Dr. Imran Hussain
Assistant Professor, Department of Bioengineering, Faculty of Engineering,
Integral University, Lucknow
9235980611, imranhussain@iul.ac.in
https://scholar.google.com/citations?user=aXtK9hEAAAAJ&hl=en
Orcid ID: 0000-0003-1563-7656
https://www.linkedin.com/in/imran-hussain-81561187/

PROFILE

EDUCATIONAL QUALIFICATION:

- Ph.D. in Biochemistry
  University: The University of Texas at Arlington, USA
  Research Advisor: Dr. Subhrangsu S. Mandal
- M. Tech. in Agricultural Biotechnology
  Institute: IIT Kharagpur, India
- M.Sc. in Biotechnology
  University: University of Allahabad, India
- B.Sc. in Biology
  University: DDU Gorakhpur University

EXPERIENCE:

- July 4, 2023-Present: **Assistant Professor of Biotechnology**, Integral University, Lucknow, UP, INDIA
- August 1, 2022-June 6, 2023: **Assistant Professor of Biochemistry**, Lovely Professional University, Phagwara, Punjab, INDIA
- March 29, 2019-June 23, 2022: **Assistant Professor of Biotechnology & Microbiology and Acting Head of School**, School of Life & Allied Health Sciences, Glocal University, Saharanpur, UP, INDIA
- July 28, 2017-March 19, 2019: **Postdoctoral Fellow**, **University of Oklahoma Health Sciences Center, OK, USA**
- May 6, 2013-June 30, 2017: **Postdoctoral Fellow**, **University of Texas Southwestern Medical Center in Dallas, TX, USA**. **This institute has five noble laureates at the moment**.
- August 27, 2007-April 28, 2013: **Graduate Teaching Assistant**, Department of Chemistry and Biochemistry, **University of Texas at Arlington, TX, USA**

RESEARCH INTEREST:

- Molecular Biology of Cancer
- Bioplastic

- Bioremediation

SUMMARY OF RESEARCH ACCOMPLISHMENT:

- Received **Young Scientist Award** in an International Conference organized by Society for Progressive Learning and Research in Lucknow, UP, India
- Received **2nd place in scientific research poster presentation** at Green Center Retreat in Pottsboro, TX organized by UT Southwestern Medical Center, USA
- Received **3rd place in platform presentation** of research work at Texas Forum for Reproductive Sciences 22nd annual meeting in Houston, TX, USA
- Received National Institutes of Health **postdoctoral fellowship** in USA
- Received **graduate teaching assistantship** at University of Texas at Arlington, USA
- Received **STEM doctoral fellowship** at University of Texas at Arlington, USA
- Received **GATE fellowship** from Ministry of HRD, Govt. of India
- Received **DBT scholarship** from Ministry of HRD, Govt. of India
- **Google scholar citations: 1610; h-index: 16; i10-index:19**
- **Cumulative impact factor of publications in scientific journals = 151.38**

PROFESSIONAL MEMBERSHIP:

- The Association for Research in Vision and Ophthalmology, USA; Member ID Number: 247575
- American Association for the Advancement of Science, USA; Member ID Number: 20300359
- American Association of Immunologists, USA; Member ID Number: 1128146
- Life Time Member of Society for Progressive Learning and Research, India

COURSES TAUGHT:

- Biochemistry
- Microbiology
- Immunology
- Molecular and Cell Biology
- Recombinant DNA Technology
- Animal Biotechnology
- Plant Biotechnology
- Fermentation Technology & Downstream Processing
- Bioanalytical Tools & Techniques
- Proteomics and Genomics
- Bioinformatics
- Sequence Analysis and Phylogenetics
- Principles of Management and IPR

ADMINISTRATIVE/DEPARTMENTAL RESPONSIBILTY

- A member of criteria 1 of NAAC
- Coordinator of departmental seminar on IPR
- Course coordinator of MTech Biotechnology course
- Member of departmental admission team
- Faculty coordinator of IDE bootcamp

STUDENTS SUPERVISION

- 3 MTech dissertations and 2 BTech dissertations

PUBLISHED/GRANT PATENTS

- Smart Breast Cancer Therapeutic Device (Applicants: **Imran Hussain**, Ravi K. Deshwal and Sujeet P. Singh; Design No. 403287-001, Application Date: 28-12-2023; Granted in 2024)
- Cancer cell transformation device (Applicants: Mirza Masroor Ali Beg, Ravi K. Deshwal, Haroon Habib Beigh, Nawaid Hussain Khan and **Imran Hussain**, Application No:414686-001, Application Date: 24-04-2024; Granted in 2024)

PUBLISHED/ACCEPTED SCI/SCOPUS RESEARCH PAPERS

- Nabi R, Alvi SS, Ahmad S, Khan M, Khan S, Khan MY, **Hussain I**, Khan S. Carvacrol protects against carbonyl osmolyte-induced structural modifications and aggregation to serum albumin: Insights from physicochemical and molecular interaction studies, Int J Biol Macromol 2022;213:663-74. **[Impact factor: 8.2]**
- Yadav NK, Pokharel DR, Kathayat G, Sigdel M, **Hussain I**. Evaluation of the diagnostic potential of liver aminotransferases and alkaline phosphatase in patients with cardiovascular diseases, Kathmandu Univ Med J 2022;77(1):7-11. ***corresponding author [Impact factor: 0.39]**
- Sharma DC, Kumar P, **Hussain I**, Sharma SK. An in-silico and in-vitro comparative study of compounds from *Phoenix sylvestris* roxb. for alpha amylase enzyme inhibition involved in diabetes mellitus, Biointerface Res Appl Chem 2021;11(5);3347-58. **[Impact factor: 1.949]**
- Yadav NK, Pokharel DR, Kathayat G, Sigdel M, **Hussain I***. Association between serum albumin and cardiovascular diseases among adult population of Kaski district, Nepal, Ann Clin Chem Lab Med 2021;4(1):26-30. ***corresponding author**
- Yadav NK, Pokharel DR, Mahaseth D, Kathayat G, Sigdel M, **Hussain I***. Association between serum liver enzymes and cardiovascular diseases: A case-control study among adults with cardiovascular disease, J Clin Diagnostic Res 2022;16(7):BC04-BC07. ***corresponding author**
- **Hussain I***, Kurya AU, Singh SP, Singh D, Sharma SK, Mir RA. Curcumin inhibition of coronavirus E484 mutated spike protein: an in-silico approach, Virusdisease 2024, accepted. ***corresponding author [Impact factor: 1.292]**
- Hasan RU, Mian SS, Arfi S, Begum B, Verma S, Ahmad R, **Hussain I**, Asif M. Study of Pharmacologically Active Drugs Containing Quinazoline Pharmacophore: A Brief Overview, J Adv Zool 2024;45(1):1166-84.
- Kurya AU, Aliyu U, Gusau MA, Yusuf M, Singh SP, Tudu ARI, **Hussain I**. Recent advancement in acute and chronic graft-versus-host disease: therapeutic prospects of improving the long-term post-transplant outcomes, Transplant Rep 2022. **[Impact factor: 0.1]**
- **Hussain I**, Deb P, Chini A, Obaid M, Bhan A, Ansari KI, Mishra BP, Bobzean SA, Nashir Udden SM, Alluri PG, Das HK, Brothers RM, Perrotti LI, Mandal SS. HOXA5 expression is elevated in breast cancer and is transcriptionally regulated by estradiol, Front Genet 2020; 11(7):1145-61. **[Impact factor: 4.772]**

- **Hussain I**, Bhan A, Ansari KI, Deb P, Bobzean SA, Perrotti LI, Mandal SS. Bisphenol-A induces expression of HOXC6, an estrogen-regulated homeobox-containing gene associated with breast cancer, Biochim Biophys Acta 2015;1849(6):697-708. **[Impact factor: 5.66]**
- Ansari KI*, **Hussain I***, Shrestha B, Kasiri S, Mandal SS. HOXC6 is transcriptionally regulated via coordination of MLL histone methylase and estrogen receptor in an estrogen environment, J Mol Biol 2011;411(2):334-49. ***contributed equally**. **[Impact factor: 5.469]**
- Chen C-C, Montalbano AP, **Hussain I**, Lee W-R, Mendelson CR. The transcriptional repressor GATAD2B mediates progesterone receptor suppression of myometrial contractile gene expression, J Biol Chem 2017;292(30):12560-76. **[Impact factor: 5.157]**
- Mandal SS, Ansari KI**, Hussain I**, Kasiri S, Shrestha B. MLL histone methylases in estrogen-mediated regulation of HOX genes involved in hair follicle development and leukemia, FASEB J 2010;24:456.9-456.9. **[Impact factor: 5.191]**
- Mootha VV, **Hussain I**, Cunnusamy K, Graham E, Gong X, Neelam S, Xing C, Kittler R, Petroll WM. TCF4 triplet repeat expansion and nuclear RNA foci in Fuchs' endothelial corneal dystrophy, Invest Ophthalmol Vis Sci 2015;56(3):2003-11. **[Impact factor: 4.799]**
- Xing C, Gong X, **Hussain I**, Tan D, Aung T, Mehta J, Vithana E, Mootha VV. Transethnic replication of association of CTG18.1 repeat expansion of TCF4 gene with fuchs corneal dystrophy in Chinese implies common causal variant, Invest Ophthalmol Vis Sci 2014;55(11):7073-80. **[Impact factor: 4.799]**
- Ansari KI, **Hussain I**, Kasiri S, Mandal SS. HOXC10 is overexpressed in breast cancer and transcriptionally regulated by estrogen via involvement of histone methylases MLL3 and MLL4, J Mol Endocrinol 2012;48(1):61-75. **[Impact factor: 5.098]**
- Deb P, Bhan A, **Hussain I**, Ansari KI, Bobzean SA, Saha D, Perrotti LI, Mandal SS. Endocrine disrupting chemical, bisphenol-A, induces breast cancer associated homeobox containing gene HOXB9 expression *in vitro* and *in vivo*, FASEB J 2016;30(S1):1053.2-1053.2. **[Impact factor: 5.191]**
- Ansari KI, Shrestha B, **Hussain I**, Kasiri S, Mandal SS. Histone methylases MLL1 and MLL3 coordinate with estrogen receptors in estrogen-mediated HOXB9 expression, Biochemistry 2011;50(17):3517-27. **[Impact factor: 3.162]**
- Ansari KI, **Hussain I**, Das H, Mandal SS. Overexpression of human histone methylase MLL1 upon exposure to a food contaminant mycotoxin, deoxynivalenol, FEBS J 2009;276 (12):3299-307. **[Impact factor: 5.542]**
- Ansari KI, Kasiri S, **Hussain I**, Mandal SS. Mixed lineage leukemia histone methylases play critical roles in estrogen-mediated regulation of HOXC13, FEBS J 2009;276(24):7400-11. **[Impact factor: 5.542]**
- Shrestha B, Ansari KI, Bhan A, Kasiri S, **Hussain I**, Mandal SS. Homeodomain-containing protein HOXB9 regulates expression of growth and angiogenic factors, facilitates tumor growth in vitro and is overexpressed in breast cancer tissue, FEBS J 2012;279(19):3715-26. **[Impact factor: 5.542]**
- Ansari KI, Kasiri S, **Hussain I**, Bobzean SA, Perrotti LI, Mandal SS. MLL histone methylases regulate expression of HDLR-SR-B1 in presence of estrogen and control plasma cholesterol in vivo, Mol Endocrinol 2013;27(1):92-105. **[Impact factor: 5.098]**

- Kasiri S, Ansari KI, **Hussain I**, Mandal SS. Antisense oligonucleotide-mediated knockdown of HOXC13 affects cell growth and induces apoptosis in tumor cells and over expression of HOXC13 induces 3D-colony formation, RSC Adv 2013;3(10):3260-69. **[Impact factor: 3.36]**
- Bhan A, **Hussain I**, Ansari KI, Kasiri S, Bashyal A, Mandal SS. Antisense transcript long noncoding RNA (lncRNA) HOTAIR is transcriptionally induced by estradiol, J Mol Biol 2013;425(19):3707-22. **[Impact factor: 5.469]**
- Bhan A, **Hussain I**, Ansari KI, Bobzean SA, Perrotti LI, Mandal SS. Histone methyltransferase EZH2 is transcriptionally induced by estradiol as well as estrogenic endocrine disruptors bisphenol-A and diethylstilbestrol, J Mol Biol 2014;426(20):3426-41. **[Impact factor: 5.469]**
- Bhan A, **Hussain I**, Ansari KI, Bobzean SA, Perrotti LI, Mandal SS. Bisphenol-A and diethylstilbestrol exposure induces the expression of breast cancer associated long noncoding RNA HOTAIR in vitro and in vivo, J Steroid Biochem Mol Biol 2014;141:160-70. **[Impact factor: 3.785]**
- Deb P, Bhan A, **Hussain I**, Ansari KI, Bobzean SA, Pandita TK, Perrotti LI, Mandal SS. Endocrine disrupting chemical, bisphenol-A, induces breast cancer associated gene HOXB9 expression in vitro and in vivo, Gene 2016;590(2):234-43. **[Impact factor: 3.688]**

PAPER PUBLISHED IN INTERNATIONAL CONFERENCES

- **Hussain I,** Chen C-C, Montalbano AP, Truong P, Mendelson CR. C-terminal Binding Protein 1 (CtBP1) and GATAD2B serve as novel mediators of progesterone/PR suppression of proinflammatory and contractile genes in the myometrium, Nuclear Receptors and Co-Regulators in Health and Disease, Endocrine Society 2016, Page No. OR06-4-OR06-4.
- **Hussain I,** Gong X, Mootha VV. Triplet repeat primed PCR assay to genotype the CTG18. 1 trinucleotide repeat polymorphism in TCF4, The Association for Research in Vision and Ophthalmology 2014, Page No. 1025-1025.

BOOK EDITED/ AUTHORED

- Microbiology Essentials: Journey into the Invisibles (Authors: **Imran Hussain**, Ravi K. Deshwal, Renu Khare and Sujeet P. Singh; Publisher: InkSpire Publishers; ISBN: 978-81-968139-4-9; Publication Date: 01/01/2024).
- Biotechnology Simplified: Basics and Beyond (Authors: **Imran Hussain**, Ravi K. Deshwal and Sujeet P. Singh; Publisher: Natals Publication; ISBN: 978-81-19538-73-7; Publication Date: 14/10/2024).
- Bioinformatics for Beginners: Tools and Techniques (Authors: **Imran Hussain**, Ravi K. Deshwal, Naushad Ahmad Khan and Mirza Masroor Ali Beg; Publisher: Ink Freedom Publication; ISBN: 9-788197-893308; In Press).

BOOK CHAPTERS

- Mandal SS, Ansari KI, **Hussain I**, Bhan A. Impacts of deoxynivalenol on human cells: oxidative stress, misregulation of histone methyl-transferases, HOX genes, and epigenetics; Mycotoxins: Properties, Applications and Hazards 2011, Page No. 45-84 (Book published by Nova Science Publisher).
- Agnihotry S, Pathak RK, Singh DB, Tiwari A, **Hussain I**. Protein structure prediction. Bioinformatics: Methods and Applications 2022, Page No. 177-188 (Book published by Elsevier).
- Singh SK, Devendra DN, **Hussain I**. Artificial intelligence equipped with IoT for automation and enhanced crop yield. Futuristic Trends in Agriculture Engineering & Food Sciences 2024, Page No. 84-95 (Book published by Iterative International Publisher).