

Dr. Riyaz Ahmad Mir

Additional Professor, Department of Biochemistry, AIIMS, New Delhi

Address: Room No 3046B, 3rd Floor, Teaching block,

Department of Biochemistry

All India Institute of Medical Sciences

Ansari Nagar, New Delhi-110029

Employment Record:

Additional Professor	(2023–present)
Associate Professor	(2020–2022)
Assistant Professor	(2016–2020)

Research Experience:

Postdoc Fellow, University of Nebraska Medical Center, USA	(2011–2016)
PhD, Biochemistry, AIIMS, New Delhi	(2005–2011)

Reviewer and Editorial Board Member:

- Frontiers in Oncology
- GENE
- Editorial board member Translational Pathology and Laboratory medicine
- Editorial board member Clinical pathology and research Journal

Research focus of the lab: (Cancer Biology and Regenerative medicine)

We are a dedicated team of researchers focused on understanding the role of the R2TP complex in malignancy. The R2TP complex is a co-chaperone of Hsp90, involved in the assembly and stabilization of various macromolecular complexes in the cell. The interactions and collaborative functions of the R2TP complex with its clients remain poorly understood and unexplored. Our research delves into the molecular associations of the complex whilst cancer progression and how it can potentially be targeted for therapeutic interventions.

Additionally, we explore the functions of tumour suppressors, crucial proteins that play a pivotal role in preventing the uncontrolled growth of cancer cells. Understanding how these proteins operate and how they can be manipulated is a key aspect of our work.

Furthermore, our lab is also interested in the effects of genetic manipulation in mammalian, inner ear cells. This area of research is important for understanding hearing loss and other inner ear disorders, and it has implications for the development of potential treatments.

We are committed to advancing knowledge in these areas and contributing to the development of novel strategies for treatment. To learn more about our ongoing projects and recent discoveries, please email riyaz978@gmail.com.



L to R: Spriha, Pankaj, Nishant, Chintan, Vivek, Bharat, Ayesha, Usman, Dakshita

Present Lab members:

1. Ayesha Rahman, Ph.D. Scholar



Email Address

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ORCID

<https://orcid.org/0000-0003-4591-3738>

LinkedIn

Ayesha Rahman | LinkedIn

Ayesha Rahman joined the Department of Biochemistry, AIIMS, New Delhi, in October 2022 as a Ph.D. Scholar under the supervision of Dr. Riyaz Ahmad Mir. Her research focuses on the Effect of Genetic Manipulation in Mammalian Inner Ear Cells, thesis entitled “with interests in Regenerative Medicine, CRISPR Technology, Gene Therapy, Transcriptomics, Stem Cells, and Molecular Biology. Ayesha qualified multiple national-level exams, including ICMR-JRF (AIR 51), CSIR-NET-JRF 2025, (AIR-150), GATE (XL), TIFR–JGEEBILS, and AIIMS Ph.D. Entrance (AIR 2). Secured (AIR 1) in Jamia Millia Islamia M.Sc. Biosciences Entrance Examination and Ph.D. Entrance Examination (Dept. of Biosciences & Biotechnology) 2022. She completed her M.Sc. in Biosciences from Jamia Millia Islamia (New Delhi)

CONFERENCES/CERTIFICATIONS

1. First Prize for Best Oral Presentation at BIOPHYSIKA 2026 Jamia Millia Islamia, New Delhi. 2026
2. First Prize for Best Poster Presentation at VIROCON-2025, at Indian Virological Society (IVS) and ICMR-National Institute of Virology (ICMR-NIV), Pune, Maharashtra 2025

3. First Prize for Best Poster Presentation at AIRSA–AIRCON 2025 at AIIMS, New Delhi
4. Certificate of Appreciation for presenting Poster in Ph.D. category in 4th Annual Research Day 2025 at AIIMS New Delhi
5. Presented my thesis work and secured First Prize for Best Poster Presentation at the 1st International Interdisciplinary Science Congress: Young Scholars Meet (I-ISC-2024) at Jamia Millia Islamia, New Delhi.
6. Presented a project at NBRCOM 2024, organized by SCMM, JNU; AIIMS, New Delhi, and received a Token of Appreciation and certificate for poster presentation.
7. Presented research work and won the First Prize for Best Presentation at the National Conference held at Aligarh Muslim University.
8. Presented my poster at the ACBICON 2024 conference in Chandigarh and participated in the Pre-Conference Workshop on Bioinformatics Approaches for Transcriptomics Data Analysis.

WORKSHOPS

1. Participated in workshop CRISPR based Technologies for cell, Virus, and Animal Genome Editing in 7th international conference on Translation Research from AIIMS
2. Completed one Month Summer Training and Internship Program on “NEXT GEN Sequencing” In association with Pulse, AIIMS, New Delhi
3. Completed 3 Days workshop Hands on Training on 3D spheroid and organoid culture-Tools for Human Health Research from Jawaharlal Nehru University
4. Seminar cum Workshop on Flow cytometry and Proteomics conducted by BIOGENE INDIA.

EXTRACURRICULAR ACTIVITIES

- o Lifetime Member of All India Research Scholars Association (AIRSA)
- o Member of society of Young Scientist (SYS) AIIMS, New Delhi
- o Member of Biosciences Subject Association, Jamia Millia Islamia

- o Awarded the 1st prize in ANTC Art Exhibition award in 7th AIIMS Annual Neurotrauma Conference
- o Awarded the 2nd prize in “HEENA GLAM” by Society of Young Scientist, AIIMS.

2. Pankaj Keshari, SRF



Pankaj’s work is focused on the development of novel gene therapies for hearing loss through an integrated approach combining molecular biology, stem cell science, and regenerative medicine. He aims to design innovative therapeutic strategies that target the underlying causes of auditory dysfunction and inner ear degeneration. By combining gene delivery systems with stem cell-based approaches, he seeks to develop next-generation treatments capable of restoring hearing function and advancing translational solutions for patients with hearing impairment.

3. Hema Yadav, PhD student



Hema studies the role of the R2TP complex in the etiology of thyroid cancer. She completed her M.Sc. Medical Biochemistry in AIIMS, New Delhi in 2021. Her Master's thesis explored the role of B cells in a spectrum of Tuberculosis. She has qualified CSIR JRF and DBT JRF.

4. Dr. Spriha Saxena, MD student



She joined the lab in February 2024. She works on expression analysis of proteins in thyroid cancer. She is interested in pursuing a research oriented teaching career

5. Chintan Datta, PhD Student



She completed her M.Sc. in Medical Biotechnology from Postgraduate Institute of Medical Education and Research in 2024. Her master's dissertation focused on evaluating the performance of various creatinine-based glomerular filtration rate estimating equations (eGFR) against measured GFR (mGFR) by iohexol clearance using dried blood spot sampling.

She qualified the ICMR-BRET JRF Fellowship Examination in dec 2024 as well as the CSIR-NET (LS) examination in 2024. Currently, she am pursuing my Ph.D. in the Department of Biochemistry at All India Institute of Medical Sciences. She joined the lab in November 2025, where her research focuses on understanding the role of the R2TP complex in cervical cancer.

6. Dakshita Joshi, PhD student



Dakshita joined the Department of Biochemistry, AIIMS New Delhi as a PhD scholar in march 2026. She completed her MSc from the same department in August 2025 under the guidance of Dr. Pragyan Acharya.

During her master's work, she evaluated chemotactic ability of neutrophils in patients with Acute-on-Chronic Liver Failure (ACLF) as compared to healthy individuals.

Currently, her PhD research focuses on understanding the role of R2TP bridging peptides in controlling the activity of tumor suppressors in cervical cancer cell lines.

She has qualified competitive exams including IIT-JAM Biotechnology, AIIMS PG, GATB, GATE XL, AIIMS PhD, ACTREC JRF, and CSIR NET Life Sciences.

6. Bharat Bhushan, Data Entry Operator.

Manages finances and files of the lab

Alumni

Mahivon Shadang (completed her PhD in 2025) currently doing postdoc

Dr. Deepika verma (completed her PhD in 2025) Joined as Biochemist dept of Lab Medicine Aims

Dr. Anurag (completed his PhD in 2025) (Faculty AIIMS Patna)

Aruna Armugam completed her MS.c from Lab(doing PhD in Germany)

Nishkarsh Jain completed his MS.c from Lab (Currently doing PhD at IISC Bangalore)

Dheeraj , Moni,MOIEN did part of their Phd from my lab

Publications:- Last two years

2025

Shadang M, Singh DK, Keshari P, Chauhan SS, Akhter Q, **Mir RA** et al. The R2TP complex stabilises E7 to drive human papillomavirus-mediated pathogenesis in cellular models of cervical cancer. *Virol J.* 2026;23(1):66. doi:10.1186/s12985-026-03070-z. 9 (corresponding author)

1. Rahul M, Keshari P, **Mir RA**, Tewari N, Mathur V, Yadav R, et al. Impact of intracanal medicaments on cell cycle, viability and differentiation of human apical papilla mesenchymal stem cells (hAP-MSCs). *Aust Endod J.* 2026;52(1):110–123. doi:10.1111/aej.70033. (corresponding author)
2. Zaman MS, Naher S, Anwar T, Yadav R, Ranjan P, **Mir RA**, et al. Elevated neutrophil elastase and myeloperoxidase mRNA expressions in patients with metabolic syndrome: a cross-sectional study. *Int J Res Med Sci.* 2025;13(11):4622–4626. doi:10.18203/2320-6012.ijrms20253579.
3. Verma D, Chauhan SS, Kumar J, Akhter Q, Thakar A, **Mir RA**, et al. Overexpression of suppressor of cytokine signaling in oral dysplasia and cancer: a biomarker of tumor progression and good prognosis. *Indian J Clin Biochem.* 2025; doi:10.1007/s12291-025-01353-w. (corresponding author)
4. Shadang M, Ahmad **Mir R**. PIH1D1 and RPAP3, components of the PAQosome: emerging roles in cellular physiology. *Mol Cell Biol.* 2026;46(4):375–390. doi:10.1080/10985549.2025.2596726. (corresponding author)
5. Showket F, Akhtar A, Parveen S, Ayaz MO, Keshari P, **Mir R A et al**. Functional characterization of a clinically significant variant of IGF1R (M1054I): a critical residue involved in defining the binding of small molecules in the allosteric pocket of IGF1R. *Growth Factors.* 2026;44(1):42–52. doi:10.1080/08977194.2025.2606677.
6. Verma D, Chauhan SS, Kumar J, Arora M, Akhter Q, **Mir RA et al**. Evaluation of Epidermal Growth Factor Receptor and Its Inducible Feedback Inhibitor Leucine Rich Repeats and Immunoglobulin Like Domains 1 as Prognostic Marker in Oral Cancer. *Mol Carcinog.* 2026 May;65(5):630–641. doi: 10.1002/mc.70103. (corresponding author)
7. Mendiratta M, Pandey P, Pandey S, Rai S, Mendiratta M, **Mir RA, et al**. Cytokine Signatures Outperform Immune Subsets in Machine Learning Models for Predicting Acute Graft-Versus-Host Disease at Neutrophil Engraftment. *J Immunol Res.* 2026;2026(1):e1066614. doi: 10.1155/jimr/1066614.

2024

1. Boruah, M., Agarwal, S., Mir, R. A., Choudhury, S. D., Sikka, K., Rastogi, S., ... & Sharma, M. C. (2024). Unravelling the Reasons Behind Limited Response to Anti-PD Therapy in ATC: A Comprehensive Evaluation of Tumor-Infiltrating Immune Cells and Checkpoints. *Endocrine Pathology*, 35(4), 419-431.(corresponding author)

2. Dhiraj Kumar Singh¹, Bimal Jit, Rashmi Gupta, Amit Kumar Verma, Riyaz Ahmad Mir. Bioinformatics analysis reveals PIH1D1 as an important prognostic marker in breast cancer *Journal of Applied Biology & Biotechnology* Vol. XX(X), pp. 1-11, 2024 (corresponding author)
3. .Yadav, V. S., Bhatia, A., Yadav, R., Makker, K., Singh, D. K., & Mir, R. A. (2024). Effect of initial periodontal therapy on metallothionein levels in smokers and non-smokers with periodontitis. *Odontology*, 112(4), 1353-1360
4. .Mohini Mendiratta, Meenakshi Mendiratta, Shuvadeep Ganguly, Sandeep Rai, Ritu Gupta, Lalit Kumar, Sameer Bakhshi, Vatsla Dadhwal, Deepam Pushpam, Prabhat Singh Malik, Raja Pramanik, Mukul Aggarwal, Aditya Kumar Gupta, Rishi Dhawan, Tulika Seth, Manoranjan Mahapatra, Baibaswata Nayak, Thoudam Debraj Singh, Sachin Kumar, Riyaz Ahmed Mir, Gurvinder Kaur, Hariprasad GuruRao, Mayank Singh, Chandra Prakash Prasad, Hridayesh Prakash, Sujata Mohanty, Ranjit Kumar Sahoo. Concurrent hypoxia and apoptosis imparts immune programming potential in mesenchymal stem cells: Lesson from acute graft-versus-host-disease model.(2024) 15:381
5. Arti Saini, Inder Singh, Mukesh Kumar, Divya Madathiparambil Radhakrishnan, Ayush Agarwal, Divyani Garg, Arunmozhimaran Elavarasi, Rahul Singh, Vivek Chouhan, Sandeep, Anu Gupta, Venugopalan Yamuna Vishnu, Mamta Bhushan Singh, Rohit Bhatia, Ajay Garg, Neerja Gupta, Riyaz Ahmad Mir, Mohammed Faruq, Balachandran Krishnamma Binukumar, Achal Kumar Srivastava, Roopa Rajan. Genetic Landscape of Dystonia in Asian Indians doi.org/10.1002/mdc3.14325
6. Hossain MM, Khalid A, Akhter Z, Parveen S, Ayaz MO, Bhat AQ, Badesra N, Showket F, Dar MS, Ahmed F, Dhiman S, Kumar M, Singh U, Hussain R, Keshari P, Mustafa G, Nargorta A, Taneja N, Gupta S, Mir RA, Kshatri AS, Nandi U, Khan N, Ramajayan P, Yadav G, Ahmed Z, Singh PP, Dar MJ. Discovery of a novel and highly selective JAK3 inhibitor as a potent hair growth promoter. *J Transl Med.* 2024 Apr 18;22(1):370. doi: 10.1186/s12967-024-05144-4

Publications from my lab can be visited using

URL: <https://www.ncbi.nlm.nih.gov/myncbi/riyaz.mir.2/bibliography/public/>