Dr. Sidra Younis

Associate Professor

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Profile

Dr. Sidra Younis is an accomplished molecular biologist with a strong record in research and higher education, specializing in novel diagnostics and biomarker discovery for infectious diseases, with a particular focus on tuberculosis. She leads an applied research program dedicated to the development of innovative diagnostic approaches for latent, active, and drug-resistant tuberculosis, integrating wet-laboratory experimentation, patient-based studies, bioinformatics, and meta-analysis. She brings over 17 years of research experience, with extensive international collaborations at leading institutions such as University College London (UK), Queen Mary University of London, the National Institute of Fundamental Studies (NIFS), Kandy, Sri Lanka, and New York University, USA. She has also secured multiple competitive research grants from prominent national and international funding bodies, notably the Wellcome Trust, the Higher Education Commission (HEC), and the Pakistan Science Foundation (PSF). Dr. Younis is also recognized for her leadership in managing high-impact research projects and her dedication to mentoring students and fostering a culture of scientific excellence.

Research Interest

Infectious disease Diagnostics, Biomarker Discovery, Tuberculosis

Selected Publications

Tariq EB, Subhan U, Deeba F, Tariq Z, Liaquat A, **Younis S.** CD36 and SR-B1 polymorphisms exhibit distinct association patterns in active and latent tuberculosis. Journal of Medical Microbiology. 2025 Dec 18;74(12):002111.

Subhan U, Akram Z, Shafqat S, **Younis S**. Protocol for DNA Extraction from QuantiFERON-TB Gold Tubes for PCR and Sequencing Applications. medRxiv. 2026:2026-03.

Belay M, Tulu B, **Younis S**, Jolliffe DA, Tayachew D, Manwandu H, Abozen T, Tirfie EA, Tegegn M, Zewude A, Forrest S. Detection of Mycobacterium tuberculosis complex DNA in CD34-positive peripheral blood mononuclear cells of asymptomatic tuberculosis contacts: an observational study. The Lancet Microbe. 2021 Jun 1;2(6):e267-75.

Younis S, Deeba F, Farhat SM, Ali M, Javed Q, Blumenberg M. Meta-Analysis of Human Molecular Responses to Staphylococcus Aureus Components. Life and Science. 2023 Jul 4;4(3):19-19.

Younis S, Deeba F, Saeed RF, Mothana RA, Ullah R, Faheem M, Javed Q, Blumenberg M. Regulation of cell cycle and differentiation markers by pathogenic, non-pathogenic and opportunistic skin bacteria. Saudi journal of biological sciences. 2022 Mar 1;29(3):1717-29.

Awards/Achievements/Grants

Optimal management of radiographically apparent, bacteriologically negative TB identified through active case finding. (Funded by The Welcome Trust, The London, UK; Role: Lead for TB Diagnostics; Funding Amount: 0.7 Million British Pounds Sterling (GBP); Duration: 4 Years; Status: Ongoing)

Identification of the biomarkers for TB diagnosis and prevention. (Funded by HEC and PSF, Role: PI; Funding Amount: ~5.0 Million Pakistani Rupees (PKR) Duration: 5 Year; Status: Ongoing.)

The interplay of human genetic variability and tuberculosis susceptibility. (Funded by Higher Education Commission, National Research Program for Universities. Role: Principle Investigator; Funding Amount, 4.0 Million Pakistani Rupees (PKR), Project Duration: 3 Years; Status: Ongoing.)

Leading UCL-NUMS Collaborative Network for TB (Funding agency: UCL Research Global Engagement funds GEF 2023/2024; Role: Lead/ Global partner; Funding Amount: 5000 British Pounds Sterling (GBP); Duration: 1 Year; Status: Ongoing)

Awarded a distinction by the National University of Medical Sciences in recognition of impactful and innovative research in tuberculosis diagnostics in 2021