Shah Rukh Abbas

Associate Professor

Atta-Ur-Rahman School of Applied Biosciences

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About

Dr. Shah Rukh Abbas is working as Associate Professor in the Atta-Ur-Rahman School of Applied Biosciences. Dr. Shah Rukh Abbas has a PhD in Biotechnology. Dr. Shah Rukh Abbas has published 26 research articles & conference papers having a citation count of 337, carried out 3 projects and filed 7 intellectual property.

Qualifications

PhD in Biotechnology 2010 - 2014
University of Cambridge , Pakistan

B.Sc (Hon) in Biotechnology 2004 - 2008
University of Peshawar , Pakistan

Experience

Associate Professor 2022- Present
Atta-Ur-Rahman School of Applied Biosciences

Assistant Professor 2018 - 2022
Atta-Ur-Rahman School of Applied Biosciences

Assistant Professor 2015 - 2018
Atta-Ur-Rahman School of Applied Biosciences

Assistant Professor 2014 - 2015
Atta-Ur-Rahman School of Applied Biosciences

Research Projects

National Projects

Development of an elastomer-based microbubble contrast agent to produce local cost effective and improved technology for diagnostic and clinical uses
Funding Agency: HEC
Amount: PKR 14,000,000.00
Status: Approved_inprocess

Liposomal Nano-constructs as a Topical treatment for Macular Degeneration 2016
Funding Agency: HEC
Amount: PKR 470,000.00
Status: Completed

International Projects

Industry Projects

National Projects

SpotTB: Development and Commercialization of Portable and Robust DNA based sensor device for Tuberculosis detection along with MDR and XDR profiling. 2019
Client: Pharmatec Pakistan Private Ltd
Amount: PKR 14,000,000.00
Status: Approved_inprocess

International Projects

Research Articles

An electrochemical biosensor for the detection of tuberculosis specific DNA with CRISPR-Cas12a and redox-probe modified oligonucleotide 2024

Saman Taufiq Madoka Nagata Shah Rukh Abbas Professor Koji Sode

Heliyon , Volume:10, Issue: 23, Article Number: e40754

Impact Factor: 3.4 | **Quartile:** 1 | **Citations:** 1

DOI: https://doi.org/10.1016/j.heliyon.2024.e40754

Contrast efficacy of novel phase convertible nanodroplets for safe CEUS imaging 2024

Ramish Riaz Shaheer Shafeeq Mushkbar Fatima Maaz Ahmed Siddiqui Saeedullah Shah Shah Rukh Abbas

Scientific Reports , Volume 14, Issue 1, Article Number: 16126

Impact Factor: 3.800 | **Quartile:** 1 | **Citations:** 2

DOI: https://doi.org/10.1038/s41598-024-66163-1

Novel breath biomarkers identification for early detection of hepatocellular carcinoma and cirrhosis using ML tools and GCMS. 2023

Noor ul Ain Nazir Muhammad Haroon Shaukat Ray Luo Shah Rukh Abbas

PLoS ONE , Volume 18, Issue 11, e0287465

Impact Factor: 2.900 | **Quartile:** 1 | **Citations:** 5

DOI: doi.org/10.1371/journal.pone.0287465

Towards portable rapid TB biosensor: Detecting Mycobacterium tuberculosis in raw sputum samples using functionalized screen printed electrodes 2023

Saman Toufeeq Muhammad Waqar Muhammad Nauman Sharif Shah Rukh Abbas

Bioelectrochemistry , Volume:150, Article Number: 108353

Impact Factor: 5.760 | **Quartile:** 1 | **Citations:** 18

DOI: 10.1016/j.bioelechem.2022.108353

Identification of phenol 2,2-methylene bis, 6 [1,1-D] as breath biomarker of hepatocellular carcinoma (HCC) patients and its electrochemical sensing: E-nose biosensor for HCC 2023

Noor ul Ain Nazir Shah Rukh Abbas

Analytica Chimica Acta , Volume:1242, Article Number: 340752

Impact Factor: 6.911 | **Quartile:** 1 | **Citations:** 19

DOI: 10.1016/j.aca.2022.340752

Tuberculosis detection from raw sputum samples using Au-electroplated screen-printed electrodes as E-DNA sensor 2022

Muhammad Nauman Sharif Saman Toufeeq Manzar Sohail Shah Rukh Abbas

Frontiers in Chemistry , Volume 10, Article Number 1046930

Impact Factor: 5.545 | **Quartile:** 2 | **Citations:** 5

DOI: https://doi.org/10.3389/fchem.2022.1046930

Contrast enhanced sonothrombolysis using streptokinase loaded phase change nano-droplets for potential treatment of deep venous thrombosis 2022

Usama Masood Ramish Riaz Saeedullah Shah Ayesha Isani Majeed Shah Rukh Abbas

RSC Advances , Volume 12, Issue 41, Pages 26665-26672

Impact Factor: 3.9 | **Quartile:** 2 | **Citations:** 2

DOI: 10.1039/D2RA04467F

Novel Magnetic Elastic Phase-Change Nanodroplets as Dual Mode Contrast Agent for Ultrasound and Magnetic Resonance Imaging 2022

Ramish Riaz Hira Waqar Nasir Mahmood Ahmad Shah Rukh Abbas

Polymers , Volume 14(14), Article Number 2915

Impact Factor: 4.967 | **Quartile:** 1 | **Citations:** 5

DOI: https://doi.org/10.3390/polym14142915

Computational screening and analysis of deleterious nsSNPs in human p14ARF (CDKN2A gene) protein using molecular dynamic simulation approach 2022

Syed Umair Ahmad Yasir Ali Zainab Jan Salman Rashid Noor ul Ain Nazir Asif Khan Shah Rukh Abbas Abdul Wadood Ashfaq ur Rehman

Journal of Biomolecular Structure and Dynamics, Pages 1-12

Impact Factor: 5.235 | **Quartile:** 1 | **Citations:** 15

DOI: https://doi.org/10.1080/07391102.2022.2059570

Fluorescence Quenching of Graphene Quantum Dots by Chloride Ions: A Potential Optical Biosensor for Cystic Fibrosis 2022

Ifrah Zahid Shah Rukh Abbas Muhammad Nauman Sharif Maryam Shahid Rahatullah

Frontiers in Materials, Volume 9, Article Number 857432

Impact Factor: 3.2 | **Quartile:** 3 | **Citations:** 9

DOI: https://doi.org/10.3389/fmats.2022.857432

Monodisperse magnetic lecithin-PFP submicron bubbles as dual imaging contrast agents for ultrasound (US) and MRI 2022

Hira Waqar Ramish Riaz Nasir Mahmood Ahmad Ayesha Isani Majeed Shah Rukh Abbas

RSC Advances, Volume 12, Pages 10504-10513

Impact Factor: 3.9 | **Quartile:** 2 | **Citations:** 8

DOI: https://doi.org/10.1039/D2RA01542K

Electrochemical sensing of limonene using thiol capped gold nanoparticles and its detection in the real breath sample of a cirrhotic patient 2022

Noor ul Ain Nazir Habib Nasir Irshad Hussain Shah Rukh Abbas

Journal of Electroanalytical Chemistry, Volume 905, Article Number 115977

Impact Factor: 4.464 | **Quartile:** 1 | **Citations:** 25

DOI: 10.1016/j.jelechem.2021.115977

Synthesis, rheological characterization, and proposed application of pre-polyglycerol sebacate as ultrasound contrast agent based on theoretical estimation 2021

Ramish Riaz Shah Rukh Abbas Mudassar Iqbal

Journal of Applied Polymer Science, Pages 1-10

Impact Factor: 3.057 | **Quartile:** 2 | **Citations:** 6

DOI: 10.1002/app.51963

Graphene Oxide Based Electrochemical Genosensor for Label Free Detection of Mycobacterium tuberculosis from Raw Clinical Samples 2021

Aisha Javed Shah Rukh Abbas Muhammad Uzair Hashmi Noor ul Ain Babar Professor Irshad Hussain

International Journal of Nanomedicine, Volume 2021:16, Pages 7339-7352

Impact Factor: 6.400 | **Quartile:** 1 | **Citations:** 18

DOI: 10.2147/IJN.S326480

Evaluation of amygdalin-loaded alginate-chitosan nanoparticles as biocompatible drug delivery carriers for anticancerous efficacy 2020

Rabia Sohail Shah Rukh Abbas

International Journal of Biological Macromolecules, Volume 153, Pages 36-45

Impact Factor: 6.953 | **Quartile:** 1 | **Citations:** 91

DOI: https://doi.org/10.1016/j.ijbiomac.2020.02.191

Structure-properties relationships of novel cyclic olefinic copolymer/poly(L-lactic acid) polymer blends 2020

Zakia Riaz Ahmad Nawaz Khan Zakia Riaz Ahmad Nawaz Khan Shah Rukh Abbas Zakir Hussain

Journal of Materials Research and Technology, Volume 9, Issue 4, Pages 7172-7179

Impact Factor: 5.039 | **Quartile:** 1 | **Citations:** 4

DOI: https://doi.org/10.1016/j.jmrt.2020.05.024

Chitosan coated liposomes (CCL) containing Triamcinolone Acetonide for sustained Delivery: A Potential Topical Treatment for Posterior Segment Diseases 2020

Madeeha Khalil Uzair Hashmi Ramish Riaz Shah Rukh Abbas

International Journal of Biological Macromolecules, Volume 143, Pages 483-491

Impact Factor: 6.953 | **Quartile:** 1 | **Citations:** 64

DOI: DOI: 10.1016/j.ijbiomac.2019.10.256

Super Toughening, Strengthening, and Antimicrobial Behaviors of Cyclic Olefinic Copolymer/Few Layer Graphene Nanocomposites 2019

Ahmad Nawaz Khan Abdul Saboor Shah Rukh Abbas Muqadas Saleem

Polymer Composites, Volume: 40 Issue: 2 Pages: 536-543

Impact Factor: 2.265 | **Quartile:** 2 | **Citations:** 3

DOI: 10.1002/pc.24683

Hydrogels incorporated with silver nanocolloids prepared from antioxidant rich Aerva javanica as disruptive agents against burn wound infections 2017

Muhammad Uzair Hashmi Faria Khan Nauman Khalid Asad Abdullah Shahid Aqib Javed Tehsin Alam Nasir Jalal Muhammad Qasim Hayat Shah Rukh

Abbas Hussnain Ahmed Janjuaa

Colloids and Surfaces A: Physicochemical and Engineering Aspects, Volume 529, Pages 475-486

Impact Factor: 2.829 | **Quartile:** 2 | **Citations:** 36

DOI: 10.1016/j.colsurfa.2017.06.036

Conference Proceedings

Tiny Technologies for healthcare 2018

Shah Rukh Abbas

Schlumberger Foundation Faculty for the Future Fellows & Alumnae Forum, res.country(2,)

Citations: N/A

DOI: N/A

Tiny Technologies for healthcare Applications 2018

Shah Rukh Abbas

1st International Basic Medical Science Conference (BMedCon18), res.country(177,)

Citations: N/A

DOI: N/A

DNA AND PEPTIDE APTAMER BASED ELECTROCHEMICAL BIOSENSOR FOR EARLY DETECTION OF DISEASE MARKERS 2018

Shah Rukh Abbas

Regional Conference to Promote Safe and Secure Science in the Middle East, South and Southeast Asia, res.country(157,)

Citations: N/A

DOI: https://www.akademisains.gov.my/asm-focus/conference-to-promote-safe-and-secure-science-in-the-middle-east-north-africa-south-southeast-asia/

Tiny Technologies for peticide residue detection 2017

Shah Rukh Abbas

South Asia GCRF Hub meeting: Food Security, Safety and Sustainability Partnership workshop, res.country(177,)

Citations: N/A

DOI: There was not any link for it

Book Chapters

Applications of digital and smart technologies to control SARS-CoV-2 transmission, rapid diagnosis, and monitoring 2022

Muhammad Talha Basir Shah Rukh Abbas

In: *Biotechnology in Healthcare: Applications and Initiatives*, Chapter 14, Pages 259-271

Citations: 1

DOI: https://doi.org/10.1016/B978-0-323-90042-3.25001-9

Adapting the Foreign Soil: Factors Promoting Tumor Metastasis 2020

Ramish Riaz Shah Rukh Abbas Maria Shabbir

In: *Book on Essentials of Cancer Genomic, Computational Approaches and Precision Medicine*, Chapter 8, Pages 171-196

Citations: N/A

DOI: doi.org/10.1007/978-981-15-1067-0

Single-cell Omics for Drug Discovery and Development 2019

Muhammad Uzair Hashmi Shah Rukh Abbas

In: *Book on Single Cell Omics*, Volume 2, Pages 197-220

Citations: N/A

DOI: https://doi.org/10.1016/B978-0-12-817532-3.00013-X

Editorial Activities

Polymers 2022

Reviewed Papers for Journals

Impact Factor: 4.967

Intellectual Property

Copyrights

Patents

Development of Pre Polyglycerol Sebacate-Perfluropentane (Pre-PGS-PFP) microbubbles as echocardiographic contrast agents 2021

Status: Filed

Single portable electrochemical DNA Aptasensor for robust diagnosis of Active Tuberculosis (TB), Multi Drug Resistant Tuberculosis (MDR-TB), Extensively Drug Resistant Tuberculosis (XRD-TB) and Totally Drug Resistant-TB (TDR-TB) all at an earlier stage from raw biological samples 2019

Status: Licensed

A portable electrochemical DNA Aptasensor to rapidly diagnose Active Tuberculosis (TB) and Multi Drug Resistant Tuberculosis (MDR-TB) at an earlier stage from raw biological samples 2019

Status: Licensed

A portable electrochemical DNA Aptasensor to diagnose active Tuberculosis at an earlier stage from raw biological sample. 2019

Status: Licensed

Industrial Designs

Single portable electrochemical DNA Aptasensor for robust diagnosis of Active Tuberculosis (TB), Multi Drug Resistant Tuberculosis (MDR-TB), Extensively Drug Resistant Tuberculosis (XRD-TB) and Totally Drug Resistant-TB (TDR-TB) all at an earlier stage from raw biological samples 2019

Status: Licensed

A portable electrochemical DNA Aptasensor to rapidly diagnose Active Tuberculosis (TB) and Multi Drug Resistant Tuberculosis (MDR-TB) at an earlier stage from raw biological samples” 2019

Status: Licensed

A portable electrochemical DNA Aptasensor to diagnose active Tuberculosis at an earlier stage from raw biological sample 2019

Status: Licensed

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