Dr. Sidra Saher, PhD

Assistant Professor of Epidemiology and Public Health

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BIOGRAPHICAL SKETCH

I am an epidemiologist with a PhD in Epidemiology & Public Health (2026), an MPhil in Epidemiology & Public Health (2019) and a DVM (2017), from the University of Veterinary and Animal Sciences (UVAS), Lahore, Pakistan. I joined Bahauddin Zakariya University (BZU), Multan, Pakistan, as a Lecturer of Epidemiology & Public Health in 2023 and currently serve as an Assistant Professor in the same department. My doctoral research was an epidemiological investigation of acaricide resistance in *Rhipicephalus microplus* and *Hyalomma anatolicum* ticks across three agroecological zones of Pakistan. Earlier, as a Research Associate, I worked on the molecular characterization of foot-and-mouth disease virus isolated during the 2018 outbreaks in Lahore division, and on the epidemiological investigation of food and beverages for Norwalk-like viruses in Punjab. My research focuses on the epidemiology of ticks, tick-borne diseases and other infectious diseases. Through teaching and research, I am committed to advancing epidemiology, public health and One Health through evidence-based sustainable approaches.

EDUCATION

PhD in Epidemiology & Public Health, Department of Epidemiology & Public Health, University of Veterinary and Animal Sciences, Lahore, Pakistan (2026)

MPhil in Epidemiology & Public Health, Department of Epidemiology & Public Health, University of Veterinary and Animal Sciences, Lahore, Pakistan (2019)

DVM, University of Veterinary and Animal Sciences, Lahore, Pakistan (2017)

TEACHING AND RESEARCH EXPERIENCE

- **Assistant Professor of Epidemiology & Public Health** at Bahauddin Zakariya University, Multan, Pakistan (05/09/2026-todate)
- **Lecturer of Epidemiology & Public Health** at Bahauddin Zakariya University, Multan, Pakistan (17/03/2023-04/09/2026).
- **Lecturer of Epidemiology & Public Health** at The Islamia University of Bahawalpur, Pakistan
- **Lecturer of Epidemiology & Public Health** at the Muhammad Nawaz Sharif (MNS) University of Agriculture, Multan Pakistan
- **Research Associate,** Research project: Epidemiological investigation of food and beverages for Norwalk-like viruses in Punjab at the University of Veterinary and Animal Sciences, Lahore, Pakistan (2021–2022).
- **Examiner,** University of Veterinary and Animal Sciences, Lahore, Pakistan (2020–2021).
- **Master Trainer,** Karvaan Crafts Foundation, Pakistan (2017).
- **Internship,** Lahore Zoo, Pakistan (2017).

HONOURS AND SCHOLARSHIPS

- **Overseas Scholarship** awarded for PhD studies at the University of Copenhagen, Denmark by the Higher Education Commission (HEC) of Pakistan (2022–2025) – not availed.
- **Overseas Scholarship** awarded for PhD studies at Utrecht University, Netherland by the Higher Education Commission of Pakistan (2021)- not availed.
- **Scottish Scholarship** Award by the British Council.
- **E-Youth Initiative** laptop award for outstanding academic standing.

SKILLS

Computational: Disease surveillance, outbreak investigation, data analysis, BioEdit/mutation analysis, phylogenetic analysis, GraphPad Prism, MEGA, PyMOL, ExPASy, and databases (Ensembl, NCBI, HGMD, UCSC, UniProt, GeneCards).

Experimental: Advanced microbiological techniques, HPLC, PAGE, Sanger sequencing, Western blot, PCR, plasmid isolation, protein extraction from tissue, immunohistochemistry, and immunofluorescence microscopy.

DOCTORAL RESEARCH PROJECT

An Epidemiological Investigation of Acaricide Resistance in *Rhipicephalus microplus* and *Hyalomma anatolicum* Tick Species in Three Agroecological Zones in Pakistan

RESEARCH PROJECTS: IN PROGRESS / COMPLETED

- Development and Field Validation of Multiplex Diagnostic Kit to detect Clostridial Diseases of Livestock in Pakistan. National Research Program for Universities (NRPU), Higher Education Commission (HEC), Pakistan (submitted).
- Epidemiological investigation of food and beverages for Norwalk-like viruses in Punjab (completed, as Research Associate).
- Molecular characterization of FMD virus isolated during outbreaks of 2018 in Lahore division (completed, as Research Associate).

TRAININGS AND WORKSHOPS (NATIONAL / INTERNATIONAL)

- Participated in the short course: Explore AI in Bioinformatics, organized by Genomac Institute Inc., USA (11 July 2025).
- Participated in the fully funded International Bootcamp on Research Writing in Bioinformatics organized by Genomac Institute Inc., USA (8–9 August 2025).
- Participated in the short course on Bioinformatics Course 201, organized by Genomac Institute Inc., USA (1 September 2025).
- Participated in a training program: Critical thinking and innovation in the biotech space, organized by Genomac Institute Inc., USA (3 October 2025).
- Participated in the fully funded program on Integrating Bioinformatics into Biotech Fields, organized by Genomac Institute Inc., USA (21 October 2025).
- Participated in the short course on Applied Functional Genomics and Bioinformatics organized by Genomac Institute Inc., USA (18 June 2025).
- Participated in webinar: Democratizing Genomics: Making Bioinformatics Accessible Worldwide, organized by Genomac Institute Inc., USA (20 June 2025).
- Participated in the Master Class Mastitis Training Cohort 6, focusing on personal hygiene in the dairy parlor, on 11–13 July 2025, organized by Genomac Institute Inc., USA.
- Participated in the International Conference on Evidence-Based Medicine-2025, jointly organized by MGEU, East Windsor Animal Hospital (New Jersey, USA), Vet Crescent Society and UVAS, Lahore, on 4 May 2025.
- Attended the International Bootcamp on Genomics and Bioinformatics for analysing genomic data organized by Genomac Institute Inc., USA (8–9 May 2025).
- Organizer of a one-day seminar on Recent Advances in Feed Manufacturing Technology at the Department of Livestock and Poultry Production, FVS, BZU Multan (30 April 2025).
- Participated in the training program on "Advancements in Food Technologies: Bridging Innovation with a Sustainable Future" organized by MARDI, Malaysia, from 25 to 29 November 2024.
- Participated in the training program on "Coral Reef Preservation: Science, Management, and Action Course" conducted by AARDO's Middle East Regional Office (MERO), Amman, Jordan, 7–9 November 2024.
- Attended the webinar on "Malaria: Vector Biology and Control" held on World Malaria Day by the Department of Zoology, GCU Lahore.
- Attended the one-day international webinar on "Role of Biodiversity Information in Global Biodiversity Information Facility (GBIF)" organized by Government College University, Lahore, on 18 May 2021.
- Attended the International Symposium "One Health meets Sequencing 2.0" organized by University Hospital Basel and the University of Zurich (17 August 2021).
- Attended the International Webinar on "Evidence-based Medicine Part II" organized by Vet Crescent Society–UVAS, Pakistan, in collaboration with East Windsor Animal Hospital, New Jersey, USA (25 July 2021).
- Attended the International Seminar on "Host-Pathogen Interactions" organized by the Islamia University of Bahawalpur, Pakistan (15 July 2021).
- Attended the International e-Conference on "*Listeria monocytogenes* from detection to deep typing: present and new perspectives" organized by Cholistan University of Veterinary and Animal Sciences, Bahawalpur, Pakistan (7 July 2021).
- Attended the International e-Conference on "Vaccines against Arthropod-borne Diseases" organized by Cholistan University of Veterinary and Animal Sciences, Bahawalpur, Pakistan, in collaboration with the Institute of Pathobiology, Argentina (9 July 2021).
- Participated in the seminar on "Agriculture Industry Development and Poverty Reduction in Developing Countries" sponsored by the Ministry of Commerce and the International Exchange Centre of Yangling Demonstration Zone from 18 to 31 May 2023.

- Participated in the seminar on "Frontier Health and Quarantine" for officials of developing countries, sponsored by the Ministry of Commerce and Jiangsu Inspection and Quarantine Institute of Quality, from 13 to 26 September 2023.
- Organizer of a seminar on New Approaches to Control and Prevent FMD at National and International Level held at Department of Clinical Sciences, Bahauddin Zakariya University, Multan (26 October 2023).
- Organizer of a two-day workshop on Primer Designing and Phylogenetic Analysis held at Department of Veterinary Medicine, University of Veterinary and Animal Sciences, Lahore (25–26 October 2023).
- Attended the workshop on "Animal Health Monitoring Framework and Farriery Mentoring Framework" organized by the Department of Clinical Sciences, Faculty of Veterinary Sciences, in collaboration with Brooke Pakistan on 17 October 2023.
- Organizer of the International Conference and Industrial Exhibition "Camelids: Parallel social enterprise for the vulnerable" held at the Faculty of Veterinary and Animal Sciences, Islamia University, Bahawalpur (20–21 March 2023).

RESEARCH PUBLICATIONS (MOST RECENT)

- **Saher, S.,** Mushtaq, M.H., Ijaz, M., Rehman, A. Genotypic detection of synthetic pyrethroid and organophosphate resistance-associated mutations in *Rhipicephalus (Boophilus) microplus* infesting ruminants across three agro-ecological zones in Pakistan. Exp Appl Acarol 97, 26 (2026). https://doi.org/10.1007/s10493-026-01173-4
- Rahman, A., Kashif, M., Nasir, A., Ehtisham-ul-Haque, S., Ullah, H., Sikandar, A., Ahmed, I., Rehman, A.U., Saeed, M.A., Nazar, M.W., Rizwan, M., **Saher, S.,** Abbas, A. (2023): Seroprevalence and haemato-biochemical effects of bovine leucosis in buffalo, Punjab, Pakistan. Vet Med-Czech 68. https://doi.org/10.17221/57/2023-VETMED
- Muhammad Nadeem, Muhammad Rizwan, Tanveer Ahmad, Muhammad Kashif, Aneela Zameer Durrani, Muhammad Ali, Asghar Abbas, Safder Imran, **Sidra Saher,** Syeda Fakhra Waheed. Participatory Surveillance of Infectious and Non-infectious Diseases of Livestock in Pakistan. Punjab University Journal of Zoology. 37(2): 143–148 (2022). https://dx.doi.org/10.17582/journal.pujz/2022.37.2.143.148

BOOK CHAPTERS PUBLISHED

- Rizwan, M., Umer, S., **Saher, S.,** Kashif, M., Ahmad, T., and Rehman, A. 2025. Blood Transfusion Practices and Advancements in Veterinary Medicine. In: Editors (eds), Veterinary Internal and Preventive Medicine. H & M Academic Publisher, Multan, Pakistan, Vol. 1: 157–166. https://doi.org/10.5281/zenodo.17367639
- Amla *(Phyllanthus emblica)* and its medicinal importance. Medicinal and economic importance of plants. Chapter 2, Page No. 21. ISBN: 978-625-367-401-4. DOI: https://dx.doi.org/10.5281/zenodo.10119599
- Plant extracts and other local (Ethnoveterinary) treatments. Chapter 4. Page No. 51. ISBN: 978-625-367-401-4. DOI: https://dx.doi.org/10.5281/zenodo.10119632
- Economical and medicinal uses of various hepatoprotective herbal plants. Chapter 11. Page No. 243. ISBN: 978-625-367-401-4. DOI: https://dx.doi.org/10.5281/zenodo.10119829

JOURNAL REVIEWER (NATIONAL / INTERNATIONAL)

- Certificate of Reviewing for serving as a reviewer for the Open Veterinary Journal (19 July 2025).
- Certificate of Reviewing for serving as a reviewer for the Journal of Research in Veterinary Sciences (4 July 2025).