CURRICULUM VITAE

Dr. Sayeed ur Rehman Abul Kalam
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Department of Biochemistry
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Education

2015	**Doctor of Philosophy (Ph.D.) in Biochemistry** Aligarh Muslim University, Aligarh, U.P., India
2010	**Master of Science (Biochemistry)** Aligarh Muslim University, Aligarh, U.P., India
2008	**Bachelor of Science (Hons.) in Biochemistry** Aligarh Muslim University, Aligarh, U.P., India

Teaching and Research Experience

- Assistant Professor, Department of Biochemistry, School of Chemical and Life Sciences, Jamia Hamdard, New Delhi, India
- Liebniz DAAD Research Fellow, German Diabetes Centre (DDZ), Dusseldorf, Germany
- Post-Doctoral Fellow at Protein Conformation and Enzymology Lab, Department of Biosciences, Jamia Millia Islamia, New Delhi, India

Research Grants

S.No.	Grant Details	Amount (INR)
1.	**Project Title:** *Molecular profiling of novel alternatively spliced isoforms in ovarian cancer: Towards understanding functional diversity and tumor progression.* **Funding Agency:** *Department of Health Research (DHR), Ministry of Health & Family Welfare, Govt. of India.* **Duration:** *3 years (2025-2028)* **Role:** *Mentor*	**61.5 Lakhs**
2.	**Project Title:** *Deciphering alternative splicing events and functional role of novel isoforms in Alzheimer's disease pathogenesis* **Funding Agency:** *Department of Health Research (DHR), Ministry of Health & Family Welfare, Govt. of India.* **Duration:** *3 years (2026-2029)* **Role:** *Co-Mentor*	**50.6 Lakhs**
3.	**Project Title:** *Pharmacological Targeting and Mechanistic Crosstalk Between Behavioral Aspects and Cerebral Neuroinflammation in Autism Spectrum Discorder* **Funding Agency:** *Indian Council of Medical Research (ICMR), Government of India.* **Duration:** *3 years (2026-2029)* **Role:** *Co-Principal Investigator*	**50 Lakhs**
4.	**Project Title:** *Boron based therapeutics against RNA viruses and associated post-infection arthritis in chikungunya infection-a preclinical evaluation.* **Funding Agency:** *Indian Council of Medical Research (ICMR), New Delhi, India* **Duration:** *3 years (2025-2028)* **Role:** *Co-Principal Investigator*	**254.3 Lakhs**

5.	**Project Title:** *To evaluate the role of Wnt signaling pathway in dietary emulsifiers-induced IBD development: A therapeutic perspective.* **Funding Agency:** *Indian Council of Medical Research (ICMR), New Delhi, India* **Duration:** *3 years (2025-2028)* **Role:** *Co-Principal Investigator*	**28.2 Lakhs**
6.	**Project Title:** *Development of capsaicin-based VEGF inhibitors as novel anticancer agents.* **Funding Agency:** *Anusandhan National Research Foundation (ANRF), Government of India.* **Duration:** *2024-2027* **Role:** *Co-Principal Investigator*	**38.8 Lakhs**
7.	**Project Title:** *Effect of Unani preparations on macrophage polarization and its role in Increased Browning of fat leading to amelioration of insulin resistance.* **Funding Agency:** *Central Council for Research in Unani Medicine (CCRUM), Ministry of AYUSH, Government of India.* **Duration:** 2023 **Role:** *Principal Investigator*	**16 Lakhs**
8.	**Project Title:** *Development of Michael acceptor based peptidyl, cinnamic acid and chalcone derivatives as cysteine protease inhibitors for leishmaniasis.* **Funding Agency:** *Indian Council of Medical Research (ICMR), Government of India.* **Duration:** *2021-2023* **Role:** *Co-Principal Investigator*	**21.5 Lakhs**
9.	**Project Title:** *Identification and functional characterization of alternatively spliced novel isoforms of human genes encoding small heat shock proteins (sHSPs) and deciphering their potential role in neurodegenerative disorders.* **Funding Agency:** *Department of Health Research (DHR), Ministry of Health & Family Welfare, Govt. of India.* **Duration:** *2021-2025* **Role:** *Mentor*	**37 Lakhs**
10.	**Funding Agency:** *University Grants Commission (UGC), Government of India.* **Duration:** 2019-2022 **Role:** *Principal Investigator*	**10 Lakhs**

Supervisor/Mentor of Post-doctoral Fellows

Supervising/Mentoring Post-Doctoral Fellows/Senior Research Fellows (Direct)

S.No.	Name of Post-Doctoral Fellow	Funding Agency	Status
1.	Dr. Nazia Ahmad	DHR-Women Scientist, Department of Health Research (DHR), Ministry of Health & Family Welfare, Govt. of India	Working
2.	Dr. Shadabi Bano	DHR-Women Scientist, Department of Health Research (DHR), Ministry of Health & Family Welfare, Govt. of India	Working
3.	Dr. Faizan Abul Qais	Research Associate (RA), Council of Scientific & Industrial Research (CSIR), Govt. of India	Completed
4.	Dr. Naira Rashid	DHR-Women Scientist, Department of Health Research (DHR), Ministry of Health & Family Welfare, Govt. of India	Completed
5.	Dr. Insha Sultan	Research Associate (RA), Indian Council of Medical Research (ICMR), Govt. of India	Completed
Senior Research Fellows (Direct)			

4.	Ms. Pallavi Juneja	SRF (Direct), Council of Scientific & Industrial Research (CSIR), Govt. of India	Working
5.	Mr. Akshat Rathi	SRF (Direct), Council of Scientific & Industrial Research (CSIR), Govt. of India	Working

Ph.D. Supervision

Supervisor	Co-supervisor
Awarded: 01 Submitted: 01 Ongoing: 05	Awarded: 01 Submitted: 01 Ongoing: 05

M.Sc. dissertations supervised

Supervisor	22
Co-supervisor	06

Fellowships/Awards

- Leibniz-DAAD Research Fellowship to pursue research in German Diabetes Centre, Dusseldorf, Germany (2018).
- Dr. D.S. Kothari Post-Doctoral Fellowship by University Grants Commission, New Delhi, India (2015)
- Senior Research Fellowship (SRF) by Council of Scientific and Industrial Research, New Delhi, India (2013-2015)
- Qualified CSIR/UGC-Junior Research Fellowship/National Eligibility Test (JRF/NET, 2010) Examination and secured All India Rank of 0130/0888.
- Qualified Graduate Aptitude Test in Engineering (GATE), a National level exam conducted by Indian Institute of Technology (IIT), New Delhi, India (2010).
- Reach the World Travel Grant by International Society on Thrombosis and Haemostasis (ISTH) to attend XXVII Congress of the International Society on Thrombosis and Haemostasis held in Melbourne, Australia from July 6 – 10, 2019.

Service to University /Administrative Duty (most recent)

- Member, Central Admission Committee of Jamia Hamdard (Admissions 2024-25).
- Member, Bioinformatics Facility (BIF) Committee of Jamia Hamdard (2024-till date).
- Member and Convener, Implementation of NEP 2020 Committee in School of Chemical and Life Sciences, Jamia Hamdard.
- Member, School Board, School of Chemical and Life Sciences, Jamia Hamdard.
- Member, Board of Studies, Deppartment of Biochemistry, SCLS, Jamia Hamdard.
- Coordinator, M.Sc. Biochemistry Course, Department of Biochemistry.
- Member, School Examination Committee, School of Chemical and Life Sciences, Jamia Hamdard.

Publications

1. Rathi A, Qais FA, Rashid N, Ahmad F, **Rehman SU**. Identification and In Silico Characterization of an Alternatively Spliced Novel Transcript of Human DDR2 Gene. Cell Biochemistry and Biophysics. 2025 Nov 1:1-5. (**Corresponding author)**
2. Tanwar S, Rathi A, Qais FA, Sultan I, Ahmad F, **ur Rehman S**. Analysis of an alternatively spliced variant of mouse Pklr gene encoding a novel isoform with distinct N-terminal. **Biochemical and Biophysical Research Communications**. 2025 Aug 19:152498. (**Corresponding author)**

3. Parveen S, Kumar RS, Rathi A, Nayeem A, Qais FA, Ahmad F, **Rehman SU**. In Silico Investigation of Eleusine coracana Phytocompounds as Prostate Cancer Therapeutics Targeting Heat Shock Protein 90 Alpha Family Protein. **Journal of Computational Biophysics and Chemistry**. 2025;24(7):933-48. (**Corresponding author)**
4. Dahalia M, Majid H, Khan MJ, Rathi A, Khan MA, Khan IA, Samim M, **Rehman SU**, Noorani MS, Vohora D, Nidhi. In vitro and in-vivo exploration of physostigmine analogues to understand the mechanistic crosstalk between Klotho and targets for epilepsy. **Frontiers in Pharmacology**. 2025 Apr 25;16:1580943.
5. Sharma S, Beg MA, Latief I, Aboti J, Jamal S, Juneja P, Tanwar S, Sharma K, **Rehman SU**, Selvapandiyan A, Shafi S. Design, synthesis and biological activity of peptidyl β-nitrostyrenes as cysteine protease inhibitors against Leishmania donovani. **RSC advances**. 2025;15(8):5703-19.
6. Rashid N, Juneja P, Rathi A, Sultan I, **Rehman SU.** Identification of Alternatively Spliced Novel Isoforms of Human HSPB8 Gene. **The Protein Journal.** 2024 Jul 9:1-1. (**Corresponding author)**
7. Juneja P, Rashid N, Abul Qais F, Tanwar S, Sultan I, Ahmad F, & **Rehman SU**. (2024). Alternative splicing generates a novel ferroportin isoform with a shorter C-terminal and an intact iron-and hepcidin-binding property. **IUBMB Life**. (**Corresponding author)**
8. Tanwar S, Qais FA, Naaz F, Rashid N, Ahmad F, & **Rehman SU**. (2023). Identification of a novel Sorcin isoform with a different C-terminal but intact dimerization property. **Scientific Reports**, 13(1), 15262. (**Corresponding author)**
9. Sharma S, Anjaneyulu Yakkala P, Beg MA, Tanwar S, Latief I, Khan A, Sharma K, **Rehman SU**, Selvapandiyan A, & Shafi S. (2023). 5-Arylidene-2, 4-thiazolidinediones as Cysteine Protease Inhibitors against Leishmania Donovani. **ChemistrySelect**, 8(29), e202302415.
10. Siddiqui S*, Ameen F*, **Rehman SU***, Sarwar T, Tabish M. Studying the interaction of drug/ligand with serum albumin. **Journal of Molecular Liquids**. 2021 Aug 15;336:116200. **(First author, equal contribution)**
11. Ameen F, Siddiqui S, Kausar T, Nayeem SM, Sarwar T, Rizvi MM, **Rehman SU**, Tabish M. Interaction of memantine with calf thymus DNA: an in-vitro and in-silico approach and cytotoxic effect on the cancerous cell lines. **Journal of Biomolecular Structure and Dynamics**. 2022 Feb 2;40(3):1216-29.
12. Ameen F, Siddiqui S, Jahan I, Nayeem SM, **Rehman SU**, Tabish M. Studying the interaction of scopolamine with calf-thymus DNA: An in-vitro and in-silico approach and genotoxicity. **Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy**. 2022 Jan 15;265:120391.
13. Ahmed S, **Rehman SU**, & Tabish M. (2022). Cancer nanomedicine: A step towards improving the drug delivery and enhanced efficacy of chemotherapeutic drugs. **OpenNano**, 7, 100051.
14. Fatima S, Gupta S, Khan AB, **Rehman SU**, & Jairajpuri MA. (2022). Identification and validation of two alternatively spliced novel isoforms of human α-1-antichymotrypsin. **Biochemical and Biophysical Research Communications**, 628, 25-31.
15. **Rehman SU**, Schallschmidt T, Rasche A, Knebel B, Stermann T, Altenhofen D, Herwig R, Schürmann A, Chadt A, Al-Hasani H. Alternative exon splicing and differential expression in pancreatic islets reveals candidate genes and pathways implicated in early diabetes development. **Mammalian Genome**. 2021 Jun;32(3):153-72. **(First author)**
16. Fareed M, Sharma V, Singh I, **Rehman SU**, Singh G, & Afzal M. (2021). Whole-exome sequencing reveals a rare variant of OTOF gene causing congenital non-syndromic hearing loss among large Muslim families favoring consanguinity. **Frontiers in Genetics**, 12, 641925.
17. **Rehman SU**, Tabish M **(2020)** Alternative splicing of ACE2 possibly generates variants that may limit the entry of SARS-CoV-2: a potential therapeutic approach using SSOs. **Clinical Science** 134(10):1143-50. (**Corresponding author)**
18. Fatima S, Ansari S, Bano S, Ahamad S, Ishqi HM, Tabish M, Gupta D, **Rehman SU**, Jairajpuri MA. Detection of truncated isoforms of human neuroserpin lacking the reactive center loop: Implications in noninhibitory role. **IUBMB life**. 2021 Apr 23. **(Co-corresponding).**

19. Siddiqui S, Ameen F, Kausar T, Nayeem SM, **Rehman SU**, Tabish M. Biophysical insight into the binding mechanism of doxofylline to bovine serum albumin: An in vitro and in silico approach. **Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy**. **2021** Mar 15;249:119296.
20. Ameen F, Siddiqui S, Jahan I, Nayeem SM, **Rehman SU**, Tabish M **(2020)** A detailed insight into the interaction of memantine with bovine serum albumin: A spectroscopic and computational approach. **Journal of Molecular Liquids** 303:112671.
21. Siddiqui S, Mujeeb A, Ameen F, Ishqi HM, **Rehman SU**, Tabish M **(2020)** Investigating the mechanism of binding of nalidixic acid with deoxyribonucleic acid and serum albumin: a biophysical and molecular docking approaches. **Journal of Biomolecular Structure and Dynamics** 17:1-6.
22. Bano S, Fatima S, Ahamad S, Ansari S, Gupta D, Tabish M, **Rehman SU**, Jairajpuri MA **(2020)** Identification and characterization of a novel isoform of heparin cofactor II in human liver. **IUBMB life** 72(10):2180-93. **(co-corresponding)**
23. Ahmad P, Tantry IQ, Ali A, Siddiqui SA, **Rehman SU**, Waris S, Jairajpuri MA **(2020)** Structural alteration in hypochlorous acid modified antithrombin indicates generation of neo-epitopes. **Archives of Biochemistry and Biophysics** 17:108332.
24. **Rehman SU**, Ashraf S, Ahamad S, Sarwar T, Husain MA, Ahmad P, Tabish M, Jairajpuri MA **(2019)** Identification of a novel alternatively spliced isoform of antithrombin containing an additional RCL-like loop. **Biochemical and biophysical research communications** 517(3):421-6. **(First author)**
25. Ishqi HM, Husain MA, **Rehman SU**, Sarwar T, Tabish M **(2018)** Identification and expression of alternatively spliced novel isoforms of cancer associated MYD88 lacking death domain in mouse. **Molecular biology reports** 45(5):699-711.
26. Husain MA, Ishqi HM, Sarwar T, **Rehman SU**, & Tabish M. (2017). Interaction of indomethacin with calf thymus DNA: a multi-spectroscopic, thermodynamic and molecular modelling approach. **MedChemComm**, *8*(6), 1283-1296.
27. Ishqi HM, Sarwar T, Husain MA, **Rehman SU**, Tabish M **(2018)** Differentially expressed novel alternatively spliced transcript variant of tumor suppressor Stk11 gene in mouse. **Gene** 668:146-54.
28. Husain MA, Ishqi HM, **Rehman SU**, Sarwar T, Afrin S, Rahman Y, Tabish M **(2017)** Elucidating the interaction of sulindac with calf thymus DNA: biophysical and in silico molecular modelling approach. **New Journal of Chemistry** 41(24):14924-35.
29. **Rehman SU**, Sarwar T, Husain MA, Ishqi HM Tabish M **(2017)** Identification of two novel isoforms of mouse NUR77 lacking N-terminal domains. **IUBMB Life** 69:106-114. **(First author)**
30. **Rehman SU**, Ishqi HM, Husain MA, Sarwar T, Tabish M **(2016)** A novel exon generates ubiquitously expressed alternatively spliced new transcript of mouse Abcc4 gene. **Gene** 594: 131-137. **(First author)**
31. **Rehman SU**, Husain MA, Sarwar T, Ishqi HM, Tabish M **(2015)** Modulation of alternative splicing by anticancer drugs. **Wiley Interdiscip Rev RNA** 6:369-79. **(First author)**
32. **Rehman SU**, Sarwar T, Husain MA, Ishqi HM, Tabish M **(2015)** Studying non covalent drug-DNA interactions. **Arch Biochem Biophys.** 576: 49–60. **(First author)**
33. **Rehman SU**, Sarwar T, Ishqi HM, Husain MA, Hasan Z, Tabish M **(2015)** Deciphering the interactions between chlorambucil and calf thymus DNA: A multi-spectroscopic and molecular docking study. **Arch Biochem Biophys**. 566:7-14. **(First author)**
34. **Rehman SU**, Zubair H, Sarwar T, Husain MA, Ishqi HM, Nehar S, Tabish M **(2015)** Redox cycling of Cu(II) by 6-mercaptopurine leads to ROS generation and DNA breakage: possible mechanism of anticancer activity. **Tumour Biol.** 36:1237-44. **(First author)**
35. **Rehman SU**, Yaseen Z, Husain MA, Sarwar T, Ishqi HM, Tabish M **(2014)** Interaction of 6 Mercaptopurine with Calf Thymus DNA – Deciphering the Binding Mode and Photoinduced DNA Damage. **PLoS One** 9(4): e93913. **(First author)**

36. MA Husain, HM Ishqi, T Sarwar, SU Rehman, M Tabish **(2017)** Identification and expression analysis of alternatively spliced new transcript isoform of Bax gene in mouse. **Gene** 621: 21-31.
37. MA Husain, HM Ishqi, T Sarwar, SU Rehman, M Tabish **(2017)** Interaction of indomethacin with calf thymus DNA: A Multi-spectroscopic, thermodynamic and molecular modelling approach. **MedChemComm** (Advance article) DOI: 10.1039/C7MD00094D.
38. Sarwar T, Ishqi HM, **Rehman SU**, Husain MA, Rahman Y, Tabish M (2017) Caffeic acid binds to the minor groove of calf thymus DNA: A multi-spectroscopic, thermodynamics and molecular modelling study. **Int J Biol Macromol.** 98:319-328.
39. Husain MA, **Rehman SU**, Sarwar T, Ishqi HM, Tabish M **(2016)** NSAIDs induced regulation of alternatively spliced transcript isoforms: possible role in cancer and Alzheimer disease. **Curr Cancer Drug Targets.** 2016 Dec 15.
40. Parveen M, Ahmad F, Malla AM, Khan MS, **Rehman SU**, Tabish M, Silva MR, Silva PS **(2016)** Structure elucidation and DNA binding specificity of natural compounds from Cassia siamea leaves: A biophysical approach. **J Photochem Photobiol B.** 159:218-28.
41. Ishqi HM, **Ur Rehman S**, Sarwar T, Husain MA, Tabish M **(2016)** Identification of differentially expressed three novel transcript variants of mouse ARNT gene. **IUBMB Life** 68:122-135.
42. Sarwar T, Zafaryab M, Husain MA, Ishqi HM, **Rehman SU**, Moshahid Alam Rizvi M, Tabish M **(2015)** Redox cycling of endogenous copper by ferulic acid leads to cellular DNA breakage and consequent cell death: A putative cancer chemotherapy mechanism. **Toxicol Appl Pharmacol.** 289:251-61.
43. Husain MA, **Rehman SU**, Ishqi HM, Sarwar T, Tabish M **(2015)** Spectroscopic and molecular docking evidence of aspirin and diflunisal binding to DNA: a comparative study. **RSC Advances** 5 (79), 64335-64345.
44. Yaseen Z, **Rehman SU**, Tabish M, Shalla AH **(2015)** Modulation of bovine serum albumin fibrillation by ester bonded and conventional gemini surfactants. **RSC Advances** 5 (72), 58616-58624.
45. Husain MA, Sarwar T, **Rehman SU**, Ishqi HM, Tabish M **(2015)** Ibuprofen causes photocleavage through ROS generation and intercalates with DNA: A combined biophysical and molecular docking approach. **Phys Chem Chem Phys**. 17:13837-13850.
46. Sarwar T, Husain MA, **Rehman SU**, Ishqi HM, Tabish M **(2015)** Multi-spectroscopic and molecular modelling studies on the interaction of esculetin with calf thymus DNA. **Mol Biosyst.** 11:522-531.
47. Sarwar T, **Rehman SU**, Husain MA, Ishqi HM, Tabish M **(2015)** Interaction of coumarin with calf thymus DNA: Deciphering the mode of binding by in vitro studies. **Int J Biol Macromol.** 73:9-16.
48. Yaseen Z, **Rehman SU**, Tabish M, Kabir ud-Din **(2014)** Interaction between DNA and Cationic Diester Bonded Gemini Surfactants. **Journal of Molecular Liquids** 197, 322–327.
49. Husain MA, Yaseen Z, **Rehman SU**, Sarwar T, Tabish M. **(2013)** Naproxen intercalates with DNA and causes photocleavage through ROS generation. **FEBS J.** 280, 6569-6580. PMID: 24299266.
50. Banday AR, Azim S, **Rehman SU**, Tabish M **(2012)** Two novel N-terminal coding exons of Prkar1b gene of mouse: Identified using a novel approach of in silico and molecular biology techniques. **Gene** 500, 73-79. PMID: 22446042.
51. A Naqshbandi, MW Khan, S Rizwan, **Rehman SU**, F Khan **(2012)** Studies on the protective effect of dietary fish oil on cisplatin induced nephrotoxicity in rats. **Food Chem Toxicol.** 50, 265-273.

Book Chapter

1. Tabish M, Azim S, Hussain MA, **Rehman SU**, Sarwar T, Ishqi HM **(2013)** Bioinformatics Approaches in Studying Microbial Diversity, Chapter 6: Management of Microbial Resources in the Environment. Malik, Abdul; Grohmann, Elisabeth; Alves, Madalena (Eds.) XII, 530 p. 34 illus. pp 119-140.

Participation in Conferences/Orientation Programme (last 5 years)

i) NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) Organized by Centre for Professional Development in Higher Education (UGC-MMTTC), University of Delhi from **December 5-14, 2023.**

ii) Successfully completed one week Faculty Development Programme on "National Education Policy-2020" from **20-26 March, 2023** and obtained Grade A+ conducted by Teaching Learning Centre, Ramanujan College, University of Delhi, New Delhi, India.

iii) Succesfully completed online two-week interdisciplinary referesher course in "Advanced concepts in developing MOOCS" from **October 06-20, 2021** conducted by Teaching Learning Centre, Ramanujan College, University of Delhi, New Delhi, India.

iv) Successfully completed a 4-Week Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education" from **September 01- September 30, 2020** conducted by Teaching Learning Centre, Ramanujan College, University of Delhi, New Delhi, India.

v) One-week online Professional Training on "Teaching-Learning Process using Virtual Platforms" organized by the Department of Commerce, Aligarh Muslim University, Aligarh from **16th to 21st August 2020.**

vi) Poster presentation in XXVII Congress of the International Society on Thrombosis and Haemostasis being held in Melbourne, Australia from **July 6 – 10, 2019** organised by International Society on Thrombosis and Haemostasis (ISTH), USA.

vii) Oral Presentation, International Conference on Recent Advances in Medical Science (ICRAMS) held in Brussels, Belgium on **13-14 June 2018.**

Reviewer of the Journals

- Scientific Reports
- Clinical Science
- International Journal of Biological Macromolecules
- Bioscience Reports
- Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy
- Journal of Biomolecular Structure & Dynamics
- Pediatric Research
- ACS Omega
- Journal of Molecular Liquids

Life Membership of Society

- National Environmental Science Academy (NESA), New Delhi, India
- Indian Academy of Biomedical Sciences, India
- Asia-Pacitic Society on Thrombosis and Hemostasis (APSTH)