PROF. RIHAB ALI OMER HAMID

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PROFILE

Epidemiologist & Zoonotic Diseases Expert

A deeply committed and versatile **Infectious and zoonotic disease researcher and educator**, I bring over **33 years of professional experience** spanning cutting-edge epidemiological research, public health innovation, and academic leadership. My expertise is rooted in **designing and executing pioneering disease prevention strategies**, bolstered by a strong foundation in data analysis, project leadership, cross-institutional collaboration, and impactful grant management.

Core Competencies & Strengths

- **Innovative Epidemiological Research**
  I specialize in identifying and closing critical gaps in disease surveillance, especially in regions where veterinary and human health intersect. My approach integrates molecular diagnostics, field-based epidemiology, and robust statistical modeling—harnessing the **One-Health framework** to preemptively address zoonotic threats by analyzing human, animal, and environmental health linkages.
- **Public Health Program Design & Implementation**
  I have led and co-led initiatives that strengthen disease detection systems, improve outbreak response, and elevate community engagement. Whether coordinating surveillance in resource-limited settings or training local health workers, my programs translate research into tangible, sustainable health improvements.
- **Advanced Data Analysis & Research Management**
  Leveraging strong skills in biostatistics and epidemiological modeling, I guide multi-faceted projects from inception to outcome, ensuring data integrity, methodological rigor, and real-world applicability. My leadership in securing and managing **significant research funding** has enabled transformative projects in infectious disease control, often in partnership with regional and international agencies.
- **Collaborative & Mentorship-Oriented Leadership**
  I foster partnerships across academia, government, and global health institutions to amplify research impact. As a mentor, I've supervised graduate theses, supported early-career professionals, and delivered lectures and workshops on surveillance, epidemiology, and disease control—ensuring that the next generation of experts is well-prepared.

Impact and Professional Vision

My career has centered on elevating veterinary epidemiology as a pillar of global health security. By fusing rigorous scientific research with applied public health strategies and educational leadership, I've enhanced capacity in **zoonotic disease detection, analysis, and mitigation**. My work has particularly emphasized areas impacted by emerging infectious diseases and trans-boundary animal-human disease dynamics.

I remain committed to advancing interdisciplinary collaboration, refining disease surveillance methodologies, and championing community-centered health interventions. Through continuous scholarship and education, I strive to bolster global readiness against zoonotic threats—empowering communities with knowledge and resilience.

RESEARCH EXPERIENCE

My research career has been marked by key contributions to advancing knowledge and developing solutions in these critical areas of global health. Over the past decade, I have been dedicated to unraveling the complexities of disease transmission, identifying therapeutic targets, and advancing diagnostic tools, all with the ultimate goal of improving public health outcomes.

1. Key Findings:

In my work, I have contributed to significant discoveries regarding the mechanisms of infectious and zoonotic diseases. These include novel insights into how pathogens spread between animals and humans, the identification of emerging zoonotic threats, and the mechanisms by which these diseases evolve to resist treatment. Additionally, I have played a key role in identifying new therapeutic targets, particularly in high-burden infectious diseases such as tuberculosis, malaria, and

zoonoses like avian influenza and rabies. My research has also contributed to the development of more accurate diagnostic tools that enhance early detection and enable more effective disease management.

2. Publications:

The results of my research have been widely disseminated through peer-reviewed publications in leading scientific journals, providing insights into disease epidemiology, transmission dynamics, and intervention strategies. I have presented my findings at international conferences, fostering dialogue among experts in infectious diseases and public health, and contributing to the broader scientific community's understanding of zoonotic and infectious disease epidemiology. My work has helped shape discussions on disease prevention, control, and the development of public health strategies, particularly in under-resourced regions.

3. Collaborations:

To address complex research challenges, I have actively collaborated with researchers both within my institution and internationally. These partnerships have enabled me to leverage complementary expertise and resources, facilitating multidisciplinary approaches to tackle global health problems. Working alongside epidemiologists, microbiologists, veterinarians, and public health experts, I have been part of collaborative research teams that examine zoonotic diseases from both a medical and environmental perspective. These collaborations have led to cross-border research projects that investigate disease outbreaks, track emerging pathogens, and develop preventive measures.

4. Impact:

The broader implications of my research extend into public health, where my findings contribute to understanding, preventing, diagnosing, and treating infectious and zoonotic diseases. My work has influenced public health initiatives, particularly in the development of evidence-based strategies to combat disease outbreaks and reduce zoonotic transmission. By advancing the knowledge of how these diseases spread and identifying points of intervention, my research has helped to inform health policies, improve surveillance systems, and strengthen preparedness for future pandemics.

In summary, my contributions to the fields of infectious and zoonotic disease research, coupled with my focus on epidemiology, have had a meaningful impact on global health. Through key scientific discoveries, collaborative efforts, and dissemination of findings, I continue to work toward enhancing public health strategies and improving the lives of populations at risk for these diseases.

TEACHING EXPERIENCE

Over the years, I have worked to advance the understanding of disease transmission, epidemiology, and prevention strategies, while also contributing to the academic development of students in both undergraduate postgraduate and programs. My teaching experience encompasses a broad range of topics, including animal and public health, molecular biology, research methodology, and research ethics,

Teaching Methodology

1. **Integrated Curriculum Design:Course Structure:** Develop a comprehensive curriculum that integrates theoretical knowledge with practical applications. Courses should cover fundamental concepts in infectious diseases and parasitology, including etiology, pathogenesis, epidemiology, and diagnostic techniques.
   Case-Based Learning: Use real-world case studies to illustrate disease processes, treatment protocols, and epidemiological patterns. This method helps students apply theoretical knowledge to practical scenarios, enhancing their problem-solving skills.
2. **Interactive Learning:Lectures and Seminars:** Deliver engaging lectures supplemented with interactive discussions. Utilize multimedia tools, such as videos, animations, and virtual simulations, to illustrate complex concepts and mechanisms.
   Workshops and Lab Sessions: Incorporate hands-on laboratory sessions where students can practice diagnostic techniques, such as microscopy and molecular assays, and learn about parasite lifecycle and identification methods.
3. **Problem-Based Learning (PBL):Scenario-Based Problems:** Introduce PBL scenarios related to infectious diseases and parasitology. Students work in groups to analyze case studies, identify key issues, and propose evidence-based solutions.
   Facilitator Role: Act as a facilitator during PBL sessions to guide discussions, encourage critical thinking, and provide feedback on problem-solving approaches.
4. **Research Integration:Current Research:** Integrate recent research findings and advancements into the curriculum. Discuss cutting-edge topics, such as emerging infectious diseases, novel diagnostic tools, and new treatment strategies.
   Student Research Projects: Encourage students to undertake small-scale research projects related to infectious diseases or parasitology. Provide guidance on research design, data collection, and analysis.
5. **Technology-Enhanced Learning:Online Resources:** Utilize online platforms to provide supplementary learning materials, including e-books, online journals, and interactive modules. Offer virtual lab experiences and simulations when physical labs are not available.
   Discussion Forums: Create online forums for students to discuss course topics, share insights, and collaborate on projects. This fosters a collaborative learning environment and allows students to engage with the material outside of classroom hours.

Efficient Student Assessment

1. **Formative Assessments:Quizzes and Polls:** Regularly administer quizzes and polls to assess students' understanding of key concepts and provide immediate feedback. These can be conducted in class or through online platforms.
   Lab Reports and Presentations: Evaluate students' lab work and presentations to assess their practical skills and ability to communicate scientific findings. Provide constructive feedback to help them improve.
2. **Summative Assessments:Exams:** Design exams that test both theoretical knowledge and practical skills. Include a mix of multiple-choice questions, short answers, and essay questions to assess different levels of understanding.
   Research Projects: Assess students' research projects based on their ability to formulate hypotheses, conduct experiments, analyze data, and draw conclusions. Evaluate their written reports and oral presentations.
3. **Peer Assessment:Group Projects:** Incorporate peer assessment into group projects to evaluate teamwork, collaboration, and individual contributions. This encourages students to take responsibility for their own and their peers' learning.
   Peer Reviews: Allow students to review and provide feedback on each other's research proposals or presentations. This helps them develop critical evaluation skills and learn from their peers.
4. **Self-Assessment:Reflective Journals:** Encourage students to maintain reflective journals where they document their learning experiences, challenges, and personal growth. Review these journals to gain insights into their self-assessment and understanding.
   Learning Portfolios: Have students create learning portfolios that showcase their achievements, research projects, and reflections. Evaluate the portfolios to assess their progress and depth of understanding.
5. **Continuous Feedback:Regular Feedback:** Provide ongoing feedback throughout the course to guide students' learning and address areas for improvement. Offer feedback on assignments, lab work, and class participation.

ACADEMIC QUALIFICATIONS

PhD (Molecular Parasitology) **March 2003 — June 2006**

University of Khartoum, Khartoum
Title of the Thesis: Epidemiological and Biomolecular Study of Echinococcus species in Humans and Animals in Sudan

(With a scholarship form the German Academic Exchange Service (DAAD, sandwhich program), All the three years were spent in the university of Hohenheim, German<

Bachelor of Veterinary Medicine **July 1989 — December 1994**

University of Khartoum, Khartoum

SCIENTIFIC AWARDS AND HONORS

UNIBUND Mentorship Program for junior professors in the universities of Leipzig, Jena and Halle, Leipzig **March 2023 — March 2025**

The program is highly competitive and targeted a maximum of 8 highly-qualified female Postdocs, researchers undertaking a ‚habilitation', junior scientist group leaders and junior professors in all disciplines at the universities of Leipzig, Halle and Jena who were awarded their are aspire to a professorship at a German university.

Return Scholarship: Alexander von Humboldt Foundation , Stuttgart **August 2018 — March 2019**

International Deans Program Africa, Osnabrück **June 2017 — February 2018**

The program covered topics like: University Governance, strategic and operative management in higher education, quality and financial management, leadership, the Europesn "Boöogna" process, public realtions and change management.

Alexander von Humboldt Fellowship, Leipzig **March 2013 — September 2013**

Georg Forster Fellowship, Alexander von Humboldt, Stuttgart/Leipzig **January 2009 — December 2011**

For highly qualified post doctorate

Prize of the Best Oral Presentation , Nairobi **May 2004 — May 2004**

International Hydatidology Conference

DAAD Fellowship, Stuttgart **December 2002 — July 2006**

Young Scientists Prize of the European Federation of Animal Science (EEAP), , Cairo **March 2002 — March 2002**

SCIENTIFIC ACCOMPLISHMENTS

- **First Identification and GenBank® Deposition of Echinococcus Strains**: This landmark discovery identified *Echinococcus* strains affecting camels in the Eastern Province of Saudi Arabia, significantly contributing to the understanding of zoonotic parasitic diseases in the region.
- **First Report on the Prevalence and Genetic Identification of Echinococcosis in Sudan**: My research provided the first comprehensive data on the prevalence of Echinococcosis and Cystic Echinococcosis in various animal species across different regions of Sudan. The genetic identification of the strains has had important implications for zoonotic disease control and management in the region.
- **First Report on Human-Infecting Echinococcus Strains in Sudan**: This groundbreaking research was the first to identify and report *Echinococcus* strains affecting the human population in Sudan, shedding light on the zoonotic transmission pathways and risks to public health.
- **First Identification of the G1 Strain (*Echinococcus sensu stricto*) in Sudan**: This research was the first to document the presence of the G1 strain, *Echinococcus sensu stricto*, in Sudan. The findings are crucial for understanding the transmission dynamics and epidemiology of this significant zoonotic parasite.
- **First Deposition of the 12S rRNA of the G1 Strain in GenBank®**: I successfully deposited the 12S rRNA gene of the G1 strain into the GenBank® (Accession number: HQ012553.1), providing a reference for future research and contributing to global databases on zoonotic pathogens.
- **First Genetic Identification of Echinococcus Species in Wild Carnivores in Sudan**: This pioneering research identified the prevalence and genetic makeup of *Echinococcus* species in wild carnivores, offering new insights into the wildlife reservoirs of zoonotic diseases in Sudan.
- **First Detection and GenBank® Deposition of *Echinococcus sensu stricto* in Sudanese Population**: My work marked the first identification and deposition of *Echinococcus sensu stricto* from the Sudanese population in the GenBank®, advancing understanding of human zoonotic infections.
- **First Complete Genome Sequence of Methicillin-Resistant *Staphylococcus aureus* (MRSA) Strain in Sudan**: The first full genome sequence of MRSA strain SO-1977 isolated from Khartoum, Sudan, was sequenced and documented, significantly contributing to the global database on antibiotic-resistant pathogens and supporting efforts to combat MRSA infections in both healthcare and community settings.

These accomplishments have had a profound impact on the understanding, prevention, and control of infectious and zoonotic diseases, particularly in regions like Sudan and Saudi Arabia, where zoonotic transmission poses significant public health challenges.4

SKILLS AND COMPETENCES

Research Interest Score 560.3	Citations 741	h-index 12	Ability to Multitask
Critical thinking and problem solving	Effective Time Management	Computer Skills Including Microsoft office and data analysis tools	Leadership and Teamwork
Strategic Planning	Organizational Skills		

WORK EXPERIENCE

Veterinarian and Researcher, Faculty of Veterinary Medicine, University Of Leipzig, Leipzig — December 2024 — Present

- Analyzed the effects of various environmental factors on disease progression, leading to the development of a new preventative measure
- Presented research findings at a national conference, resulting in increased visibility for the project among industry experts
- Designed a simulation model to predict the effects of different treatments on disease progression
- Analyzed large datasets to uncover trends and correlations in disease progression.

Scientific Project Manager, Faculty of Medicine, University of Leipzig, Leipzig — June 2021 — November 2024

- .**Direction of Research Activities**:
- Advised on the development of health-focused research projects aimed at improving public health outcomes.
- **Clinical Study Design and Implementation**: Planned and conducted clinical studies focused on infectious disease epidemiology, including the development of protocols, patient recruitment, and data analysis to ensure robust and impactful findings.
- **Direction of Research Activities**: Led research efforts related to the identification, monitoring, and epidemiological study of infectious diseases, particularly those of zoonotic origin, directing teams in data collection, analysis, and interpretation.

- **Coordination of Collaborative Research**: Led the scientific arrangement of research projects across five major German universities, focusing on epidemiology and infectious diseases, ensuring alignment with institutional objectives and facilitating interdisciplinary collaboration.
- **Advising on Funding and Budgeting**: Provided expert guidance on securing research funding, including drafting applications and managing budgets for epidemiological and infectious disease projects, ensuring optimal allocation of resources.
- **Research Project Coordination**: Oversaw multiple research initiatives, particularly in the fields of zoonotic and infectious diseases, ensuring efficient management of timelines, resources, and collaboration between institutions.
- **Quality Monitoring**: Monitored the quality and progress of research, ensuring projects met scientific and ethical standards, and assessing their eligibility for continuation based on established benchmarks.

Further education Life Science Manager , ATV GmbH, Leipzig, Leipzig **July 2020 — January 2021**

- Medical and pharmacological Regulations
- Planning and conducting clinical studies on infectious disease
- Regulatory affairs and health care structures
- Site, project and quality management as well as marketing
- Monitoring (PSV, SIV, RMV, COV)

Visiting Professor (Alexander von Humnoldt), Georg Forster Program of Alexander von Humboldt Foundation, Stuttgart **August 2019 — March 2020**

- **Teaching Parasitology and Research Methodology**: Delivered lectures and workshops on research methodologies, molecular biology, and epidemiology, focusing on infectious diseases, to both medical and veterinary students, integrating real-world examples from ongoing research.
- **Development of Research Plans**: Established comprehensive research agendas with a focus on infectious diseases affecting both medical and veterinary health, ensuring that PhD students are actively engaged in meaningful research activities.
- **Molecular Typing of Pathogens**: Conducted molecular typing and genetic analysis of *Echinococcus* samples from Sudan and Saudi Arabia, contributing to the understanding of zoonotic diseases that impact both human and animal health.
- **Phylogenetic Analysis**: Led the genetic characterization and creation of phylogenetic relationships for various infectious pathogens, enhancing our understanding of disease transmission and evolution across species.
- **Supervision of Doctoral Students**: Provided mentorship and supervision to doctoral students, guiding their research projects on infectious diseases and zoonoses, ensuring academic and scientific excellence.

Director Biomedical Research Institute, National University Sudan, Khartoum **July 2015 — August 2019**

- As the founder of the Institute, I was responsible for identifying research gaps, preparing and applying for research projects, and managing data in the realms of infectious diseases, zoonotic diseases, and epidemiology.
- Being an alumni of Geerman Research foundation, I arranged workshops on Negelcted Tropical Diseases with the University of Heidelberg, Germany
- I played a key role in national and international research networking, facilitating collaboration across diverse scientific communities.
- Active member of committees dedicated to scientific research, research ethics, and research rewards, contributing to the development and maintenance of high standards in research practices.
- In my role, I supervised both master's and PhD students, guiding them through their research endeavors and fostering their academic growth.
- Teaching undergraduate and postgraduate courses, sharing my expertise in infectious diseases, zoonotic diseases, and epidemiology with the next generation of scholars and practitioners.

Deputy Dean, Faculty of Post graduates and Scientific Research and Director National University Ethical Committee, National University, Sudan, Khartoum **July 2016 — December 2018**

- **Provide Support and Guidance:** Offer expert support and advice to the Pro-Vice-Chancellor on the academic development of postgraduate research programs, including those focused on infectious diseases and epidemiology, for Master's, PhD, and named doctorates.
- Provide academic leadership for postgraduate programs, emphasizing public health and health promotion.
- **Leadership in Research Programs:** Provide academic and administrative leadership in activities relevant to postgraduate research, with a particular emphasis on research in infectious diseases and disease epidemiology.
- **Strategic Oversight:** Maintain a strategic overview of postgraduate research programs within the Division, contributing to Divisional and University-wide strategic planning and development, particularly for programs centered on infectious diseases and epidemiology.
- **Quality Assurance and Monitoring:** Support and monitor the quality assurance, viability, and implementation of University and Divisional policies related to postgraduate research programs, ensuring alignment with the latest advancements and standards in infectious disease and epidemiology research.

- **Program Growth and Marketing:** Facilitate the growth of postgraduate research programs by supporting the development and execution of marketing strategies that highlight the programs' focus on infectious diseases and epidemiology, and monitor their effectiveness.
- Chair the monthly Research Ethic Committee (REC) meetings and sub-committee meetings ensuring that ethical issues are explored and debated. Responsible for reading the applications and meeting documents, taking part in the ethical review, assuming lead reviewer role where necessary and to be responsible for the time management of the committee meeting.
- Process all REC communications in line with due process and timelines.

Academic Staff Member, Institute of Parasitology, , University of Leipzig, Leipzig **February 2012 — June 2015**

- In my teaching and research activities, I focused on the identification and diagnosis of a wide range of internal and external parasites using both conventional and biomolecular techniques.
- Actively involved in national and international congresses and workshops,
- Contributed to regular updates on the latest advancements in veterinary parasitology, epidemiology, and infectious diseases.

Researcher, Department of Parasitology, University of Hohenheim, Germany, Stuttgart **April 2013 — December 2014**

- Established an African network focused on the identification, characterization, and treatment of Echinococcus species across the continent.
- Managed a research project funded by the German Research Foundation (DGF), overseeing all aspects of project execution.
- Actively participated in various research projects within the department, contributing to advancements in veterinary parasitology, epidemiology, and infectious diseases.

Post Doctorate Fellowship,Alexander von Humboldt , University of Hohenheim/University of Leipzig, Stuttgart/Leipzig **January 2009 — June 2011**

- Conducted genotypic characterization of human Echinococcus samples, advancing the understanding of genetic variations and their implications.
- Established a cell culture model for Echinococcus larvae to facilitate in-depth research and teaching.
- Provided instruction and supervision to students and postgraduates, focusing on veterinary parasitology, epidemiology, and infectious diseases.

Doctorate Candidate, University of Hohenheim (DAAD Scholarship), Stuttgart **March 2003 — July 2006**

- Conducted molecular identification and genetic analysis to establish phylogenetic relationships of Echinococcus samples from humans and animals in Sudan, contributing to a deeper understanding of parasite genetics and epidemiology.
- Actively participated in national and international conferences and workshops, and engaged in weekly institute meetings to stay abreast of advancements and foster collaborative research in veterinary parasitology, epidemiology, and infectious diseases.

Researcher-Associate Professor, Central Research Laboratories, Khartoum **July 1996 — December 2010**

- Conducted research on veterinary parasitology with a focus on blood parasites and both internal and external parasites in livestock, utilizing conventional and biomolecular diagnostic techniques.
- Supervised Master's, PhD, and undergraduate students, guiding their learning and research activities in veterinary parasitology, epidemiology, and infectious diseases.
- Led epidemiological field studies to assess the prevalence and impact of various parasites in livestock, contributing valuable data to the field.
- Instructed and taught across various training programs, delivering comprehensive education on parasite diagnostics, epidemiological methods, and the management of infectious diseases.

RESEARCH GRANTS

I was the principal investigator of the below listed Research grants:

1. Epidemiological and Bio molecular studies on Echinococcus species in Sudan. Funding body: German Academic Exchange Services; Project Duration: 36 months; Grant amount: 108000 Euros
2. Small Laboratory Equipment Grant. Funding body: German Academic Exchange Service Research; Project Duration: 12 months; Grant amount: 20000 Euros
3. Echinococcus species affecting humans in Sudan. Funding body: Alexander von Humboldt Foundation; Project Duration: 24 months; Grant amount: 86400 Euros
4. Echinococcus species in Sub-Saharan Africa. Funding body: German Research Foundation; Project Duration: 72 months; Grant amount: 450000 Euros
5. Neglected Tropical Diseases in Africa. Funding body: German Academic Exchange Services; Project Duration: 2 months; Grant amount: 20000 Euros

6. Zoonotic Diseases in Sudan. Funding body: Ministry of Higher Education and Scientific Research Sudan; Project Duration: 12 months; Grant amount: 5000 Euros
7. Prevalence of Toxoplasmosis among Sudanese women. Funding body: Ministry of Higher Education and Scientific Research Sudan; Project Duration: 12 months; Grant amount: 5000 Euros.
8. **Food Allergy Biomarkers** Identification**.** Funding body: German Ministry of Scientifc Research; Project Duration: 36 months; Grant amount: 2000000 Euros

TRAINING COURSES

Neglected Tropical Diseases, Khartoum **November 2018 — November 2018**

Workshop at the National University Research Institute, "Neglected Tropical Diseases" in cooperation with the University of Heidelberg, the WHO and the German Academic Exchange Service, Khartoum / Sudan

Follow-up Meeting of the German Research Foundation, research groups on infectious diseases , Entebbe **September 2018 — September 2018**

Follow-up Meeting of the German Research Foundation, research groups on infectious diseases in Entebbe / Uganda

Research Ethics, Khartoum **February 2018 — March 2018**

Training in research ethics: Faculty of Medicine, University of Khartoum: I cooperation with the European Union, Khartoum / Sudan.

ISO 9001-2015, Khartoum **March 2018 — March 2018**

. German training center and center for continuous professional development, at the National University of Sudan.

ACADEMIC SUPERVISION

1. Doctorate Theseis (11)
2. Master Thesis (9)
3. Co- Supervision (18)
4. External Examiner (9)

TOTAL CITATIONS AND H-INDEX

ResearchGate

Research Interest Score 560.3

Citations 741

h-index 12

Google Scholar

Citation 778

h-index 12

i10-index 18

SELECTED PUBLICATIONS

1. Mustafa Mousa Basha, Linda P. Siziba, **Rihab Omer Hamid**, Jon Genuneit., Regional Disparities and Emerging Topics in Human Milk Research Across Africa: A ScopingRevie. doi.org/10.1002/fsn3.70810
2. Nooh Mohamed Hajhamed · Nouh Saad Mohamed · Abualgasim Elgaili Abdalla · Reem M. A. Ebrahim ·Salahaldeen Ismail Mohammed · Abdullah M. Bakheit · Ayman Azhary · Abdallah Elssir Ahmed ·Abubakar Abdelbagi · Mohamed Sir Elkhatim Ali · **Rihab Ali Omer** · Emmanuel Edwar Siddig ·Ayman Ahmed · Mohammed Elfatih Hamida · Mohammed A. Salim. *Current status and recent trends in innovative tactics and the One Health approach to address the challenge of methicillin-resistant Staphylococcus aureus infections: a comprehensive review.* doi.org/10.1007/s44337-025-00300-1
3. Nooh Mohamed Hajhamed, Abualgasim Elgaili Abdalla, Salahdeen Ismail Mohammed, Abdallah Elssir Ah- med,Abdullah M. Bakheit , Abubakar Abdelbagi, Mohamed Sir Elkhatim Ali **Rihab Ali Omer** Emmanuel Edwar Siddig, Ayman Ahmed, and Nouh Saad Mohamed. 2023. Current Status and Future Perspectives of Antibiotic Therapy for MRSA Infections. doi:10.20944/preprints202304.0180.v

4. KaYanCheung, LoukiaPetrou, BartoszHelfer, ErikaPorubayeva, ElenaDolgikh, SanaAli, Insaf Ali, Lindsay Archibald-Durham, Meredith (Merilee) Brockway, Polina Bugaeva, **Rihab Omer.** 2023. Health and nutrition claims for infant formula: international cross sectional survey. BMJ 2023;380:e071075 | doi: 10.1136/bmj-2022-071075
5. F. A. Al-Hizab., Nouh Saad Mohamed., Marion Wassermann., M. A. Hamouda., A. M. Ibrahim., W. R. El-Ghareeb., M. Abdel-Raheem., Thomas Romig., and **Rihab Ali Omer**. 2021. Three Echinococcus species infect camels on the Arabian Peninsula. Accepted with minor changes: Parasitology Research.
6. Nouh S. Mohamed., Hanadi Abdelbagi., Hussam A. Osman., Abdallah E. Ahmed., Alaa M. Yousif., Yusraa B. Edris., Eman Y. Osman., Aahd R. Elsadig., Emmanuel E. Siddig., Madinna Mustafa., Ammar A. Mohammed., Yousif Ali., MahaM.Osman.,MohamedS.Ali.,**RihabA.Omer**.,AymanAhmed.,CarolH.Sibley.2020. Asnapshot of Plasmodium falciparum malaria drug resistance markers in Sudan: a pilot study. Mohamedetal.BMCResNotes.(2020)13:512 https://doi.org/10.1186/s13104-020- 05363-0.
7. Nouh S. Mohamed., Emmanuel E. Siddig., Abdallah E. Ahmed., Musab M. A. Albsheer., Hanadi Abdelbagi., Eman T. Ali., Anadel A. Alsubki., Sabah A. Abdalaziz., Madinna Mustafa., Mohamed S. Muneer., Hussam A. Osman., Maha M. Osman., Mohamed S. Ali., Ali M. M. Edris., Ayman Ahmed., **Rihab A. Omer**. 2020. Association of IL-17A -197G/A (rs2275913) Single Nucleotide Polymorphism and Rheumatoid Arthritis in Sudanese Patients. (2020). DOI: 10.21203/rs.3.rs-42648/v1.
8. Nouh S. Mohamed., Emmanuel E. Siddig., Abdallah E. Ahmed., Musab M. A.Albsheer., Hanadi Abdelbagi., Eman T. Ali., Anadel A. Alsubki., Sabah A. Abdalaziz., Madinna Mustafa., Mohamed S. Muneer., Hussam A. Osman., Maha M. Osman., Mohamed S. Ali., Ali M. M. Edris., Ayman Ahmed., **Rihab A. Omer**. 2020. Frequency distribution of IL-17A G197A (rs2275913) and IL-17F A7488G (rs763780) polymorphisms among healthy Sudanese population. (2020). BMC Research Notes 13 (1):317.
9. Nouh S. Mohamed., Musab M. Ali Albsheer., Hanadi Abdelbagi., Emanuel E. Siddig., Mona A. Mohamed., Abdallah E. Ahmed., **Rihab Ali Omer**., Mohamed S. Muneer., Ayman Ahmed., Hussam A. Osman., Mohamed S. Ali., brahim M. Eisa., Mohamed M. Elbasheir. 2019. Genetic polymorphism of the N-terminal region in circumsporozoite surface protein of Plasmodium falciparum field isolates from Sudan. Malaria J.18 (333).
10. Nouh Saad Mohamed., Hussam A. Osman., Mohamed S. Muneer., Abdallah M. Samy., Ayman Ahmed., Anwar O. Mohammed., Emmanuel Edwar Siddig., Muzamil M. Abdel Hamid., Mohamed Siralkhatim Ali., **Rihab A. Omer**., Arwa H. Elaagip. 2019. Identifying asymptomatic Leishmania infections in non-endemic villages in Gedaref state, Sudan BMC Res Notes 12, 566 (2019).
11. Madinna Mustafa., Fatima Fathy., Abubaker Mirghani., Mona A. Mohamed., Mohamed S. Muneer., Abdallah E. Ahmed., Mohamed Siralkhatim Ali., **Rihab A. Omer**., Emmanuel E. Siddig., Nouh S. Mohamed., Amjed M. Abd Elkareem. 2019. Prevalence and risk factors profile of seropositive Toxoplasmosis gondii infection among apparently immunocompetent Sudanese women. BMC Res Notes.2019 May 16;12(1):279. doi: 10.1186/s13104-019-4314-0.
12. TeiviLaurimäe., Liina Kinkar., Epp Moks., Thomas Romig., **Rihab A. Omer.**, Adriano Casulli., Gérald Umhang., Guna Bagrade., Malik Irshadullah., Mitra Sharbatkhori., Hossein Mirhendi., Francisco Ponce- Gordo., Silvia V. Soriano., Antonio Varcasia., Mohammad Rostami Nejad., Vanessa Andresiuk and Urmas Saarma. 2018. The benefits of analysing complete mitochondrial genomes: Deep insights into the phylogenetic and population structure of *Echinococcus granulosus sensu lato* genotypes G6 and G7. Infection, genetic and evolution.doi:10.1016/j.meegid.2018.06.016. Epub 2018 Jun 12.
13. Anas Mahadi Elnazeer., Abdallha Elssir., **Rihab Ali Omer**., Mubark Mustafa., Khitma Hassan Elmalik. 2018. American Journal of Zoology. DNA Extraction and PCR Detection of G. Lamblia Cyst from Human Fecal Samples in Some Sudanese Suspected Patients.; 1(1): 24-27. doi: 10.11648/j.ajz.20180101.15.
14. Teivi Laurimäe., Liina Kinkar., Epp Moks., Thomas Romig., **Rihab A. Omer**., Adriano Casulli., Gérald Umhang., Guna Bagrade., Malik Irshadullah., Mitra Sharbatkhori., Hossein Mirhendi., Francisco Ponce- Gordo., Silvia V. Soriano., Antonio Varcasia., Mohammad Rostami Nejad., Vanessa Andresiuk and Urmas Saarma. 2018. Molecular phylogeny based on six nuclear genes suggests that Echinococcus granulosus sensu lato genotypes G6/G7 and G8/G10 can be regarded as two distinct species. Parasitology 1–9. https: // doi. org/ 10. 1017/S003118201800071.
15. **Rihab A. Omer**., Arwid Daugschies., Sandra Gawlowska., Ayman Elnahas., Peter Kern., Sofia Bashir., Mohammed Sir Alkhatim Ali., Amin Osman., Thomas Romig. 2018. First detection of *Echinococcus granulosus sensu stricto* (G1) in dogs in central Sudan (2018). Parasitology Research. DOI 10.1007/s00436-018-5851-5.
16. Nuha A. Mahmoud., Elham I. Mohammed., Siham O. Elshafei, Ahmed H. Elsadig, **Rihab A.Omer**., Sofia B. Mohamed. 2017. Bioinformatics Analysis of Single Nucleotide Polymorphism in Multiple Drug Resistance Protein 1(ABCB1) and Multi-Drug Resistance- Associated Protein 1(ABCC1) in Bos taurus. (2017). American Journal of Bioinformatics Research. DOI: 10.5923/j.bioinformatics.
17. Elham I. M. Ibrahim., **Rihab Ali Omer.**, Ahmed H. Elsadig., Mohamed Sir Elkhatim., Sofia B. Mohamed. 2017. In Silico Analysis of the Structural and Biochemical Features of the Granulocyte-Macrophage Colony Stimulating Factor (GM-CSF), Interleukin-3 (IL-3) and Interleukin- 5 (IL-5) Receptors Subunit α. (2017). American Journal of BioinformaticsResearch2017, 7(1): 25-47.DOI: 10.5923/j.bioinformatics.20170701.03.
18. Sofia B. Mohamed., Mohamed S. Ali., Faisal M. Alamir., Tahani B. Alyas., Abdallah E. Ahmed., Almeen O. Seed., **Rihab A. Omer**.2017. First Complete Genome Sequence of Methicillin-resistant Staphylococcus aureus strain SO-1977 Isolated from Khartoum- Sudan. 19;5(42). pii: e00945-17. doi: 10.1128/genome A. 00945-17.
19. Khalda Abbass Elkhazeen., Rihab Ali Yaji., Diyaa Eldeen Ahmed Salih., **Rihab Ali Omer** and Atif Elamin Abdelgadir. 2017. Prevalence and Risk Factors Associated with Bovine Trypanosomosis Using Conventional Methods and Polymerase Chain Reaction (PCR) in the Blue Nile State, Sudan. Journal of Applied Science and Research, 5 (2):12-23.
20. Mohammed Sirelkhatim., Ghada Sulieman Sharaf Eldin., Imad Fadl Almula., Ahmed Babiker., **Rihab Ali Omer**. 2016. Tuberculosis in Sudan: Efficiency of diagnostic echniques commonly used and investigation of some sociodemographic factors which may influence the disease prevalence. Sudan Medical Monitor. 11(3): 71-77.

21. Abdelgadir Makky., Thomas Romig., Peter Kern., **Rihab Omer**. 2013. NAD1 RFLP- PCR for detecting echinoccosis species prevalence in carnivores in White Nile Area, Sudan. A pilot Study. U of K J of Vet.Med and Anim.Prod.4 (1).
22. K.M.Taha., D.A.Salih.A.M.Ali., **R.A.Omer**., A.M.Elhussein. 2012. Naturally occurring infections of cattle with Theileria lestoquardi and sheep with Theileria annulata in the Sudan. Vet.Parasitol.19 (1/2).
23. **Rihab. A. Omer**., Arwid Daugschies., Thomas Romig. 2011. Cystic echinococcosis in Sudan and South Sudan: Research history of a neglected zoonosis. Berliner Münchner Tierrtzliche Wochenschrift. 124 (11/12): 521-527.
24. Kamal Ibrahim., Thomas Romig., Peter Kern., **Omer, Rihab A**. 2011. A molecular survey on cystic echinoccosis in Sinnar State, Blue Nile State, Sudan. Chinese Medical ournal 124 (18): 2829-2833
25. Romig, T., **R. A. Omer**., E. Zeyhle, M. Hüttner, A. Dinkel, L. Siefert, I; W, Elmahdi, J. Magambo, M. Ocadio, C. N. Menezes, M. E. Ahmed, C. Mbae, M. P. Grobusch and P. Kern. 2011. Echinococcosis in Sub- Saharan Africa: emerging complexity. Vet. Parasitol. 181 (1): 43-47.
26. **Rihab A. Omer**. 2011. Hydatidose im Sudan: Sind Schafe spielen eine untergeordente Rolle im Parasitenzyklus. Vet-Med Report. 6 (35): 3- 3.
27. **Omer R. A**. Dinkel A, Romig T, Mackenstedt U, Elnahas A A, Aradaib I E, Ahmed M E, Elmalik K H, Adam. 2010. A molecular survey of cystic echinococcosis in Sudan. Vet Parasitol. 11169 (3-4): 340-346.
28. **Omer R A**, Dinkel A, Romig T, Mackenstedt U, Elamin M, Elnahas A, Aradaib I, Elmahdi I. 2008. Human hydatidosis in Sudan: Is it a sporadic or endemic disease? American Journal of Tropical Medicine and hygiene. 79 (6): 120-120.
29. **Omer R A**, Dinkel A, Romig T, Mackenstedt U, Elamin M, Elnahas A, Aradaib I. 2007. Strain Characterization of human hydatidosis in the Sudan. American Journal of Tropical Medicine and hygiene. 77 (5): 107- 107.
30. Romig T, Dinkel A, Njoroge E, **Omer RA**. 2005. Distribution and public health impact of different Echinococcus spp.
31. **Omer R A**, Dinkel A, Romig T, Mackenstedt U, Aradaib I. 2004. Strain Characterization of cystic echinoccosis in livestock in Sudan. International Journal of Medical Micobiology. 293(58):59-59
32. **Omer R A**, Dinkel A, Romig T, Mackenstedt U, Elamin M, Elnahas A, Aradaib I. 2004. Strain characterization of human hydatidosis in Sudan. International Archives of hydatidosis. 35 (41).
33. Salah M M Elamin, H Salah Idris, Mohamed A Abdalla, Badr E Hago, Mohammed M. Salih, **Rihab Omer**. 2005. A PCR -generated cDNA probe for the detection of Sudanese serogroups of eipizootic hemorrhagic disease virus. Journal of Animal Veterinary Advance 4 (2): 175-177.
34. **Rihab Omer**, Salah Mukhtar, Imad Aradaib. 2004. PCR for detection of Echinococcus granulosus hydatid cysts collected from camels (Camelus dromedarius). Sud J Vet Sci Anim Husb, 62(1): 12-16.
35. **Rihab A Omer,** Abdelrahim Karrar, Imadeldin E Aradaib. 2004. Comparison of dsRNA profiles of Sudanese isolates of epizootic haemorrhagic disease of deer virus. Pakistan Journal of Biological

Sciences. 7 (10): 1754-1757.

34. Imadeldin Aradaib, **Rihab Omer** and Ali Majid. 2003. Kinetics of antibody response of calves immunized with Schistosoma mansoni glutathione- transferase Veterinarski Arhiv. 73(1): 17-25.

SCIENTIFIC CONFERENCES PRESENTATIONS

1. **Rihab A. Omer**. 2017. Cystic echinococcoisis in Sub-Saharan Africa with special emphasis to the parasite status in the Sudan. Follow up meeting of the German Research Foundation. Hamburg, Germany
2. **Rihab A. Omer**, Suzan Alhakeem, Denis Ebi, Thomas Romig. 2016. First Detection of G1 strain of Echinococcus in Sudanese patients. American Society of Hygiene and Tropical Medicine, USA.
3. **Omer R A**, Dinkel A, Mackenstedt U, Elnahas A, Romig T. 2009. Prevalence and molecular characterization of Echinococcus spp in stray dogs in Central Sudan. Oral presentation in the 22nd conference of the World Association for the Advancement of Veterinary Parasitology. Calgary, Canada.
4. **Omer R A**, Elnahas A, Romig T. 2011. Human hydatidosis in Sudan: Prevalence and strain identification. Oral Presentation in 4th annual conference of the Malaysian Society of Parasitology and Tropical medicine. Kuala lumpur, Malaysia.
5. **Omer R A**, Elnahas A, Romig T. 2012. Hydatidosis in Sudan: Are sheep playing a minor role in the parasite cycle? Oral presentation in the international conference of the society of Veterinary Epidemiology and Preventive Medicine. Leipzig, Germany.
6. **Omer R A**, Elnahas A, Romig T, Daugschies A. 2012. Human hydatidosis in Sudan: Is it a predominant neglected zoonosis or an unseen re-emerging disease? Meeting of the German Zoonosis Platform. Berlin, Germany.
7. **Omer R A**, Elnahas A, Arwid Daugschies, Ute Mackenstedt and Thomas Romig. 2011. Survey on the presence of Echinococcus spp in stray dogs in central Sudan: first report on the presence of Echinococcus granulosus sensu latu (sheep strain). 24th International Conference of Hydatidology. Urmuqi, China.
8. Makky A, **Omer R A**. 2011. A Survey of Echinococcus spp. in stray dogs and wild carnivores in White Nile State, Sudan.). 24th International Conference of Hydatidology. Urmuqi, China.
9. Kamal Ibrahim, **Rihab A Omer.** 2011. A molecular survey on cystic echinococcosis in Sinnar and Blue Nile states, Sudan. 24th International Conference of Hydatidology. Urmuqi, China.
10. Khalid Hiwytalla, Kamal Ibrahim, Aisha El faki, Hassan Osman, Thoam Romig, Peter Kern, **Rihab A. Omer**. 2013. First survey on the presence of Echinococcus spp in lions (Parthera leo leo) and Hyenas (Hyaena Hyaea) in the Dinder National Park, Sudan. IXXV World Congress of Cystic Echinococcosis, Khartoum, Sudan.
11. **Rihab A Omer**, Arwid Daugschies. 2014. Important Parasitic disease of camels (Camelus dromedarius) in the Sudan (2014). Annual meeting of the German Society of Veterinary Parasitology, Leipzig, Germany.

MEMBERSHIP

1. American society of Tropical Medicine and Hygiene
2. German Alliance for Global Health Research
3. National Research Platform for Zoonosis
4. German Society of Parasitology

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ADDITIONAL INFORMATION

- **Links:** Research Gate, Google ScholarORCID
- **Linguistic Skill:** Arabic, English, German