **Sudan.**

1996: One month course on molecular biology of malaria parasites & its application, International Center for Genetic Engineering and Biotechnology (ICGEB), New Delhi, **India.**

1997: Course on molecular biology, Plant pathology Center, University of Gezira, **Sudan.**

2003: Practical course on Immunocyte activation: IN VITRO Protocol, International Center for Genetic Engineering and Biotechnology (ICGEB), New Delhi, **India.**

96-2005: Assistant professor, Centre of Bioscience & Biotechnology, University of Gezira, Wad Medani, **Sudan.**

2006: Five months training period on molecular parasitology and genetics, (scholarship), Institute National de la Sante et de la Recherche Medicale (INSERM Unit 399), Faculte de Medecine, Universite de la Mediterranee, Marseille, **France.**

2007: Three months training period on molecular parasitology and genetics, (scholarship), Institute National de la Sante et de la Recherche Medicale (INSERM Unit 399), Faculte de Medecine, Universite de la Mediterranee, Marseille, **France.**

2005-Todate: Associate professor, Al – Baha University, Faculty of Science & Arts, Balgorashi, Kingdom of Saudi Arabia.

Attended Conferences & Workshops

1. International Symposium on Water Borne Diseases, *10-12 February 1994*, Gezira State Ministry of Health, Wad Medani, **Sudan.**

2. The Regional workshop on "*Epidemiology of Schistosomiasis*".*25Th. to 27Th. January 1994*, Arab Union of Scientific Research Centers. Khartoum, **Sudan.**

3. Workshop on "*Curriculum for the Faculty of Health and Environmental Sciences*, *21-28 July 1994*, University of Gezira, **Sudan.**

4. Workshop on "*Control of Leishmaniasis in Sudan, Perorating Workshop*" *21/6/1999*. Institute of Nuclear Medicine, Molecular Biology and Oncology, University of Gezira, **Sudan.** **1994-96:** Lecturer, Faculty of Science & Technology, University of Gezira, Wad Medani, **Sudan.**

5. Workshop on "*Priorities of Researches in Sudan*" *April 2000*. Institute of Nuclear Medicine, Molecular Biology and Oncology, University of Gezira, **Sudan.**

6. Conference on endemic and infectious diseases in the Sudan, *5-8/5/2003*, Sharja Hall, Khartoum, **Sudan.**

7. Science conference 2003, *11-13/10/2003*, Seiyun, **Republic of Yemen.**

8. Workshop on "*Communicable Diseases in Sub-Saharan Africa – From the Bench to the Field*" *18th – 22nd April 2004*, Accra, **Ghana.**

9. Sudan Physician (SAP) Conference, *14 – 16 Feb. 2008*, *Frendship Hall, Khartoum*, **Sudan.**

10. International Congress on Environment, Immune-Mediated Disease and Cancer: Lessons from developing and developed countries, 28 March-1 April 2008, Khartoum, **Sudan**.
11. Translating New Technologies to Improve Public Health in Africa (E1) May 15 - 20, 2008, Speke Resort & Conference Centre, Kampala, **Uganda**.
12. Europe-Africa Frontier Research Conference Series Infectious Diseases: From Basic to Translational Research, 4 – 9 April 2009, the Cape Winelands, **South Africa**.
13. Schistosomiasis Under Control by Partnership Strengthening, Federal Ministry of Health in Collaboration with Bayer Environmental Science & Elie Industries, 27-5-2009, Salam Rotana Hall. Khartoum, **Sudan**.
14. Dean of Higher Studies and Scientific Research “the first Symposium on Sponsored Research Projects” 16/1/2014, Conference Hall, Albaha Univ., Albaha, **KSA**.
15. Dean of Higher Studies and Scientific Research “Priority of Scientific Research” 17-18/3/2014, Gasr Albaha Hotel, Albaha, **KSA**.

Laboratory Experience and Related Skills

I am well trained in microscopy (parasitic diagnosis), cell culture techniques and molecular biology tools.

Description of Thesis

Title

Factors Controlling the Effect of Praziquantel on Liver Fibrosis in *Schistosoma mansoni* Infected Patients

ABSTRACT

Objectives:

- 1- To evaluate the effect of praziquantel (PZQ) therapy on the regression of liver fibrosis in an endemic population.
- 2- To determine the factors controlling the regression of hepatic fibrosis (e.g. gender, age, grade of fibrosis and possibly genetic factors).

Methods:

An association study of a cohort of one hundred seventy seven Sudanese patients infected with *Schistosoma mansoni* (82 males, 95 females) was conducted to evaluate the factors controlling the regression of liver fibrosis 39 months after treatment with PZQ using ultrasound evaluation. PCR was used for DNA amplification, RFLP, primer extension reaction-DHPLC and allelic discrimination assays (TAQ-Man) were used for allelic typing. SPSS version 10 (Statistical Package for Social Science) and SDS version 2.3 (Sequence Detection Systems) software were used for statistical analysis. Chi-Square was used to compare the two phenotypes (regression and progression) in the study subjects

Results

PPF was regressed in 63 patients (35.6%) from higher grades of fibrosis to lower ones. While in 24 patients (13.6 %) the disease progressed to higher grades. In addition, the grade of PPF did not change in 90 patients (50.8%). The mean values of portal vein diameter (PVD), splenic vein diameter (SVD), and index liver size (ILS) in subjects in whom PPF regressed after treatment were significantly lower than in subjects in whom the disease was progressed ($P < .0001$, $P = .031$, and $P = .003$ respectively). The progression of hepatic fibrosis in males (n = 15, 8.5 %) was greater than that of females (n = 9, 5.1 %). Patients who showed regression of PPF or progression of the disease tend to cluster in certain families. Further work was done to evaluate the possible genetic control by studying the role of four polymorphisms (IFN- rs2069705 (C/T), IFN- R1 rs11914 (G/T), rs1327474 (A/G),

and IL-13 rs1800925 (-1055) (C/T). There was an association between IL-13 rs1800925 T allele and the low grades of PPF ($P = 0.02$). No significant association was found between three polymorphisms (IFN- rs2069705 (C/T) $P = 0.5$, rs1327474 (A/G) $P = 0.3$ and IFN- R1 rs11914 (G/T), and PPF as response to PZQ.

Conclusion

Our study indicated that regression and stabilization of PPF after PZQ therapy is controlled by gender, age, grade of fibrosis, and inherited factors.

Key words

Periportal fibrosis (PPF), Regression, Progression, Praziquantel (PZQ).

Professional and Association Memberships

We are founding members of the Sudanese Society for Natural Products (SSNAP), a national body of > 100 scientists.

Work Experience

From	To	Position /Title	Institution	Country	Nature of work	Type of work
8/2012	To-date	Associate prof.	Albaha Univ.	KSA	Teaching & research	Full time
7/2005	9/2010	Associate prof.	Univ. of Gezira	Sudan	Teaching & research	Full time
6/1996	7/2005	Assistant prof.	Univ. of Gezira	Sudan	Teaching & research	Full time
8/1994	6/1996	Lecturer	Univ. of Gezira	Sudan	Teaching & research	Full time
1/1990	8/1994	Parasitologist	Ministry of health	Sudan	Teaching & research	Full time
1984	1988	Teaching assistant	Yarmouk univ.	Jordan	Teaching & research	Part time

Teaching load

In the university, I have teaching load covering topics including:

General biology, advance biology, cell biology, medical parasitology, diagnostic parasitology, immunology, endocrinology, comparative anatomy, molecular biology and genetics.

Referee

1- Prof. Nasr Eldeen Elwali, PhD supervisor, Tel: +249912320212, Email: nasreldinelwali@yahoo.com

2- Prof. Mamoun M. A. Homeida, PhD examiner, Tel: +249-183-227599, Email amst33@hotmail.com

3- Prof. Christophe Chevillard, PhD supervisor, Tel: 0491324452 France, Email: Christophe.chevillard@medecine.univ-mrs.fr

List of Publications

- 1- **Siddig A. Rahoud**, Adil Mergani, Ammar H. Khamis, Osman K. Saeed, Qurashi Mohamed-Ali, Christophe C., Alain J. Dessein, and Nasr Eldin M. A. Elwali. (2014). IL-13 Polymorphism (IL-13 rs1800925 (-1055) (C/T) is Associated with Severe Hepatic Fibrosis in Human Schistosomiasis (Submitted to *MEMBS Journal*).
- 2- Adil Mergani, Ammar H. Khamis, **Siddig A. Rahoud**, EL Fatih Hashim, Mohamed Gumma, Bella Awadelseed, Ali Babikir Haboor and Nasr Eldin M. A. Elwali. (2014). Clustering of Cerebral Malaria in families with Familial Febrile Convulsion. (Submitted to *Malaria Journal*).
- 3- **Rahoud, S.**, Tito, H. and Awad, G. (2014). Association of Single Nucleotide Polymorphisms in the CD36 Gene with Predisposition to Obesity and Type 2 Diabetes Mellitus Among Saudi Population in Al-Baha Area. (Under processing).
- 4- **Rahoud, S.**, Tito, H. and Awad, G. (2014). Genetic & Other Co-factors Associated with Predisposition to Myocardial Infarction Among Saudi Population in Albaha District and Baljurashi Province. (Under processing).
- 5- Basheir, M. H., Abd Elgadir, M. A., Babikir, A. M., **Rahoud. S. A G.**, Musa, H. H., and Tayrab, E. M. (2012). The Prevalence of Multi-drug Resistance-1 gene of Plasmodium falciparum Malaria in Gezira State- Central Sudan. *Sudanese Journal of Public Health* **7(3)**: 109-113.
- 6- **Rahoud, S.**, Mergani, A., Khamis, A. H., Saeed, O. K., Mohamed-Ali, Q., Dessein, A. J and Elwali, N. E. (2010). Factors controlling the effect of praziquantel on liver fibrosis in Schistosoma mansoni infected patients. *FEMS Immunol. Med. Microbiol.* **58 (1)**:106-112.
- 7- Mudawi, H. M. Y.; Smith, H. M. ; **Rahoud, S. A.**; Fletcher, I. A.; Babikir, A. M.; Saeed, O. K.; and Fedail, S. S. (2007). Epidemiology of HCV infection in Gezira state of central Sudan. *J. Med. Virol.* **79**: 383-385.

- 8- Khamis, A. H.; Mergani, A.; **Rahoud, S.** ; Elwali, N.M. ; Mohamed-Ali, Q., Borodin, P.M.; Kirichenko, A. V.; Saeed, O. K.; Idress, A. A.; Magzoub, M. M.; and Axenovich, T. I. (2007). Segregation analysis of susceptibility/resistance to periportal fibrosis in *Schistosoma mansoni* infections in endemic area (Umzoukra village - Gezira State – Sudan). *NC – Sudan Medical Monitor*.**2** (1):17-23.
- 9- Mudawi, H. M. Y.; Smith, H. M. ; **Rahoud, S. A.**; Fletcher, I. A.; Saeed, O. K.; and Fedail, S. S. (2007).Prevalence of Hepatitis B Virus infection in the Gezira State of Central Sudan. *The Saudi Journal of Gastroenterology*.**13** (2):81-83.
- 10- **Rahoud, S.**, Mergani, A., Khamis, A. H., Saeed, O. K., Mohamed-Ali, Q., Dessein, A. J and Elwali, N. E. (2005). Regression of Liver Fibrosis in *Schistosoma mansoni* Infected Sudanese Subjects After Praziquantel Treatment. *Gezira J. of Health Sciences*. **1** (2):8-22
- 11- Chevillard, C., Moukoko, C. E., Elwali, N. E., Bream, J. H., Kouriba, B., Argiro, L., **Rahoud, S.**, Mergani, A., Henri, S., Gaudart, J., Mohamed-Ali, Q., Young, H. A., Dessein, A. J. (2003). IFN-gamma polymorphisms (IFN-gamma +2109 and IFN-gamma +3810) are associated with severe hepatic fibrosis in human hepatic schistosomiasis (*Schistosoma mansoni*). *J. Immunol*. **171**(10):5596-601.
- 12- Mohamed-Ali, Q., Elwali, N. E., Abdelhameed, A. A., Mergani, A., **Rahoud, S.**, Elagib, K. E., Saeed, O. K., Abel, L., Magzoub, M. M., and Dessein, A. J. (1999). Susceptibility to periportal (Symmers) fibrosis in human *schistosoma mansoni* infections: evidence that intensity and duration of infection, gender, and inherited factors are critical in disease progression. *J. Infect. Dis*. **180**(4): 1298-306.