

Snober Shabnam Mir, Ph. D

Professor & Head
Department of Biosciences
Integral University
Lucknow



Teaching Interests:

- Cell and Molecular Biology, Immunology and Animal Biotechnology.

Research Trajectories

1. Elucidation of the role of Chaperonopathy and p53 aggregation in tumorigenesis.
2. Identification of modulators of protein quality control pathways in neurodegenerative diseases and cancer specifically with respect to the autophagy pathway.
3. Understanding the role of Hsp90 and small-Hsps in cross talk between apoptosis and autophagy pathways.

All		Since 2019
Citations	1489	915
h-index	20	15
i10-index	33	23

Experience:

Post-Ph.D. experience: 19 years

- Worked as Postdoctoral fellow in the field of Molecular Cell Biology at Molecular and Structural Biology Division, Central Drug Research Institute (CSIR-CDRI), Lucknow, India (European Commission sponsored project) in the research group of Dr. Saman Habib.
- Worked as Postdoctoral Fellow with Molecular Chaperone Group, Cancer Research Center, Medical College of Georgia, Augusta, GA , USA in the research group of Dr. Anil Cashikar.
- Worked as Junior Demonstrator at Department of Experimental Medicine and Biotechnology, PGIMER, Chandigarh. Taught Cell and Molecular Biology at Post Graduate level.

Educational Qualifications:

- **Ph.D.** (2005) in Biotechnology (Cancer Biology) from Post Graduate Institute of Medical Education and Research (Indian Council of Medical Research), Chandigarh, India.
Title of thesis: *Apoptosis in Non-small Cell Lung Cancer: Role of the Bcl-2 Gene Family Members.*
- **M.Sc.** (1999) in Biotechnology, **Ranked Second**, Interdisciplinary Biotechnology Unit, Aligarh Muslim University, Aligarh, India.
Title of thesis: *Effect of Sugars on Thermal and Chemical Denaturation of Rabbit Serum Albumin (1999).*
- **B.Sc.** (1997) from Women's College, Aligarh Muslim University, Aligarh, India.
Subjects: Chemistry (Hons), Zoology and Botany.

- **Intermediate** (1994) from Aligarh Muslim University, Aligarh. Subjects: English, Biology, Physics, Chemistry.
- **Matriculation** (1992) from Jammu and Kashmir State Board of School Education. J&K Board- **District Topper**.

Contributions made as a Group Leader:

Number of Doctoral Students Supervised:

- Number of Ph.D. Awarded: **12+1** (Co-Supervisor)

Awards and Recognitions:

1. Outstanding Researcher of the Year Award-2023 (Science/Biological Sciences/Engineering)-Research Grant of Rs. 2,00,000/- (IU/RO/R&D/Research Grant/2023/494-2) from Integral University, Lucknow.
2. Nominated for SERB-STAR award as the project completed under YSS scheme (YSS/SERB/001902) was rated Excellent by SERB.
3. Recipient of honorarium from DBT, Government of India, under the Bio Care Scheme (2013-2016).
4. Selected for participation in the 6th Science Conclave: A Congregation of Nobel Laureates at IIT Allahabad, India (8-14 December 2013)
5. Rajni Kant Baxi Young Scientist Award for the Best Poster Presentation at International Conference on Advances in Cancer Research, Indian Association of Cancer Research (IACR), Thiruvananthapuram, Kerala, India. (January 2003).
6. Research Fellowship, Post Graduate Institute of Medical Education and Research, Chandigarh (1999- 2004).
7. Research Fellowship, Department of Biotechnology, Govt. Of India. (1997-1999).
8. Bharat Sewa Fellowship (1997).
9. Merit Certificate for Academic Excellence – 1997

Grants Ongoing:

1. Project approved by DST-SERB-SURE of Rs. 28,80,000/- entitled “An Approach Towards Improving Care for Alzheimer’s Disease and Type 2 Diabetes Mellitus Through the Design of Nano-Chaperones Targeting Amyloid-beta Peptide and Islet Amyloid Polypeptide Aggregation” as Co-PI (SUR/2022/002111).
2. Project approved by Science and Engineering Research Board (SERB-CRG) Core Research Grant of Rs. 36,45,400/- entitled "Elucidation of Hsp90 Inhibition in Combination with Repurposed Drug Metformin as a Therapeutic Strategy Against Lung Cancer" as Principal Investigator (CRG/2022/005220).

Grants Completed:

1. Project approved as Institutional Grant for Research of Rs. 2,00,000/- entitled “Elucidating the role of “Chaperome network” as a modulator of Epithelial Transition (EMT) in lung cancer” as Principal Investigator (IUL/IIRC/SMP/2022/002).
2. Project approved as Institutional Grant for Research of Rs. 1,50,000/- entitled “Evaluation of the role of Phloretin and β -sitosterol as an MMP inhibitor in adjuvant therapy with Simvastatin for prevention of Breast cancer metastasis” as Co-PI (IUL/IIRC/SMP/2022/008).

3. Project funded under the Bio-CARE scheme of Department of Biotechnology, New Delhi of Rs 32,80,422/- entitled “Role of Molecular chaperones and p53 in targeting of client proteins to autophagy” as Principal Investigator (SR/FT/LS-43/2011).
4. Project funded by Science and Engineering Research Board of Rs. 27,57,000/- entitled “Role of p53 Aggregation in Dysregulation of Autophagy: Implications for Tumorigenesis and Targeted Therapy” as Principal Investigator (YSS/2015/001902).

Project Approved Under DAAD-RISE Worldwide Internship Exchange Scheme:

1. Three months internship project approved under DAAD-RISE worldwide scheme entitled “**Role of Hsp90 in regulating crosstalk between apoptosis and autophagy**” (2022-2023)
 - a) **Miss Olivia Marie Reiter, student from University of Tübingen joined our laboratory as a DAAD-RISE Intern. Her internship was fully funded by DAAD-RISE fellowship.**
2. Three months internship project approved under DAAD-RISE worldwide scheme entitled “**Role of Hsp90 in regulating crosstalk between apoptosis and autophagy**” (2021-2022)
3. Three months internship project approved under DAAD-RISE worldwide scheme entitled “**Elucidating the cross-talk between Unfolded Protein response (UPR) and mTor: Implications of HSP90 inhibition**” (2018-19)
4. Three months internship project approved under DAAD-RISE worldwide scheme entitled “**Role of Chaperonopathy and p53 in targeting of client proteins to autophagy**”. (2017-18)
 - b) **Mr. Paul N. Maier, student from University of Bonn (Germany) worked in our laboratory as a DAAD-RISE Intern. His internship was fully funded by DAAD-RISE fellowship.**
5. Three months internship project approved under DAAD-RISE worldwide scheme entitled “**Role of p53 in targeting of client proteins to autophagy**”. (2016-17)
6. Six months internship project approved under DAAD-RISE worldwide scheme entitled “**Protein Aggregates as Potential Cancer Biomarkers: Functional Selection and Impact on Cancer Prognosis**”. (2015-16)

Project Approved as a Mentor under SERB-NPDF programme:

1. Project Approved as a mentor of Dr. Ranjana Kumari Kanchan under SERB-NPDF programme entitled “Role of Focal Adhesion Kinases (FAK) in cancer stem cell survival and metastasis in triple negative breast cancer (TNBC)”. Grant Amount: 20 lakhs.

Patents:

1. Patent Application Number- 202211008569
 Patent Application Title- Combination of Metformin with neem derived Hsp90 inhibitor Gedunin to combat non-small lung cancer
 Filing date- 18-02-2022
 Publication date-20-05-22
2. Patent Application Number- 202111057433
 Patent Application Title- Depeptidyl peptidase-4 inhibitor and preparation there of
 Filing date- 10-12-2021
 Publication date-20-05-22

3. German Utility Model Patent Application Number- 202022101151.6
Patent Application Title- Polyherbal formulation for preventing post covid intense hair loss
Filing date- 02.03.2022
Publication date-09-03-2022

Research Publications:

1. Genotoxicity and cytotoxicity assessment of 'forever chemicals' in zebrafish (*Danio rerio*). Singh S, Gautam K, Mir SS, Anbumani S. Mutation Research - Genetic Toxicology and Environmental Mutagenesis, 2024, <https://doi.org/10.1016/j.mrgentox.2024.503788>. **IF: 4.1.**
2. Drug repurposing of selected antibiotics: an emerging approach in cancer drug discovery. Bano N, Parveen S, Saeed M, Siddiqui S, Abohassan M, Mir SS. ACS Omega, 2024, <https://doi.org/10.1021/acsomega.4c00617>. **IF: 4.1.**
3. Chemical profiling and anticancer potential of methanolic extract of Panch phoron spices in lung cancer. Parveen et al., Biochemical and Cellular Archives, 2024, Vol 24, Issue 1, p915. doi: 10.51470/bca.2024.24.1.915.
4. Trichoderma As a Proficient Biocontrol Agent For Phytopathogenic Fungi – Mechanism Of Action And Genetic Advances. Hamid S, Mir SS, Surma SB, Parveen S, Padder BA, Dar GH and Shah MD. Applied Biological Research (2024). doi: 10.48165/abr.2024.26.01.1.
5. Exploiting Transcription Factors to Target EMT and Cancer Stem Cells for Tumor Modulation and Therapy. Khan AQ, Hasan A, Mir SS, Rashid K, Uddin S, Stienhoff M. Seminars in Cancer Biology (2024). <https://doi.org/10.1016/j.semcancer.2024.03.002>. **IF: 12.1.**
6. Current scenario and global perspectives of citrus fruit waste as a valuable resource for the development of food packaging film. Dubey P, Tripathi G, **Mir SS**, Yousuf O. Trends in Food Science & Technology (2023). Doi: <https://doi.org/10.1016/j.tifs.2023.104190>. **IF: 15.3.**
7. Flavonoid Myricetin as Potent Anticancer Agent: A Possibility towards Development of Potential Anticancer Nutraceuticals. Trivedi A, Hasan A, Ahmad R, Siddiqui S, Srivastava A, Misra A, **Mir SS**. Chinese Journal of Integrative Medicine (2023). Doi: <https://doi.org/10.1007/s11655-023-3701-5>. **IF- 2.9.**
8. Targeted Inhibition of Hsp90 in Combination with Metformin Modulates Programmed Cell Death Pathways in A549 Lung Cancer Cells. Hasan A, Khamjan N, Lohani M and **Mir SS**. Applied Biochemistry and Biotechnology (2023). doi: <https://doi.org/10.1007/s12010-023-04424-x>. **IF-3.0.**
9. Untangling the complexity of heat shock protein 27 in cancer and metastasis. Rizvi SF, Hasan A, Parveen S and **Mir SS**. Archives of Biochemistry and Biophysics (2023). doi: 10.1016/j.abb.2023.109537. **IF- 4.14.**
10. Therapeutic role of mTOR inhibitors in control of SARS-CoV-2 Viral Replication. Khalid T, Hasan A, Fatima JE, Faridi SA, Khan AF, **Mir SS**. Molecular Biology Reports (2022). doi: 10.1007/s11033-022-08188-1. **IF- 2.74.**
11. Novel Insights into Epigenetic Control of Autophagy in Cancer. Parveen S, Rizvi SF, Hasan A, Afaq U, **Mir SS**. OBM Genetics (2022), doi:10.21926/obm.genet.2204xxx.
12. Molecular chaperones in DNA repair mechanisms: role in genomic instability and proteostasis in cancer. Hasan A, Rizvi SF, Parveen S and **Mir SS**. Life Sciences (2022). **IF- 6.78**

13. Crosstalk between ROS and autophagy in tumorigenesis: understanding the multifaceted paradox. Hasan A, Rizvi SF, Parveen S, Pathak N, Nazir A and **Mir SS**. *Frontiers in Oncology*, 12:852424. doi: 10.3389/fonc.2022.852424 (2022). **IF- 6.24**
14. Sirtuins and Autophagy in Age-Associated Neurodegenerative Diseases: Lessons from the *C. elegans* Model. Naseer A, **Mir SS**, Takacs-Vellai K, Nazir A. *International Journal of Molecular Sciences*, 22(22):12263. <https://doi.org/10.3390/ijms222212263> (2021) **IF- 6.20**
15. Dietary factors and SARS-CoV-2 contagion: in silico studies on modulation of viral and host proteins by spice actives. Srividya K, **Mir SS**, Thiagarajan S, Nazir A. *Journal of Biomolecular Structure and Dynamics*, 1-12, doi: 10.1080/07391102.2021.1948448 (2021). **IF-3.392**
16. Self-healing in concrete using ureolytic species of bacteria and yeast. Singh N, Ahmad J, **Mir SS**. *IOP Conference Series: Materials Science and Engineering*. 1116(1), 012154, doi:10.1088/1757-899X/1116/1/012154. (2021).
17. Probing the Structure-Function relationship and amyloidogenic propensities in natural variants of apolipoprotein A-I. Ma'arfi F, Chandra S, Fatima JE, Khan MY, **Mir SS**, Yusuf MA. *Biochem Biophys Rep*. 29;24:100815. doi: 10.1016/j.bbrep.2020.100815 (2020). **IF-2.613**
18. Approaches for prevention and environmental management of novel COVID-19. Tabish M, Khatoon A, Alkahtani S, Alkahtane A, Alghamdi J, Ahmed SA, **Mir SS**, Albasher G, Almeer R, Al-Sultan NK, Aljarba NH, Al-Qahtani WS, Al-Zharani M, Nayak AK, Hasnain MS. *Environ Sci Pollut Res*, <https://doi.org/10.1007/s11356-020-10640-3> (2020). **IF- 4.223**
19. Hsp90 inhibitor gedunin causes apoptosis in A549 lung cancer cells by disrupting Hsp90: Beclin-1: Bcl-2 interaction and downregulating autophagy. Hasan A, Haque E , Hameed R, Maier PN, Irfan S, Kamil M, Nazir A, **Mir SS**. *Life Sciences*, 256:118000, <https://doi.org/10.1016/j.lfs.2020.118000> (2020). **IF- 6.78**.
20. Advanced glycation end products (AGEs), protein aggregation and their cross talk: new insight in tumorigenesis. Haque E, Kamil M, Hasan A, Irfan S, Sheikh S, Khatoon A, Nazir A, **Mir SS**. *Glycobiology*, 30(1), 49–57, <https://doi.org/10.1093/glycob/cwz073> (2019). **IF- 4.313**
21. Association of variants rs7903146 and rs290487 of TCF7L2 gene with diabetic nephropathy and co-morbidities (hypertension and dyslipidemia) in type 2 diabetes mellitus. Abbas S, Raza ST, **Mir SS**, Siddiqi Z, Zaidi A, Zaidi ZH, Mahdi F. *Meta Gene*, DOI: <https://doi.org/10.1016/j.mgene.2019.100561>. (2019) **IF- 0.536**
22. Association of *GSTP1* gene polymorphism with diabetic nephropathy and co-morbidities (hypertension and dyslipidemia) in Type 2 diabetes mellitus. Abbas S, Raza ST, **Mir SS**, Siddiqi Z, Mahdi F. *British Journal of Biomedical Science*, DOI: 10.1080/09674845.2019.1595870 (2019) **IF- 3.829**
23. Hydroxyl Group Difference between Anthraquinone Derivatives Regulate Different Cell Death Pathways via Nucleo-Cytoplasmic Shuttling of p53. Kamil M, Haque E, **Mir SS**, Irfan S, Hasan A, Sheikh S, Alam S, Ansari KM, Nazir A. *Anticancer Agents Med Chem*. doi: 10.2174/1871520618666181029133041. (2018) **IF- 2.505**
24. Blocking mutation independent p53 aggregation by emodin modulates autophagic cell death pathway in lung cancer. Haque E, Kamil M, Irfan S, Sheikh S, Hasan A, Nazir A, **Mir SS**. *International Journal of Biochemistry and Cell Biology*, 96 (2018), 90–95. **IF- 5.085**
25. PI3K/AKT Pathway is inhibited in NSCLC Cell Line A549 by Downregulation of EGFR via an HSP-90 Inhibitor Gedunin. Hasan A, Haque E, Kamil M, Fatima JE, Irfan S, Khatoon A, Mohd. Yusuf MA, **Mir SS**. Abstract in Proceedings of

- International Conference on Cell Death in Cancer and Toxicology (Organized by CSIR-IITR from Feb 20-22, 2018) *Cancer Medicine*, 7 (Suppl Suppl 1), (2018), 25-26, doi: 10.1002/cam4.1413 (Full-length manuscript in preparation) **IF- 4.452**
26. Role of p53 aggregation in dysregulation of autophagy in cancer. **Mir SS**, Abstract in Proceedings of International Conference on Cell Death in Cancer and Toxicology (Organized by CSIR-IITR from Feb 20-22, 2018) *Cancer Medicine*, 7 (Suppl Suppl 1), (2018), 25-26, doi: 10.1002/cam4.1413. **IF- 4.452**
 27. Role of variants rs5030717 and rs5030718 of TLR4 in the risk prediction of nephropathy, hypertension and dyslipidemia in type 2 diabetes mellitus. Abbas S, Raza ST, **Mir SS**, Siddiqui Z, Zaidi A, Zaidi ZH, Mahdi F. *British Journal of Biomedical Science*, 2018, DOI: 10.1080/09674845.2018.1477033. **IF- 3.829**
 28. ADNCD: a compendious database on anti-diabetic natural compounds focusing on mechanism of action. Khatoon A, Rashid I, Shaikh S, Rizvi SMD, Shakil S, Pathak N, **Mir SS**, Ahmad K, Hussain T, Srivastava P. *3 Biotech.* 8 (2018), 361. **IF- 2.406**
 29. Assessment of ureolytic bacteria for self-healing concrete. Singh N, Ahmad J, **Mir SS**. *International Journal of Recent Scientific Research*, 9 (2018), 25350-25355.
 30. Osmotic stress induced toxicity exacerbates Parkinson's associated effects via dysregulation of autophagy in transgenic *C. elegans* model. Jadiya P, **Mir SS**, Nazir A. *Cellular signalling*, 45 (2018), 71-80. **IF- 4.315**
 31. Molecular signatures of epithelial-mesenchymal transition and their role in cancer progression. Ansari A, Hasan A, Haque E, Irfan S, **Mir SS**. *Asian Journal of Pharmacy and Pharmacology*, 4 (2018), 724-730.
 32. Ameliorative potential of nanoparticles against 4-(Methyltyrosine)-1-(3-pyridyl)-1-butanone (NNK) induced toxicity. Jahan R, Raza S, Dhasmana A, Lohani M, **Mir SS**. *Biochemical and Cellular Archives*, 2017.
 33. ER chaperone GRP78 regulates autophagy by modulation of p53 localization. Kamil M, Haque E, Irfan S, Sheikh S, Hasan A, Nazir A, Lohani M, **Mir SS**. *Frontiers in Bioscience, Elite*, 9 (2017), 64-76.
 34. Protein Aggregation: A New Challenge in Type-II Diabetes. Haque E, Kamil M, Irfan S, Hasan A, Sheikh S, **Mir SS**. *Advances in Biotechnology & Microbiology*, 3 (2017) AIBM.MS.ID.555604.
 35. Association study of inflammatory genes with rheumatic heart disease in North Indian population: A multi-analytical approach. Gupta U, **Mir SS**, Garg N, Agarwal SK, Pande S, Mittal B. *Immunology Letters*, 174 (2016), 53-62. **IF- 3.685**
 36. A Systematic RNAi Screen of Neuroprotective Genes Identifies Novel Modulators of Alpha Synuclein Associated Effects in Transgenic *Caenorhabditis elegans* Jadiya P, Fatima S, Baghel T, **Mir SS**, Nazir A. *Mol Neurobiol.* 53 (2016), 6288-6300. **IF- 5.590**
 37. Terpenoids with Antifungal Activity Trigger Mitochondrial Dysfunction In *Saccharomyces cerevisiae*. Haque E, Irfan S, Kamil M, Sheikh S, Hasan A, Ahmad A, Lakshmi V, Nazir A, **Mir SS**. *Microbiology*, 85 (2016), 436-443. **IF- 1.156**
 38. Anti-malarial Treatment: Herbal medicine a ray of hope. Singh K, Hasan A, Ahmad A, **Mir SS**. *Int J Herb Med* (2016), 4: 119-125.
 39. The Chromone Alkaloid, Rohitukine, Affords Anti-Cancer Activity via Modulating Apoptosis Pathways in A549 cell line and Yeast Mitogen Activated Protein Kinase (MAPK) pathway. Safia, Kamil M, Jadiya P, Sheikh S, Haque E, Nazir A, Lakshmi V, **Mir SS**. *PLoS ONE* 10 (2015), e0137991. doi:10.1371/journal.pone.0137991. **IF- 3.240**
 40. Nexrutine inhibits azoxymethane-induced colonic aberrant crypt formation in rat colon and induced apoptotic cell death in colon adenocarcinoma cells. Alam S, Pal

- A, Kumar R, **Mir SS**, Ansari KM. *Molecular Carcinogenesis*, 55 (2015), DOI: 10.1002/mc.22368. **IF- 4.784**
41. *Cissus quadrangularis* Linn. Stem Ethanolic Extract liberates Reactive Oxygen species (ROS) and induces Mitochondria Mediated Apoptosis in KB Cells. Sheikh S, Siddiqui S, Dhasmana A, Safia, Haque E, Kamil M, Lohani M, Arshad M, **Mir SS**. *Pharmacognosy Magazine*, 11 (2015), 365374. **IF- 1.085**
 42. Anticancer activity of *Cissus quadrangularis*: An In-Vitro 2D model based study. Sheikh S, Dhasmana A, Siddiqui S, Safia, Haque E, Kamil M, Lohani M, Arshad M, **Mir SS**. *International Journal of Sciences: Basic and Applied Research*, 2015. **IF- 0.415**
 43. Interaction pattern of fullerenes (c20-c180) and carbon nanotubes with different forms of dna: a computational biology approach. Firdaus S, Dhasmana A, Haque S, **Mir SS**, Jahan R, Bano T, Srivastava V, Khan S, Lohani M. *Theoretical biology forum*, 108 (2015), 41-55. **IF- 0.071**
 44. Docking study of the Rohitukine for the prevention of peptic ulcer- A New Target. Mishra SK, Mishra V, Pandey AK, Srivastava A, Tripathi CKM, Palit G, **Mir SS**, Mahdi AA, Agarwal SK, Vijai Lakshmi *The Journal of Phytopharmacology*. 3 (2014), 9-15.
 45. Titanium Dioxide Nanoparticles As Guardian against Environmental Carcinogen Benzo [alpha] Pyrene. Dhasmana A, Jamal QMS, **Mir SS**, Bhatt MLB, Rahman Q, Gupta R, Lohani M. *PLOS One*, 9 (2014), e107068. **IF- 3.240**
 46. Influence of protein tyrosine phosphatase gene (PTPN22) polymorphisms on rheumatic heart disease susceptibility in North Indian population. Gupta U, **Mir SS**, Chauhan T, Garg N, Agarwal SK, Pande S, Mittal B. *Tissue antigens*, 84 (2014), 492-496. **IF- 1.348 (2017)**
 47. Pharmacological evaluation of the efficacy of *Dysoxylum binectariferum* stem bark and its active constituent rohitukine in regulation of dyslipidemia in rats. Mishra SK, Tiwari S, Shrivastava S, Sonkar R, Mishra V, Nigam SK, **Mir SS**. *Journal of Natural Medicines*, 2014, 1-9. **IF- 2.343**
 48. Signal transducers and activators of transcription (STATs) gene polymorphisms related with susceptibility to rheumatic heart disease in north Indian population. Gupta U, **Mir SS**, Srivastava A, Garg N, Agarwal SK, Pande S, Mittal B. *Immunology Letters*, 161, (2014), 100–105. **IF- 3.685**
 49. Association of Genetic Polymorphisms in STAT 3, STAT 5b and GWAS Identified *PTPN22* Gene with Rheumatic Heart Disease. Gupta U, Mishra A, Rathore SS, **Mir SS**, Agarwal SK, Garg N, Mittal B. *Molecular Cytogenetics*, (2014), <http://www.molecularcytogenetics.org/content/7/S1/P110> **IF- 2.009**
 50. Antidyslipidemic effect and antioxidant activity of anthraquinone derivatives from *Rheum emodirhizomes* in dyslipidemic rats. Misra SK, Tiwari S, Shrivastava A, Srivastava S, Boudh GK, Chourasia SK, Chaturvedi U, **Mir SS**, Saxena AK, Bhatia G, Lakshmi V. *Journal of Natural Medicines*, (2013), DOI 10.1007/s11418-013-0810-z. **IF- 2.343**
 51. The effect of fusidic acid on *Plasmodium falciparum* elongation factor G (EF-G). Ankit Gupta A, **Mir SS**, Saqib U, Biswas S, Vaishya S, Srivastava K, Siddiqi MI, Habib S. *Molecular and Biochemical Parasitology*, 192 (2013), 39–48. **IF- 1.759**
 52. Antidyslipidemic and Antioxidant Effects of Novel Lupeol-Derived Chalcones. Srivastava S, Sonkar R, Mishra SK, Tiwari A, Balramnavar V, **Mir SS**, Bhatia G, Saxena AK, Lakshmi V. *Lipids*, 48 (2013), 1017–1027 DOI 10.1007/s11745-013-3824-3830. **IF- 1.880**

53. Recycling factors for ribosome disassembly in the apicoplast and mitochondrion of *Plasmodium falciparum*. Gupta A, **Mir SS**, Sinha A, Ralph S, Habib S. *Mol. Microbiology*. 5 (2013), 891-905. **IF- 3.501**
54. Neurodegenerative Diseases: Multifactorial Conformational Diseases and their therapeutic interventions. Sheikh S, Safia, Haque E, **Mir SS**. *Journal of Neurodegenerative Diseases*, (2013), <http://dx.doi.org/10.1155/2013/563481>.
55. Effect of various classes of pesticides on expression of stress genes in transgenic *C. elegans* model of Parkinson's disease. Jadya P, **Mir SS**, Nazir A. *CNS Neurol Disord Drug Targets*. 11 (2012), 976-83. **IF- 4.388**
56. Housekeeping and other metabolic functions of the *Plasmodium* Plastid. Haider A, Gupta A, Vaish S, Kumar B, Charan M, **Mir SS**, Tanveer A, Sinha A, Habib S. *Current Science* 102 (2012), 749-756. **IF- 1.102**
57. Anti-Parkinsonian effects of *Bacopa monnieri*: Insights from transgenic and pharmacological *Caenorhabditis elegans* models of Parkinson's disease. Jadya P, Khan A, Sammi SR, Kaur S, **Mir SS**, Nazir A. *Biochemical and Biophysical Research Communications* 413 (2011), 605-610. **IF- 3.575**
58. Interaction of apicoplast-encoded elongation factor (EF) EF-Tu with nuclear-encoded EF-Ts mediates translation in the *Plasmodium falciparum* plastid. Biswas S, Erin Lim EE, **Mir SS**, Ralph S, Habib S. *International Journal for Parasitology* 41 (2010), 417-427. **IF- 3.981**
59. Ssd1 Is Required for Thermotolerance and Hsp104-Mediated Protein Disaggregation in *Saccharomyces cerevisiae*. **Mir SS**, David F, Cashikar AG. *Mol Cell Biol*. 29 (2009), 187-200. **IF- 4.272**
60. Loss of fragile histidine triad gene expression in advanced lung cancer is consequent to allelic loss at 3p14 locus and promoter methylation. Wali A, Srinivasan R, **Mir SS**, Majumdar S, Joshi K, Behera D. *Mol Cancer Res* 4 (2006), 93-99. **IF- 5.852**
61. Bcl-XL Protein Levels Determine Apoptotic Index in Pancreatic Carcinoma. Sharma J, Srinivasan R, Majumdar S, **Mir SS**, Radotra BD, Wig JD. *Pancreas* 30(2005), 337-342. **IF-3.327**
62. Detection of microsatellite alterations in bronchial washings in squamous cell lung cancer: the first study from India. Malhotra P, Behera D, Srinivasan R, Majumdar S, Wali A, **Mir SS**, Kaur R. *Jpn J Clin Oncol*. 34 (2004), 439-444. **IF- 3.019**
63. Expression of p53 and apoptosis regulatory molecules Bcl-2, Bcl-XL and Bax in locally advanced squamous cell carcinoma of the lung. **Mir SS**, Radhika S, Wali A, Majumdar S, Behera D. *Lung Cancer* 45(2004), 181-188. **IF- 5.705**
64. P-313 Role of bcl-2 gene family members in apoptosis in NSCLC. Behera D, **Mir SS**, Srinivasan R, Majumdar S. *Lung Cancer* (2003), 41- S171. **IF- 5.705**
65. Effect of sugars on rabbit serum albumin stability and induction of secondary structure. **Mir SS**, Khan RH *Biochemistry (Mos.)*, 66 (2001), 1042-1046. (*In Pubmed last name mis-spelt as shabnUm*). **IF- 2.487**

Book Chapters:

1. *Ricinus communis* (Castor Oil Plant). Bano A, Hasan A, Sharma S, **Mir SS**. *Exploring Poisonous Plants*. 1st Edition, CRC Press, (2023) <https://doi.org/10.1201/b23017>.
2. *Unraveling the GRP78 Paradox: From Cancer Promotion to Suppression*. Hasan A, Parveen S, Rizvi SF, **Mir SS**. *Horizons in Cancer Research*. Volume 83, Nova Science Publishers (2022).

3. Natural products: targeted molecular therapeutic opportunities in cancer therapy. Sheikh S, Parveen S, Rizvi SF, Hasan A, **Mir SS**. *Frontiers in Cancer Research*. ISBN: 978-93-94070-62-2, Aargon Press.
4. Bioactive Constituents of Spices as Potential Anti-cancer Agents. Parveen S, Masoor Y, Rizvi SF, Hasan A, **Mir SS**. *Frontiers in Cancer Research*. ISBN: 978-93-94070-62-2, Aargon Press.
5. Molecular players involved in chaperone mediated autophagy and their role in Cancer. Kamil M, Parveen S, Rizvi SF, Hasan A, **Mir SS**. *Frontiers in Cancer Research*. ISBN: 978-93-94070-62-2, Aargon Press.
6. Cancer progression via HSP90 and Matrix Metalloproteinases. Rizvi SF, Khan F, Hasan A, Parveen S, **Mir SS**. *Frontiers in Cancer Research*. ISBN: 978-93-94070-62-2, Aargon Press.
7. Role of Metformin in The Regulation of AMPK/mTOR Pathway in Cancer. Hasan A, Rizvi SF, Tiwari I, Parveen S, Bano N, **Mir SS**. *Frontiers in Cancer Research*. ISBN: 978-93-94070-62-2, Aargon Press.
8. Heat Shock Proteins as Biomarkers for Early-Stage Diagnosis of Lung Cancer. Hasan A, Rizvi, SF, Parveen, S, **Mir SS**. *Detection Systems in Lung Cancer and Imaging*, Volume 1, IOP Publisher, 10-1:10-2. <https://doi.org/10.1088/978-0-7503-3355-9ch10> (2022)
9. Targeting Apicoplast Pathways in Plasmodium. **Mir SS**, Biswas S, Habib S. *Apicomplexan Parasites: Molecular Approaches toward Targeted Drug Development*, Wiley Publications, <https://doi.org/10.1002/9783527633883.ch9> (2011)

Conferences/Workshops as a Resource Person:

1. Chairperson & Advisory Board Member at the International Conference on the theme ‘Novel Paradigms in Pharmaceutical Sciences: An Approach for a Healthier World’ from March 09 - 10, 2024 organized by the Faculty of Pharmacy, Integral University, Lucknow, India.
2. Invited Speaker at the National Conference on “Emerging Trends in Biological Sciences (ETBS)” from 27th to 28th January 2023 organized by Department of Biochemistry, Dr. Ram Manohar Lohia Avadh University, Ayodhya (UP), India.
3. Convener, DST-STUTI Sponsored workshop on “Advanced Molecular Biology Techniques a Hands-on Training Programme on Advanced Molecular Biology Techniques” on 1st -7th December, 2022, under the aegis of Department of Science & Technology, Synergistic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI) Organized by Department of Biosciences, Integral Information & Research Center, Integral University, Lucknow.
4. Resource person in “World Hemophilia Day” held on 19th April, 2022, organized by Integral Institute of Medical Science & Research (IIMSR), Bioengineering and Department of Biosciences, Integral University, Lucknow, Uttar Pradesh, India.
5. Resource person in “Plagiarism and Code of Conduct” from March 2nd -3rd, 2022, organized by Human Resource Development Centre, Integral University, Lucknow, Uttar Pradesh, India.
6. Invited Speaker at the International web conference series “Trends in Nanotechnology” on 15 January 2022, organized by Interdisciplinary Nanotechnology Centre, Aligarh Muslim University, UP, India.

7. Resource person in “National Seminar on Intellectual Property Rights” held on 10th July 2019 at Central Research Institute of Unani medicine Lucknow, Organized by Central Council for Research in Unani Medicine, Ministry of Ayush, GoI.
8. Chairperson at one of the sessions at the “National Conference on Interdisciplinary Advancements in Biochemistry” from March 28th -29th, 2019, organized by Dept. of Biochemistry, Dr. Rammanohar Lohia Avadh University, Ayodhya, Uttar Pradesh, India.
9. Invited Speaker at the 3rd International Conference on “Nutraceuticals and Chronic Diseases” from 14th to 16th September 2018, jointly organized by University of Tennessee, Health Science Center, USA and Cancer Research Institute, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University, Rishikesh (Dehradun), Uttarakhand, India.
10. Attended National Conference as a Session Manager on “Economic Reforms and their Impact on Indian Economy” on 22nd to 23rd February, 2018 organized by Department of Commerce of Commerce and Business Management in association with HRDC at Integral University, Lucknow, U.P India
11. Invited Speaker at International conference on “Cell Death in Cancer and Toxicology” on 20th -22nd February 2018 jointly organized by Rosewell Park Cancer Institute, New York, USA, and CSIR-IITR, Lucknow, U.P India
12. Worked as organizing committee member in “International Conference on Biotechnological Advancements in Free Radical Biology and Medicine” on 22nd-25th January, 2017 organized by department of Biosciences and Bioengineering, Integral University, Lucknow, U.P India
13. Worked as organizing committee member in “International Congress on Post-Harvest Technologies of Agricultural Produce for Sustainable Food and Nutritional Security” on 10th-12th November, 2016 organized by Integral Institute of Agricultural Science & Technology and Uttar Pradesh Council of Agricultural Research at Integral University, Lucknow, U.P. India.
14. Organized Hands-on workshop on “Impedance based REAL TIME CELLULAR ANALYSIS Platform for Proliferation & Cytotoxicity analysis” on 25th -27th October 2016, at Department of Bioengineering Integral University, Lucknow in collaboration with Premas life sciences.
15. Invited talk at the ‘International Conference on Biotechnological Advancements in Free Radical Biology and Medicine (ICBAFM)’ on November 14-16, 2015 at Integral University, Lucknow U.P. India.
16. Organising coordinator in “National Workshop on Nanomedicine” (NWN) March 2014, organised by Department of Biosciences, Integral University, Lucknow.
17. Invited Talk at the National conference on bioactive compounds and functional foods in health and disease management organized by National Institute of Food Technology Entrepreneurship and Management (NIFTEM), Haryana, on November 15-16, 2013.
18. Appointed as a panellist on the Poster Presentation Award Committee at the National conference on bioactive compounds and functional foods in health and disease management organized by National Institute of Food Technology Entrepreneurship and Management (NIFTEM), Haryana, on November 15-16, 2013.
19. Appointed as a Panellist on the Poster Presentation Award Committee at the National conference LUSCON-2013 (Lucknow Science Congress) organized by Deptt. of Biotechnology, BBAU (Central University, Lucknow).

20. Invited Talk at the National Symposium on Drug Discovery and Therapy, organized by Interdisciplinary Biotechnology Unit (IBU), Aligarh Muslim University, Aligarh. (2012).
21. Nominated for interaction in National Science Academy Anniversary Meet organised by INSA Young scientist awardees at BSIP Lucknow.

Papers presented/ Attended in Conferences/Symposia:

1. Poster presented at the National Conference on “Emerging Trends in Biological Sciences (ETBS)” from 27th to 28th January 2023 organized by Department of Biochemistry, Dr. Ram Manohar Lohia Avadh University, Ayodhya (UP), India.
2. Posters presented at “INDO-UZBEK MEET and International Conference on Trends & Innovation in Food Technology (TIFT-2022)” held on 24th -25th November 2022 organised by Department of Bioengineering, Integral University, Lucknow co-organized by Tashkent Chemical- Technological Institute, Tashkent, Uzbekistan.
3. Poster presented at “25th World Congress on Clinical Nutrition (WCCN)” on “Advances on Nutrition Research: Current Challenges and Future Prospects” held on 26th -27th November 2022 organised by ERA University, Lucknow.
4. Poster presented at “National Symposium on Impact of Climate Change on Emerging Plant Diseases” held on 28th -29th October 2022 organised by Division of Plant Pathology, Faculty of Horticulture, SKUAST-Kashmir and Indian Phytopathological Society (North Zone), India.
5. Paper presented at “First International Conference of Association of Clinical Biochemistry of India (ACBI), Chapter Pratapgarh on Newer Trends of Biochemistry in Ongoing Medical Sciences” held on 24th -25th September 2022 organised by Dr. Sone Lal Patel Autonomous State Medical College, Pratapgarh, India.
6. Posters presented at “First International Conference of Association of Clinical Biochemistry of India (ACBI), Chapter Pratapgarh on Newer Trends of Biochemistry in Ongoing Medical Sciences” held on 24th -25th September 2022 organised by Dr. Sone Lal Patel Autonomous State Medical College, Pratapgarh, India.
7. Posters Presented at “44th All India Cell Biology Conference and International Symposium on Molecular and Cellular Insights of Human Diseases” held on 2nd -3rd September 2022, jointly organized by Department of Biochemistry, University of Kashmir & Indian Society of Cell Biology.
8. Participated in the Symposium on Women Driving Science & Technology in India on 25th -26th August 2022 organized by Centre of BioMedical Research (CBMR), Lucknow.
9. Poster presented in First Research Meet on “Research Approaches to Biological Challenges in Context to Sustainable Development Goals” held on 22nd -23rd July 2022 organized by Department of Bioengineering, Integral University, Lucknow, UP, India.
10. Paper Presented at “International Conference on Advances in Cancer Biology, Prevention & Therapy (ICACBPT-2022)” on 24th -25th May, 2022, jointly organized by Faculty of Biotechnology and Faculty of Biosciences, Institute of Biosciences and Technology, Shri Ramswaroop Memorial University, Lucknow, UP, India.
11. Poster Presented at “International Conference on Advances in Cancer Biology, Prevention & Therapy (ICACBPT-2022)” on 24th -25th May, 2022, jointly organized

- by Faculty of Biotechnology and Faculty of Biosciences, Institute of Biosciences and Technology, Shri Ramswaroop Memorial University, Lucknow, UP, India.
12. Participated in a Virtual Seminar "BIOPHYSIKA-2022" organized by the Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, on 28 March, 2022.
 13. Participated in the Nature Conference on "Breaking Barriers for Gender Equity Through Research" on 9th-10th March 2022, hosted by Nature Conferences.
 14. Participated in the Webinar on "#BeCyber Safe" under the flagship of UP Higher Education Department on 2nd February 2022, organized by the Department of Computer Application, Integral University, Lucknow.
 15. Paper presented in National Seminar on "Recent Advances of Biochemistry and Biotechnology" (RABB-2021) organized by Lucknow University, India (DST-PURSE Sponsored) on March 20, 2021.
 16. Paper presented in "2nd International Conference of Indian Society of Personalized Medicine (ISPM)" organized by Department of Personalized and Molecular Medicine, Era University, LKO, India on 24th-25th March 2021.
 17. Participated in the International Webinar on "Assessment and Accreditation Process of NAAC" jointly organised by NAAC & Jamia Millia Islamia on 28 July 2020.
 18. Participated in the Webinar on "Combating with the Millennium Pandemic COVID-19" organised by American Society for Microbiology held on 2th -4th July 2020.
 19. Participated in the National Webinar on "Establishing a Sustainable Entrepreneurship Eco System" in Institutions of Higher Learning, organised by Department of Biotechnology Central University of Kashmir, Ministry of HRD, GoI, held on 24th June 2020.
 20. Participated in the Global Webinar on Jobs in the Next Five Years\ conducted on June 06th, 2020 by Integral University.
 21. Participated in the QUIZ on "World Environment Day" organised by IEEE GEC Student Branch held on 5th June 2020.
 22. Participated in an International Level Online Panel Discussion on "COVID-19 CRISIS: The Global Economy Reshaping" on 4th June 2020 organised by CMS, JAIN (Deemed-to-be University, Bengaluru).
 23. Participated in the Webinar held on 28-05-2020 on "Socio- Psychological impact of COVID-19 in Academics and its Management" organised by Faculty of Pharmacy, IU, Lucknow.
 24. Participated in the Webinar held on 22-05-2020 on 'Strengthening research capability remotely: Empowering Indian Research on COVID-19" organised by ELSEVIER and DBT, GoI.
 25. Participated in the Webinar held on 21-05-2020 on "COVID-19 Awareness, Preparedness Myths" organised by HRDC, IU, Lucknow.
 26. Participated in the national Webinar held on 9th May, on "Rise of Cyber Crime and Compliance to Cyber Laws" organised by Faculty of Law, IU, Lucknow.
 27. Participated in One day webinar on "*Enhancing Research Effectiveness using Scopus, Science direct and Mendeleey*" (Under the Aegis of PMMMMNMTT, MHRD, Govt. of India) held by faculty development centre Kurukshetra university, Kurukshetra in collaboration with ELSEVIER (Under the Aegis of PMMMMNMTT, MHRD, Govt. of India) on 01. 05.2020.
 28. Papers presented in "International Conference on Recent Advances in Engineering and Science" from January 11th -12th, 2020, organised by Aligarh Muslim University, UP, India.

29. Papers presented in “2nd National Biomedical Research Competition-2019” on 17th November, 2019 organized by PGIMER, Chandigarh, India.
30. Invited Speaker at the “National Conference on Interdisciplinary Advancements in Biochemistry” from March 28th -29th, 2019, organized by Dept. of Biochemistry, Dr. Rammanohar Lohia Avadh University, Ayodhya, Uttar Pradesh, India.
31. Participated in Review-Cum-Contact Programme on Certificate Course on Integrated Child Development organized by NIPCCD, Regional Center, Lucknow (Ministry of Women & Child Development, GoI in collaboration with Dept. of Bioengineering, IU from 14th-16th March 2019.
32. Participated in Seminar on “Latest Trends in Biotechnology for the Benefits of Uttar Pradesh” held on 12th March, 2019 organized by Council of Science and Technology, UP.
33. Poster Presented at “National Seminar on Recent Advances in Applied Biochemistry and Biotechnology (RAABB 2019)” on 9th March, 2019, organized by Dept. Of Biochemistry, Lucknow University, UP, India.
34. Attended “Popular Lecture Series on Biotechnology” sponsored by DBT, GoI, held on 19th January, 2019, at Institute of Bio-Sciences and Technology, Sri Ramswaroop Memorial University, Lucknow , UP.
35. Attended Abcam Seminar at CSIR- CDRI on “Optimization Techniques for WB, IHC, and ICC” on 4th December, 2018.
36. Participated in Seminar on “Role of Biotechnology for the Benefits for the People of Uttar Pradesh” held on 27th March, 2018 organized by Council of Science and Technology, UP.
37. Invited Lecture in International Conference on Cell Death in Cancer and Toxicology, Organized by CSIR-IITR from Feb 20-22, 2018
38. Papers presented in International Conference on Updates in Cancer Prevention and Research (ICUCPR-2017) on 14th-16thFebruary 2017, organized by Department of Biotechnology, Babasaheb Bhimrao Ambedkar University (BBAU), Lucknow, U.P. India.
39. Papers presented in “International Conference on Biotechnological Advancements in Free Radical Biology and Medicine” on 22nd-25thJanuary 2017, organized by department of Biosciences and Bioengineering, Integral University, Lucknow, U.P India.
40. Attended seminar on “Present Scenario & Future Prospectives of Research in Engineering and Sciences (ISPSFPRES-17) held on 21th January, 2017, at IU, Lko
41. Participated in “Entrepreneurship Workshop” jointly organized by Entrepreneurship Development Cell, IU and Entrepreneurship Cell, IIT, Kanpur.
42. Attended Abcam Seminar at CSIR- CDRI on “Optimization Techniques for WB, IHC, and ICC” on 25th November, 2016.
43. Papers presented in 3rd International Conference on “New Frontiers in Biotechnology: Science, Health & Medicine (GenoPro-2016)”, 23rd-24th September, 2016 organized by Invertis University, Bareilly, U.P., India.
44. Attended national seminar on “Re-thinking Empowerment: Gender and Development in India on 19th-20th September 2016, organized by Association of Indian Universities New Delhi & Department of Women Education Maulana Azad National Urdu University Hyderabad.
45. Attended national conference on “Intellectual Property Rights: A Significant Tool for Sustainable Agriculture” on 2nd and 3rd April 2016 organized by IPRMC, Integral University in collaboration with Geographical Indication, Intellectual Property

Rights and Organic Facilitation Cell Uttar Pradesh Council of Agricultural Research (UPCAR), Lucknow at Integral University, Lucknow.

46. Papers presented in “The XXXIX All India Cell Biology Conference on Cellular Organization And Dynamics” on December 6 - 8, 2015 organized by Rajiv Gandhi Center for Biotechnology (RGCB) and Indian Institute of Science Education and Research Thiruvananthapuram (IISER TVM) at Thiruvananthapuram, Kerala.
47. Papers presented in “International Conference on Biotechnological Advancements in Free Radical Biology and Medicine” on November 14-16, 2015 at Integral University, Lucknow U.P. India.
48. Papers presented in National Conference on “Biotechnology and Human Welfare: New Vistas” 21-22 March, 2015 organised by department of Biotechnology, VBS Purvanchal University, Jaunpur.
49. Papers presented in National Conference on “NanoSciences, NanoToxicology, and NanoInformatics”- Present and Future Prospective 14th-15th March, 2015 organised by department of Biosciences and Bioengineering, Integral University, Lucknow
50. Papers presented in National Conference on “Novel Tools and Treatment Approaches in Health Care System” 3rd March, 2015 organised by department of Pharmacy, Integral University, Lucknow.
51. Attended one day symposium on “Drug Discovery in India: Past, Present and Future” 01 January 2015 at CSIR- Central Drug Research Institute, Lucknow, U.P. India.
52. Research Paper presented in XXXVIII ALL INDIA CELL BIOLOGY CONFERENCE & International Symposium on “Cellular Response to Drugs” December 10-12, 2014 at CSIR- Central Drug Research Institute, Lucknow, U.P. India.
53. Papers presented in the National conference on ‘Current scenario in drug discovery and development’ 6th NIPER (RBL)-CSIR-CDRI symposium 2014 organized by CSIR-CDRI, Lucknow.
54. Attended 1st National level workshop on “Intellectual Property System: India today and tomorrow” organized by IPRMS, CCG&D, IU, Lko, in collaboration with IPOA, New Delhi held on 10th January, 2014.
55. Papers presented in the National conference on Association of Genetic Polymorphisms in STAT 3, STAT 5b and GWAS Identified PTPN22 Gene with Rheumatic Heart Disease.
56. Papers presented in the National conference on Current Trends in Drug Design Research (CTDDR) -2013 organized by CSIR-CDRI, Lucknow.
57. Papers presented in the National conference on Stress Seminar organized by Deptt. of Biochemistry, Lucknow University
58. Papers presented in the National conference LUSCON-2013 (Lucknow Science Congress) organized by Deptt. Of Biotechnology, BBAU (Central University, Lucknow).
59. Participated in National Level Workshop on “Fundamentals of Nanoscience and Biotechnology” organized by Dept. Of Nanobiotechnology, Life Science Foundation India, Karnataka in collaboration with Dept. Of Bioengineering, IU, Lko held on 28-30 January, 2013.
60. MEPHITIS meet presentation in the proceedings of the MEPHITIS project at New Delhi in April (2010).
61. Paper Presented in International Meeting on Molecular Chaperones and the Heat shock response at Cold Spring Harbour Laboratory, New York, U.S.A (2008)

62. Paper Presented in International Meeting on Southeastern Regional Yeast Meeting Gatlinburg, Tennessee, U.S.A, (2008).
63. Paper Presented in International Meeting on Molecular Chaperones and the Heat shock response at Cold Spring Harbour Laboratory, New York, U.S.A (2006)
64. Poster presentation in the Graduate Research Day at Medical College of Georgia, Augusta, Georgia, U.S.A (2006)
65. Poster Presentation in International Conference on Advances in Cancer Research. IACR, Regional Cancer Centre, Thiruvananthapuram, India. (2003).
66. Paper Presented in Meeting at the II International Workshop on Lung Cancer, PGIMER, Chandigarh. (2002).
67. International Conference on Emerging Trends In Cancer Prevention, Jawaharlal Nehru University, New Delhi, India. (2002).

FDPs/ Workshop Attended:

1. Invited Lecture in the Short-Term Course on “Research Methodology and Publication Ethics” held from 22 to 26 April, 2024 on the topic Research and Publication Ethics: Guidelines for responsible conduct of research, Policies and Best Practices on 24/04/2024, Association of Indian Universities (AIU), Integral University, Lucknow (IU), Academic and Administrative Development Centre (AIU-IU-AADC) & Department of Biosciences, Integral University, Lucknow, India.
2. Participated in Five days Faculty Development Programme (FDP) on Effective Teaching through Modern Technologies from 4 to 8 March 2024, Integral University, Lucknow (IU), Academic and Administrative Development Centre (AIU-IU-AADC) and the Association of Indian Universities, India.
3. Participated in Five days Online Faculty Development Programme (FDP) on Current Trends in Biotechnology and Biomedical Sciences from 25th -29th July, 2022 organised by Institute of Biosciences and Technology, Shri Ramswaroop Memorial University, Lucknow, India.
4. Participated in 2 weeks International Faculty / Knowledge Development Programme themed Accreditation Awareness, Planning and Execution (APEX) on "Research, Innovation and Extensions" on 16th - 29th of April 2022, organized by Holy Cross College, Agartala and Special Minds.
5. Participated in One-week International Faculty / Knowledge Development Programme on “Scholarly Writing and Publishing Research Papers” on 9th - 16th March 2022 organised by Faculty of Commerce and Management in association with Faculty of Doctoral Studies, Integral university, Lucknow.
6. Participated in One-Day workshop on “MOOCs and SWAYAM NPTEL Awareness” on 29th January, 2022 organised by SWAYAM NPTEL Local Chapter of Integral university, Lucknow in collaboration with the Dept. of Electronics and Communication Engineering, Faculty of Engineering, Integral university, Lucknow.
7. Participated as a Faculty Coordinator for the "MANAV Scientific Reading and Comprehension Self-Assessment Module (for students)”, on September to October 2021, organized by Project MANAV– The Human Atlas Initiative.
8. Participated in one week FDP (online) on Moodle “ Learning management system” from 16th-20th May, 2020 organised by Dept. of CA in association with Spoken Tutorial Project, IIT Bombay- PMMMMNMTT, under the aegis of HRDC, IU, Lucknow.
9. Attended “One-week Professional Development Programme (FDP) on Research Methodology & Quantitative Techniques” from on 06th -11th July held by Department

of Commerce & Business Management, Faculty of Commerce & Management In association with Internal Quality Assurance Cell (IQAC), Integral University, Lucknow.

10. Attended “Training Program on Academic Leadership” from 8th to 11th April 2019, under the scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), MHRD, Govt. of India, held at Integral University, Lucknow.
11. Attended “Public Finance Management System (PFMS) Training Program-EAT Module” on 21st December, 2018 conducted at Integral University, Lucknow.
12. Attended “Regional Workshop on Research Based Pedagogical Tools”, from 23rd to 25th October 2018, held in HRDC, IU, Lucknow, funded by DST, GoI and organized by IISER Pune (supported by MHRD, GoI) and HRDC, IU, Lucknow
13. Attended “Allergy Update: Conference cum Workshop-2018” under the aegis of Indian College of allergy, Asthma and Applied Immunology (North Zone) on 31st October, 2018, organized by Integral Institute of Medical Sciences and Research, Integral University, Lucknow.
14. Attended “Training Program on Academic Leadership” from 07th September to 13th September 2018 under the scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), MHRD, Govt. of India at Integral University, Lucknow.
15. Attended “Training Program on Academic Leadership” from 14th August to 18th August 2018 under the scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), MHRD, Govt. of India at Integral University, Lucknow.
16. Participated in One Week AICTE recognized Short Term Course on Climate Change and Disaster Management through ICT conducted by Rural Development Department from 6th -11th November 2017 at Integral University Lucknow.
17. Attended “Short Term Course for Training Program on Academic Leadership” from 17th March to 23rd March, 2017 under the scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), MHRD, Govt. of India at Integral University, Lucknow.
18. Attended “Short Term Course on Computer Applications” from 23rd February to 29th February 2016 under the scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), MHRD, Govt. of India at Integral University, Lucknow.
19. Attended seven day “FDP on MATLAB” from 1st to 7th February 2016, Organized by Deptt. of Electronics & Communication Integral University, Lucknow.
20. Attended training programme on “Organic Farming for Agriculture Sustainability” on 27th -28th August 2015, organized by GI, IPRS and Organic Facilitation cell at UPCAR lucknow.
21. Attended one day FDP on “Perspective of Modern teaching techniques& Uses of Case Studies through experimental learning” on 22nd August 2015, at Deptt. Of Business Management, Integral University, Lucknow
22. Attended national workshop on ‘Arm Controlled Robotics’ 11th to 13th February, 2015 organised by Microbotic Technologies in association with Integral University, Lucknow.
23. Attended national workshop on “Data Analysis by SPSS” 25th February, 2015 organised by Department of Mathematics, Integral University, Lucknow.

Teaching Experience:

1. Experience of teaching Cell and Molecular Biology at postgraduate level in capacity of Junior Demonstrator in Department of Experimental Medicine and Biotechnology, PGIMER, Chandigarh, India.
2. Experience of teaching Animal Biotechnology, Molecular Genetics, Immunology, Cell and Molecular Biology at Undergraduate and post graduate level at BSBE, Integral University, Lucknow
3. Instrumental in generating consensus for introducing review article publication in an SCI journal for M. Tech (Biotechnology) students as part of their training.

Memberships of Scientific Societies:

1. Indian Society of Cell Biology (ISCB).
2. Indian Association of Cancer Research.
3. Indian Science Congress
4. Biotech Research Society, India

Member of Review committee

1. Cell Death and Disease
2. Scientific Reports
3. Biochemical Pharmacology
4. Food Research International, Springer
5. PLoS One
6. CNS & Neurological Disorders-Drug Targets
7. Biotechnology and Applied Biochemistry
8. Cancer Medicine

Collaborations:

1. Dr. MLB Bhatt, Professor, King George's Medical University, Lucknow, UP, India.
2. Dr. Amitabh Chakrabarti, Defence Institute of Physiology and Allied Sciences (DIPAS), DRDO, Ministry of Defence, GoI.
3. Dr. Saman Habib, Senior Scientist, Molecular & Structural Biology, CSIR-CDRI, Lucknow, UP, India.
4. Dr. Sanjay Yadav, Head, Department of Biochemistry, AIIMS, Raebareli, UP, India.
5. Dr. Syed Musthapa Meeran, Senior Scientist, Division of Biochemistry, CSIR-CFTRI, Mysore-570020, Karnataka, India.
6. Dr. Mahesh Pal, Principal Scientist, Phytochemistry Research Group, CSIR-NBRI, Lucknow, UP, India.
7. Dr. Aamir Nazir, Senior, Scientist, Functional Genomics and Molecular Toxicology' in the Division of Toxicology, CSIR-CDRI, Lucknow, UP, India.

Additional trainings:

1. Undergraduate training under the supervision of Dr. D. N. Rao, Department of Biochemistry, All India Institute of Medical Sciences, New Delhi, India.
2. Postgraduate Training under the supervision of Dr. Rizwan H. Khan, Interdisciplinary Biotechnology Unit, AMU, Aligarh.

Summary of current research activities:

My research studies are focused towards understanding the Molecular mechanisms of chaperones, their activities and protein quality control. It is well known that most of the

neurodegenerative disorders arise due to an underlying impairment of the protein quality control (PQC) pathways that have evolved to protect cells from the deleterious effects of misfolded proteins. Protein misfolding and aggregation have been related to several human disorders, generally termed protein aggregation diseases. In cancer, so far, such mechanisms are largely unknown. Therefore, we hypothesise that p53 aggregation may participate in some cancers similarly to the situation in Alzheimer's and Parkinson's disease. To handle a build-up of abnormally folded proteins, cells employ a sophisticated protein proof reading and elimination mechanism. The first line of defense is provided by the molecular chaperones which facilitate refolding or degradation of misfolded proteins. The molecular switches that trigger the chaperones to act under stressful conditions and the impairment of such commands during disease processes are yet to be deciphered. Understanding the protein quality control pathways would not only give us an insight into the basic cellular mechanisms but also help in identifying novel genetic targets of the disease processes thereby leading to the development of new treatment strategies to a diverse set of diseases. To this end, we are utilizing the powerful genetics of baker's yeast *Saccharomyces cerevisiae*, which has long been recognized as a model system for understanding the fundamental cellular functions and the development of disease processes in human beings. This model system can be further used to elucidate mechanisms influencing stress response in cells. Thus, taking advantage of the recent reverse genetics technologies along with the well-deciphered genetic make-up of yeast and cell lines, our objective is to identify novel modulators of protein quality control pathways in neurodegenerative diseases and cancer specifically with respect to the autophagy pathway.

Participation in other University Activities:

I have been energetically involved in other activities as a Chairperson, Coordinator or member of different Committees at the University as well as departmental level.

Institutional Biosafety Committee	Member
Research Committee	Member
Disciplinary Committee	Assistant Proctor
Departmental Quality Assurance Committee (DQAC)	Secretary
Coordinator (post-graduate courses)	M.Tech Courses (Bioengineering) M.Sc. Program (Medical)
NAAC Criteria-III	Incharge
APRC	Member
Co-Curricular Activities:	
FIESTA Debating Society	Literary Secretary
Technical Poster/Paper Presentation	Convener
School Outreach	Resource Person

I have contributed to introduction of new teaching methodologies and up gradation of course content by organising journal clubs and seminars and resorting to new technologies for instruction using animations, hands on workshops and traditional model-based approaches. As a member of the Double Helix Society, I was instrumental

in introducing the Group Discussion sessions for enhancing personality of pupils, Preparatory- GATE organisation was also a part of the activities of the Double Helix Society. I have actively helped in organisation of the **DST-STUTI sponsored workshop, INSPIRE CAMP, International and National conferences in the Department.** I am also actively involved in the technical, literary and cultural society of the University. Apart from that I also offer mentoring services to **GBIOFIN**, a Biotech services organisation for converging ideas and innovations in Biotechnology.

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