

# Md. Imtaiyaz Hassan, Ph.D., FRSB, FRSC

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Publications: 610

Citations: 21,216

H-Index: 71

I<sub>10</sub> Index: 404

## SUMMARY

Accomplished structural biologist with over 17 years of experience in teaching and research, specializing in computational biology, molecular and cellular biochemistry, and drug discovery. Demonstrated excellence in scientific research, mentorship, and interdisciplinary collaboration, with a strong commitment to driving innovation in therapeutic development.

## EXPERIENCE

### Professor

02/2023 - till date 📍 Jamia Millia Islamia, New Delhi

### Associate Professor

02/2020 - 02/2023 📍 Jamia Millia Islamia, New Delhi

### Assistant Professor

11/2009 - 02/2020 📍 Jamia Millia Islamia, New Delhi

### Visiting Scientist

05/2011- 08/2011 📍 Saint Louis University, Missouri, USA

### Young Scientist

02/2008- 11/2009 📍 Jamia Millia Islamia, New Delhi

## EDUCATION

PhD in Structural Biology (Gold Medal)

All India Institute of Medical Sciences

01/2004 - 10/2007 📍 New Delhi, India

M.Sc. in Biotechnology (Gold Medal)

Aligarh Muslim University

06/2001 - 07/2003 📍 Aligarh, India

B.Sc. in Chemistry

Aligarh Muslim University

06/1998 - 06/2001 📍 Aligarh, India

## AWARD AND HONORS

- **2023** – Selected among the **top 2% of scientists worldwide** (last 5 years).
- **2022** – Awarded the **Prof. Rita Mulherkar Lecture Award**.
- **2019** – Elected **Fellow of the Royal Society of Chemistry (UK)**.
- **2019** – Elected **Fellow of the Royal Society of Biology (UK)**.
- **2019** – Received **Best Oral Presentation Award** at the ACPMS, Seoul, Korea.
- **2018** – Honored as **Outstanding Researcher in Biophysics** by VIHA 2018.
- **2018** – Ranked among the **Top 10 Most Outstanding Researchers** in Biochemistry, Genetics, and Molecular Biology by Career360.
- **2017** – Received **ICMR International Fellowship** for Indian Biomedical Scientists.

## KEY ACHIEVEMENTS

### Published Scientist

Authored over **600 peer-reviewed** scientific articles in prestigious journals, advancing the field of drug discovery.

### Grant Acquisition

Played a lead role in securing and executing over **22 research projects** on drug discovery targeting cancer and neurodegenerative diseases.

### Mentorship Excellence

Successfully trained and mentored a dynamic team of researchers, including **28 Ph.D. awardees**, 10 postdoctoral fellows, and supervised over 250 M.Sc. dissertations with academic excellence and innovation.

### Method development

Innovative bioinformatics tools and software solutions are being developed to streamline and accelerate the drug discovery process, contributing significantly to computational approaches in therapeutic research.

## SKILLS

Drug Design and Discovery

Protein Folding Kinetics

Medicinal Chemistry

Molecular Cell Biology

Neurodegenerative Diseases

Protein Kinase Inhibitors

Cancer Therapeutics

Structural and Functional Genomics

- **2016** – Elected **Member of the National Academy of Sciences, India**, Allahabad.
- **2011** – Awarded **Indo-US Fellowship** by IUCSSF, DST India.
- **2009** – Awarded **Ph.D. Gold Medal** from the All India Institute of Medical Sciences (AIIMS).
- **2007** – Received the **DST Young Scientist Award** from the Department of Science and Technology, India.
- **2003** – Received **University Gold Medal** for securing the highest marks in M.Sc.
- **2003** – Awarded the **Obaid Bin Sayeed Gold Medal** in M.Sc. Biotechnology.

## COURSES

### Structural Biology

Demonstrated excellence in teaching and curriculum development in protein structural biology, X-ray crystallography, structural genomics, protein folding, and dynamics, integrating theoretical & practical applications.

### Bioinformatics

Specialist in drug design and discovery, with advanced proficiency in molecular docking, molecular dynamics simulations, chemoinformatics, comparative genomics, and computational method development.

### Advanced methods in drug discovery

Possesses extensive expertise in spectroscopic techniques, molecular and cell biology, enzymology, chromatography, hydrodynamic methods, and advanced imaging techniques, with a strong focus on mechanistic studies and biomolecular characterization.

## Professional Affiliations and Leadership

- ▣ Indian Biophysical Society - **Vice-President**
- ▣ Protein Society - **General Secretary**
- ▣ Bioinformatics and Drug Design Society - **Joint Secretary**
- ▣ Indian Academy of Biomedical Sciences - **Life Member**
- ▣ Indian Crystallography Association - **Life Member**
- ▣ Indian Science Congress - **Life Member**
- ▣ Society for Biological Chemists, India - **Life Member**
- ▣ Indian Society of Cell Biology - **Life Member**
- ▣ The Biotech Research Society, India - **Life Member**
- ▣ Proteomics Society India - **Life Member**
- ▣ National Academy of Biological Sciences - **Life Member**
- ▣ American Chemical Society - **Member**

## Editorial Roles

- ▣ Journal of Biomolecular Structure and Dynamics - **Associate Editor**
- ▣ Journal of Protein and Proteomics - **Associate Editor**
- ▣ Oxidative Medicine and Cellular Longevity - **Associate Editor**
- ▣ Journal of Alzheimer's Disease - **Associate Editor**
- ▣ F1000Research - **Senior Advisor**, Cell & Molecular Biology Gateway
- ▣ Scientific Reports - **Editor**
- ▣ PLOS ONE - **Academic Editor**
- ▣ Brain Research - **Guest Editor**
- ▣ Frontiers in Molecular Biosciences - **Associate Editor**
- ▣ Frontiers in Immunology - **Guest Editor**
- ▣ Frontiers in Oncology - **Guest Editor**
- ▣ Molecules - **Guest Editor**
- ▣ Briefings in Functional Genomics - **Guest Editor**
- ▣ Current Topics in Medicinal Chemistry - **Guest Editor**
- ▣ Frontiers in Biosciences - **Guest Editor**
- ▣ Journal of Natural Science, Biology and Medicine - **Editor**

## RESEARCH GRANTS

- ❖ Folding and Stability of Naturally Truncated Photosynthetic Pigment, C-Phycocyanin from *Cyanobacteria Phormidium tenue* (2011-2014)  
Funding Agency: DST, Role: PI, Amount: ₹39.40 Lakhs
- ❖ The Critical Role of Five N-terminal Residues in the Folding and Stability of Yeast Iso-1 Cytochrome c (2010-2013)  
Funding Agency: DST, Role: CoPI, Amount: ₹49.50 Lakhs
- ❖ Structural and Biophysical Characterization of Cyt-c: A Component of Mitochondrial Respiration (2008-2011)  
Funding Agency: DST, Role: PI, Amount: ₹13.75 Lakhs
- ❖ Compilation of Useful Information for Indian Diseases Through an Online Database Management (2012-2015)  
Funding Agency: UGC, Role: PI, Amount: ₹15.37 Lakhs
- ❖ Structural and Functional Assignment to Hypothetical Proteins from Common Indian Pathogens (2013-2016)  
Funding Agency: ICMR, Role: PI, Amount: ₹29.60 Lakhs
- ❖ Mechanism of Survival of Ethanol-Producing Organisms: Role of Compatible Osmolytes (2013-2016)  
Funding Agency: CSIR, Role: CoPI, Amount: ₹24.5 Lakhs
- ❖ Design and Synthesis of Selective Inhibitors Against Human Carbonic Anhydrase VA (2016-2019)  
Funding Agency: CSIR, Role: PI, Amount: ₹24.60 Lakhs
- ❖ In Silico and In Vitro Approaches to Counter Urea's Effects Using Kidney Osmolytes (2013-2016)  
Funding Agency: ICMR, Role: PI, Amount: ₹26.60 Lakhs
- ❖ Identification of High-Affinity Selective Inhibitor of CAMK-IV (2017-2020)  
Funding Agency: ICMR, Role: PI, Amount: ₹52.70 Lakhs
- ❖ Identification of MARK4 Inhibitors from *Bacopa monnieri* for Alzheimer's Therapy (2020-2022)  
Funding Agency: NMPB, Role: PI, Amount: ₹22.20 Lakhs
- ❖ Elucidation of Neurodegenerative Tauopathies via MARK4 Inhibition (2021-2024)  
Funding Agency: ICMR, Role: CoPI, Amount: ₹36.5 Lakhs
- ❖ Identification of High-Affinity Selective Inhibitor of CAMK-IV (2017-2020)  
Funding Agency: ICMR, Role: PI, Amount: ₹52.70 Lakhs
- ❖ Structure-Based Design of Sphingosine Kinase 1 Inhibitors for Pulmonary Fibrosis (2020-2023)  
Funding Agency: ICMR, Role: PI, Amount: ₹36.45 Lakhs
- ❖ Systems Regulatory Networks of Autophagy Proteins in *Leishmania* for Drug Design (2021-2024)  
Funding Agency: ICMR, Role: CoPI, Amount: ₹34.4 Lakhs
- ❖ Selective Pharmacological Inhibition of RfaH in *Klebsiella pneumoniae* (2021-2024)  
Funding Agency: ICMR, Role: PI, Amount: ₹64.78 Lakhs
- ❖ Targeting Alzheimer's via Unani Plant Extracts and Kinase Modulation (2021-2024)  
Funding Agency: CCRUM, Role: PI, Amount: ₹49.9 Lakhs
- ❖ Targeting Non-Genomic Androgen Signaling in Prostate Cancer via GPR56 (2021-2024)  
Funding Agency: SERB, Role: CoPI, Amount: ₹43.2 Lakhs
- ❖ Development of Pim-1 Kinase Inhibitors for Prostate Cancer Therapy (2021-2024)  
Funding Agency: CSIR, Role: PI, Amount: ₹41.7 Lakhs
- ❖ Dual Targeting of Prostate Cancer and COVID-19 via Enzyme Modulators (2022-2024)  
Funding Agency: SERB, Role: PI, Amount: ₹19.7 Lakhs
- ❖ Unani Formulation-Based Strategy to Combat Alzheimer's via Mitochondrial Mechanisms (2023-2026)  
Funding Agency: CCRUM, Role: CoPI, Amount: ₹43.7 Lakhs

## INVITED TALKS

1. National Symposium on Biomolecular Drug Targets, Aligarh Muslim University, Aligarh, March 7–9, 2011.
2. Annual Meeting of the Indian Biophysical Society, University of Madras, Chennai, January 19–21, 2012.
3. 5th International Symposium on Recent Trends in Macromolecular Structure and Function (ISRTMSF-2012), University of Madras, Chennai, January 23–25, 2012.
4. National Conference on Biology and Bioinformatics of Economically Important Plants and Microbes (BBCon2012), University of North Bengal, Siliguri, February 17–19, 2012.
5. National Symposium on Biomolecular Interaction and Drug Discovery & Workshop on Current Trends in Bioinformatics, Aligarh Muslim University, Aligarh, March 21–22, 2012.
6. 81st Annual Meeting of the Society of Biological Chemists (India), Kolkata, November 8–11, 2012.
7. International Conference on Emerging Trends in Biomarker Research – Prospects & Challenges, Jawaharlal Nehru Institute of Advanced Studies, Secunderabad, September 13–14, 2013.
8. National Seminar on Plant Biotechnology: Challenges and Opportunities in the 21st Century, Jamia Hamdard, New Delhi, March 3–4, 2014.
9. 9th International Symposium on Fuels and Lubricants, Indian Oil Corporation Limited, Faridabad, April 15–17, 2014.
10. Bioworld 2014 – Protein Structure and Function, Indian Institute of Technology Delhi, New Delhi.
11. 6th World Congress on Biotechnology, New Delhi, October 5–7, 2015.
12. Recent Developments in Medical Biotechnology and Structure-Based Drug Designing (RDMBSBDD-2015), Indian Institute of Technology Guwahati, December 6–7, 2015.
13. Workshop on Bioinformatics in Drug Discovery, All India Institute of Medical Sciences, New Delhi, February 2–3, 2016.
14. Annual Meeting of Indian Biophysical Society – Molecules in Living Cells: Basis of Function, Indian Institute of Science, Bangalore, February 8–10, 2016.
15. 1st International Conference on Human Implications of Biotechnology, Central University of South Bihar, Patna, February 12–14, 2016.
16. International Conference on Emerging Trends in Biomedical Sciences (ETBS-2016), Aligarh Muslim University, Aligarh, March 6–8, 2016.
17. National Symposium cum Bioinformatics Workshop on Macromolecular Structure, Function, Interaction and Prediction, Aligarh Muslim University, Aligarh, March 29–30, 2016.
18. DeMon2016 Workshop, Henan University, Zhengzhou, China, May 4–7, 2016.
19. International Conference on Structure and Dynamics of Biomolecules, Deen Dayal Upadhyaya University, Gorakhpur, January 27–28, 2017.
20. 9th National Symposium cum Workshop – SBCADD'2017, Alagappa University, Karaikudi, February 14–17, 2017.
21. National Seminar on Biotechnology: Challenges and Opportunities, Jamia Hamdard, New Delhi, March 18–19, 2017.
22. National Symposium cum Bioinformatics Workshop on Current Trends in Proteomics and Bioinformatics, Aligarh Muslim University, Aligarh, March 16–17, 2017.
23. 4th International Conference on Emerging Trends in Protein Science & Proteomics, Invertis University, Bareilly, 2017.
24. 10th National Symposium cum Workshop on Recent Trends in SBCADD'2018, Alagappa University, Karaikudi, February 20–23, 2018.
25. 3rd International Conference on Nutraceuticals and Chronic Diseases, Cancer Research Institute & Himalayan Institute of Medical Sciences, Swami Rama Himalayan University, Dehradun, September 14–16, 2018.
26. International Conference on Bioinformatics, Jawaharlal Nehru University, New Delhi, September 26–28, 2018.
27. International Congress of Diabetes and Metabolism, Korean Diabetes Association, Grand Hilton Seoul, Seoul, October 11–13, 2018.
28. 11th National Symposium cum Workshop on Recent Trends in Structural Bioinformatics and Computer-Aided Drug Design Alagappa University, Karaikudi, February 12–15, 2019.
29. 2nd Asia-Pacific CardioMetabolic Syndrome Congress (APCMS 2019), Grand Hilton Hotel, Seoul, February 22–23, 2019.
30. Recent Advancements in Biochemical Engineering and Biotechnology, Engineering, IIT (BHU), Varanasi, March 15–16, 2019.
31. National Conference on Emerging Trends in Disease Model Systems, National Centre for Cell Science, Pune, March 25–26, 2019.
32. National Seminar on Biotechnology: Current Status and Future Prospects, Jamia Hamdard, New Delhi, March 26–27, 2019.
33. 7th Biennial Congress of the Asian-Pacific Hepato-Pancreato-Biliary Association (A-PHPBA 2019), Seoul, September 4–7, 2019.
34. 8th International Congress on Lipid & Atherosclerosis 2019 & 8th Conference of the Korean Society of Lipid & Atherosclerosis, Conrad Hotel, Seoul, September 5–7, 2019.
35. National Conference on Insect-Plant Biology in the 21st Century, Deshbandhu College, Delhi, November 4–5, 2019.
36. Seminar on Drug Design and Discovery, Department of Biotechnology, PGDAV College, Muzaffarnagar, November 8, 2019.
37. Recent Advances and Current Trends in Biological Sciences, M.S. College, Motihari, November 11–12, 2019.
38. National Conference on Translational Research: Current and Future Perspectives, Gautam Buddha University, Greater Noida, November 16–17, 2019.
39. International Conference on Contemporary Islamic Thought and Societal Reforms through Education, Constitution Club of India, New Delhi, February 1–2, 2020.
40. International Conference on Corona Viral Genomics, Bengaluru Genomics Center & Sarvasumana Association, June 7–10, 2020.
41. The World After – From Things to Life (Virtual Conference), Dassault Systèmes, USA, 2020.

42. Coronavirus Pandemic and Its Impact on Human Life, Department of Life Sciences, Central University of Karnataka, Kalaburagi, 2020.
43. 2nd World Conference on Advances in COVID-19, Bengaluru Genomics Center & HAPPI-IPPA (Bolivia), August 28–30, 2020.
44. Refresher Course in Life Sciences, UGC-HRDC, MANUU, September 19, 2020.
45. International Seminar on COVID-19 Challenges Before Mankind: Victory Beyond Defeat, NSCB Government Girls PG College, Lucknow, October 10, 2020.
46. Bio-Illumination: Talk 9, Department of Biological Sciences, Aliah University, Kolkata, October 31, 2020.
47. International Symposium on Bioinformatics and Artificial Intelligence in COVID-19 Era and Beyond, Amity Institute of Biotechnology, Amity University Noida, November 24–25, 2020.
48. One-Week Workshop on Research Methodology, UGC-HRDC, Jamia Millia Islamia, December 22, 2020.
49. International Bioinformatics E-Workshop, Department of Biotechnology, Delhi Technological University, December 18, 2020.
50. Seminar on Structure-Based Drug Design and Discovery, Government Degree College, Baramulla, 2020.
51. Online Faculty Induction Programme: Interdisciplinary Research, UGC-HRDC, Jamia Millia Islamia, February 25, 2021.
52. DBT-Sponsored National Workshop on Molecular Docking (Star College Scheme), Delhi University, March 31, 2021.
53. Workshop on Structure-Based Drug Designing and Discovery, Delhi University, March 22, 2021.
54. National Webinar on Genomics and Proteomics, Department of Biotechnology, Kalinga University, Raipur, August 28, 2021.
55. Seminar on Therapeutic Targeting of Human Kinases, Department of Biology, UAE University, Al-Ain, October 14, 2021.
56. Design and Development of High-Affinity Kinase Inhibitors: From Theory to Therapy, Tripura University, October 30, 2021.
57. National Workshop on Advanced Research Techniques in Neuroscience, Jamia Hamdard, New Delhi, December 14, 2021.
58. Faculty Development Activity: Methods for Data Analysis and Paper Writing Skills, Royal Commission for Jubail & Yanbu, KSA, December 14, 2021.
59. Workshop on Computational Biology and Network Pharmacology: New Horizon in Drug Discovery, Punjabi University, Patiala, December 22, 2021.
60. Online Lecture on Interdisciplinary and Collaborative Research Projects, UGC-HRDC, Jamia Millia Islamia, December 27, 2021.
61. Online Lecture on Interdisciplinary Research, UGC-HRDC, Jamia Millia Islamia, March 4, 2022.
62. Synergistic Training Program (STUTI), Jamia Hamdard, New Delhi, March 10, 2022.
63. Annual Fest SYNAPSE 2022, Synergia Life Science Society, Deshbandhu College (University of Delhi), 2022.
64. 1st International Conference on Genomics of Animal Gut Microbes, NIGAB & NARC, Islamabad, June 22, 2022.
65. 9th Online Faculty Induction Programme, HRDC, Jamia Millia Islamia, June 25, 2022.
66. Biotech Innovation Ignition School-12 (BIIS-12), SRISTI-BIRAC, Ahmedabad, June 30, 2022.
67. 3rd Online 2-Week Refresher Course in Basic Sciences, HRDC, Jamia Millia Islamia, August 2–18, 2022.
68. Webinar on Structure-Based Drug Design and Development, IIS Institute of Advanced Studies & Research, Kolkata, August 27, 2022.
69. Computational Methods in Advancing Agricultural Research, NIGAB & NARC, Islamabad, October 11, 2022.
70. 11th Online Faculty Induction Programme, HRDC, Jamia Millia Islamia, November 1–29, 2022.
71. 2nd International Conference cum Workshop on Recent Trends in Structural Bioinformatics and Computer-Aided Drug Design (ICSBCADD 2022), Alagappa University, Karaikudi, November 21–25, 2022.
72. Hands-On Training under DST-STUTI Program, Department of Toxicology, School of Chemical & Life Sciences, Jamia Millia Islamia, December 20–26, 2022.
73. Workshop on Data Science in Drug Discovery, Bioinformatics Facility, NCCS Pune, February 5, 2023.
74. International Conference on Unani Medicine (Unani Day 2023), CCRUM, Ministry of AYUSH, Government of India, Feb10–11, 2023.
75. 5-Day Faculty Development Programme: Innovation in Health Sciences, FAHS, SGT University, Gurugram, February 13–17, 2023.
76. Talk on Research Innovation, School of Life Sciences, Manipur University, Feb 11, 2023.
77. India & G20 Summit: Setting the Agenda for an Inclusive Future, Institute of Objective Studies, New Delhi, August 19, 2023.
78. International Conference on Structural Biology and Drug Discovery (ICSBDD 2023), Gautam Buddha University, Greater Noida, October 11–12, 2023.
79. Protein Modelling: A Rational Tool for Drug Discovery and Development (Online Workshop), DBT-Bioinformatics Centre, Punjabi University, Patiala, October 31, 2023.
80. 5-Day FDP on Advances and Innovations in Biotechnology, Centre for Bio-Separation and Technology, VIT Vellore, November 27–December 1, 2023.
81. Global Bio-India 2023: Transforming Lives – Biosciences to Bioeconomy, Bharat Mandapam, Pragati Maidan, New Delhi, Dec 4–6, 2023.
82. Structural Dynamics of Protein (Faculty Induction Program), Department of Veterinary Biochemistry, SKUAST-Kashmir, Srinagar, December 12, 2023.
83. Current Trends in Research and Research Paradigms, 2-Week Refresher Course in Teacher Education, HRDC, Jamia Millia Islamia, January 9, 2024.
84. RSG-India's CBIInd 2023–24 Symposium, Department of Biophysics, University of Delhi South Campus, New Delhi, January 10, 2024.
85. International Conference on Microbial Technologies for Sustainable Bioeconomies, Central University of Rajasthan, Jan 31, 2024.
86. Genomics, Metagenomics & Proteomics, School of Allied Sciences, Dev Bhoomi Uttarakhand University, February 3, 2024.
87. National Workshop on Capacity Building of AYUSH Professionals, Centre of Excellence in Unani Medicine, Jamia Hamdard, February 23–25, 2024.
88. KARYASHALA: Advanced Hands-On

Workshop on Recombinant Protein Production, Amity University Rajasthan, March 11–17, 2024.

89. BIC & NNP Workshop on Big Data Analysis and Machine Learning, NIPGR, New Delhi, March 13–15, 2024.
90. SNCI-STUTI Workshop on Translational Neuroscience: Bridging Bench to Bedside, SNCI, Jamia Hamdard, April 18, 2024.
91. Online One-Month Faculty Induction Programme, Malaviya Mission Teacher Training Centre, Jamia Millia Islamia, February 1–March 1, 2024.
92. Online 2-Week Refresher Course in Basic Science (Interdisciplinary), Malaviya Mission Teacher Training Centre, Jamia Millia Islamia, November 1, 2024.
93. Whole Exome Sequencing in Clinical Settings (Hands-On Workshop), CMR-NICPR, September 24, 2024.
94. Short-Term Course on Bioinformatics: Basic to Advanced, Bhaskaracharya College of Applied Sciences, Delhi University, October 1, 2024.
95. NEP Orientation & Sensitization Programme (Online Training), Malaviya Mission Teacher Training Centre, Jamia Millia Islamia, September 23, 2024.
96. Advanced Drug Designing & Computational Biology Workshop, Department of Chemistry, Jamia Millia Islamia, Sep 26, 2024.
97. Breakthroughs in Drug Design: The Synergy of Machine Learning and HPC, Prescience In silico & School of Physical Sciences (JNU), November 29–30, 2024.
98. Workshop on Alternative Models in Toxicological Research, Department of Toxicology, School of Chemical & Life Sciences, Jamia Hamdard, December 9–11, 2024.
99. 4th Asian Congress for Alternatives to Animal Experiments & 7th Annual Conference of SAAE-India, Jamia Hamdard, New Delhi, December 12–14, 2024.
100. Workshop on Computational Biology Methods in Toxicity Testing, Alternatives to Animal Experiments, Jamia Hamdard, New Delhi, December 16, 2024.
101. Residential One-Month Faculty Induction Programme, Malaviya Mission Teacher Training Centre, Jamia Millia Islamia, Jan 2, 2025.
102. Translational Neurochemistry: Bridging Basic Science and Clinical Application” organised by Society for Neurochemistry India (SNCI) Delhi Local Chapter at Jamia Hamdard, New Delhi, scheduled on April 7-15, 2025
103. Structure-based Drug Design and Discovery: Methods and Protocols at JIS Institute of Advanced Studies & Research (JISIASR), JIS University, Kolkata on February 6, 2025
104. The DBT-sponsored 1st National Conference on “Emerging Trends in Bioscience Research” [ETBR-2025] on the 5th and 6th of February 2025 was organised by the Department of Biological Sciences, Aliah University, Kolkata.
105. 65th AMI Annual International Conference on "Perspectives of Microbes for Human Welfare," scheduled for November 14–17, 2024, organised by Guru Jambheshwar University of Science & Technology, Hisar.
106. The Department of Chemistry, Jamia Millia Islamia, organized the International Conference on BIOMIMICRY: Nature's perfect innovation system to design a sustainable future on 6 February 2025.
107. 5th International Global Cancer Consortium conference organized by Amity University NOIDA on 29th January, 2025.
108. Mentorship Webinar on How Interdisciplinary thinking revolutionised the academic research on April 15, 2025, organised by OmicsLogic Inc.
109. Faculty Development Programme on “Imperatives of Indian Knowledge System”

organized by the School of Basic and Applied Sciences under the aegis of IQAC from 19th–24th May 2025.

## CONFERENCES ORGANIZED

1. **Organizing Secretary**, International Interdisciplinary Science Conference 2011 on Bioinformatics: Interface between Computer Science and Biology, Jamia Millia Islamia, New Delhi, November 15–17, 2011.
2. **Organizing Secretary**, Interdisciplinary Science Conference 2012 on Protein Folding and Diseases, Jamia Millia Islamia, New Delhi, December 8–10, 2012.
3. **Convener**, National Conference on Recent Trends in Protein Structural Biology, Jamia Millia Islamia, New Delhi, December 16–18, 2013.
4. **Convener**, National Symposium on Biophysics and Golden Jubilee Meeting of the Indian Biophysical Society, Jamia Millia Islamia, New Delhi, February 14–17, 2015.
5. **Convener**, National Conference on Protein Structure and Dynamics in Health and Agriculture, Jamia Millia Islamia, New Delhi, November 3–4, 2017.
6. **Coordinator**, 6th Three-Week Refresher Course in Basic Science (Interdisciplinary), Human Resource Development Centre, Jamia Millia Islamia, September 26–October 17, 2018.
7. **Coordinator**, 9th Two-Week Online Refresher Course in Basic Science (Interdisciplinary), Human Resource Development Centre, Jamia Millia Islamia, October 5–21, 2021.
8. **Organizing Secretary**, BIOPHYSIKA-2024: National Conference on Recent Advancements in Biophysics and Structural Biology held on 28th February 2024.
9. **Convener**, Drug Discovery 2025: Emerging Trends and Future Prospects conference, held 24–26th February 2025.

## JOURNAL PUBLICATIONS

1. Asrani P, Eapen MS, Hassan MI, Sohal SS. Implications of the second wave of COVID-19 in India. *Lancet Respir Med.* 2021, 9(9):e93–94.
2. Rao S, Yang X, Ohshiro K, Zaidi S, Wang Z, Shetty K, et al.  $\beta$ 2-spectrin (SPTBN1) as a therapeutic target for diet-induced liver disease and preventing cancer development. *Science Translational Medicine* 2021;13(624):eabk2267.
3. Queen A, Bhutto HN, Yousuf M, Syed MA, Hassan MI. Carbonic anhydrase IX: a tumor acidification switch in heterogeneity and

- chemokine regulation. *Semin Cancer Biol.* 2022;86(Pt 3):899–913.
4. Gu S, Zaidi S, Hassan MI, Mohammad T, Malta TM, Noushmehr H, et al. Mutated CEACAMs disrupt transforming growth factor  $\beta$  signaling and alter the intestinal microbiome to promote colorectal carcinogenesis. *Gastroenterology.* 2020;158(1):238–52.
  5. Anwar S, Shamsi A, Mohammad T, Islam A, Hassan MI. Targeting pyruvate dehydrogenase kinase signaling in the development of effective cancer therapy. *Biochim Biophys Acta Rev Cancer* 2021;1876(1):188568.
  6. Upadhyay S, Khan S, Hassan MI. Exploring the diverse role of pyruvate kinase M2 in cancer: navigating beyond glycolysis and the Warburg effect. *Biochim Biophys Acta Rev Cancer* 2024;1879(3):189089.
  7. Mohammad T, Mathur Y, Hassan MI. InstaDock: a single-click graphical user interface for molecular docking-based virtual high-throughput screening. *Brief Bioinform.* 2021;22(4): bbaa279.
  8. Basheer N, Smolek T, Hassan I, Liu F, Iqbal K, Zilka N, Novak P. Does modulation of tau hyperphosphorylation represent a reasonable therapeutic strategy for Alzheimer's disease? From preclinical studies to clinical trials. *Mol Psychiatry.* 2023;28(6):2197–2214.
  9. Singh A, Meena M, Kumar D, Dubey AK, Hassan MI. Structural and functional analysis of various globulin proteins from soy seed. *Crit Rev Food Sci Nutr.* 2015; 55(11):1491–1502.
  10. Kumar D, Hassan MI. Targeted protein degraders march towards the clinic for neurodegenerative diseases. *Ageing Research Review* 2022;78:101616.
  11. Khan T, Waseem R, Shahid M, Ansari J, Ahanger IA, Hassan I, Islam A. Recent advancements in therapeutic strategies for Alzheimer's disease: insights from clinical trials. *Ageing Research Review* 2023; 92: 102113.
  12. Khan S, Hassan MI, Shahid M, Islam A. Nature's toolbox against tau aggregation: an updated review of current research. *Ageing Research Review* 2023; 87: 101924.
  13. Prabha S, Sajad M, Hasan GM, Islam A, Hassan MI, Thakur SC. Recent advancement in understanding of Alzheimer's disease: risk factors, subtypes, and drug targets and potential therapeutics. *Ageing Research Review* 2024; 101:102476.
  14. Singh S, Khan S, Shahid M, Sardar M, Hassan MI, Islam A. Targeting tau in Alzheimer's and beyond: insights into pathology and therapeutic strategies. *Ageing Research Review* 2025; 104: 102639.
  15. Iram F, Shahid M, Ansari J, Ashraf GM, Hassan MI, Islam A. Navigating the maze of Alzheimer's disease by exploring BACE1: discovery, current scenario, and future prospects. *Ageing Research Review* 2024;98:102342.
  16. Bashir S, Aiman A, Shahid M, Chaudhary AA, Sami N, Basir SF, Hassan I, Islam A. Amyloid-induced neurodegeneration: a comprehensive review through aggregomics perception of proteins in health and pathology. *Ageing Research Review* 2024; 96: 102276.
  17. Alrouji M, Anwar S, Venkatesan K, Shahwan M, Hassan MI, Islam A, Shamsi A. Iron homeostasis and neurodegeneration in the ageing brain: insight into ferroptosis pathways. *Ageing Research Review* 2024; 102: 102575.
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## Book and Book Chapters

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1. Assistant Dean Students Welfare, Jamia Millia Islamia (2017–2019).
2. Administrative coordinator of Global Jamia Alumni Network (2017-2021).
3. Member, Institutional Quality Assurance Cell, Jamia Millia Islamia (2014-2020).
4. Warden of Boy's Hostel of Jamia Millia Islamia (2013-2015).
5. Senior and Residential Warden of Jamia Schools Hostel (2015-2023).
6. Assistant Professor Incharge, Alumni Connect Cell, Jamia Millia Islamia (2021-2023)
7. Deputy Provost, Zakir Hussain Hall of Boys, Jamia Millia Islamia (2023-2024).
8. Deputy Proctor of Jamia Millia Islamia (2023-2024).