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**MUNAZZAH TASLEEM**  
RESEARCH SCIENTIST

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**BIOINFORMATICS TECHNICAL SKILLS**

- Computational biology and bioinformatics (Molecular Modeling, Drug Designing, Molecular Dynamic Simulations).
- Expertise in core bioinformatics software and applications- Biovia Discovery Studio, Schrödinger, Gromacs.
- Genomics data analysis using R/Python.
- Data analysis and management through Biostatistics, Data Science.
- Data Analytics using Power BI.
- Healthcare management through Database Management and Development.
- Relational database management and development using MySQL.

**CONTACT**

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Address: H-4, Taj Enclave, Link Road, Geeta Colony, Delhi-110031, India.

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**CURRICULUM VITAE**

**TEACHING EXPERIENCE**

**GUEST FACULTY**

AUGUST 2023 – TILL DATE, Jamia Hamdard, New Delhi, India.  
Subjects: GENOMICS, PROTEOMICS AND METABOLOMICS.

**ASSISTANT PROFESSOR**

31 AUG– 12 OCT 2022, University Institute of Biotechnology (UIBT), Chandigarh University, Mohali, Punjab, India.

Subjects: Molecular Biology, R Language, Industrial Quality Control and Assurance.

**GUEST FACULTY**

JUL 2016 – MAY 2018, Jamia Millia Islamia, New Delhi, India.

Subjects: Computer-Aided Drug Design, Genomics and Proteomics, Bioinformatics Fundamental, Systems Biology.

MAR – MAY 2018, Jamia Hamdard, New Delhi, India.

Subjects: Bioinformatics & Computational Biology.

**RESEARCH EXPERIENCE**

**RESEARCH SCIENTIST**

NOV 2022 – TILL DATE

APRIL 2022 – AUG 2022, BIAltesse LLC, 5109 Silverton Ln, Louisville, Kentucky 40241, United States. (Work from home)

**POSTDOCTORAL RESEARCHER**

AUG 2020 –AUG 2022, School of Electronic Science and Engineering, University of Electronic Science and Technology of China, Chengdu, China.

**RESEARCH ASSOCIATE**

JUN 2018 – MAY 2019, DBT-BIF, Department of Computer Science Jamia Millia Islamia, New Delhi, India.

**RESEARCH ASSOCIATE**

MAR 2016 – MAY 2018, DBT-BIF, Jamia Hamdard, New Delhi, India.

**SENIOR RESEARCH FELLOWSHIP**

JAN2015 – FEB 2016, CIRBSc, Jamia Millia Islamia, India.

Funding: Indian Council of Medical Research, New Delhi, India.

**PROJECT FELLOW**

AUG 2011 – DEC 2014, CIRBSc, Jamia Millia Islamia, India.

Funding: University Grants Commission, New Delhi, India.

**EDUCATION**

**DOCTOR OF PHILOSOPHY**

Ph. D. Bioinformatics

Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi.

SEP 2012 – DEC 2016

**MASTERS IN BIOINFORMATICS**

Department of Computer Science, Jamia Millia Islamia, New Delhi, India.

JUN 2011.

**BACHELOR OF UNANI MEDICINES AND SURGERY**

Ayurvedic and Unani Tibbia College, University of Delhi, New Delhi, India.

AUG 2007.

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## MEMBER OF SCIENTIFIC SOCIETY

Indian Biophysical Society

## ACADEMIC SERVICE

### Reviewed Journals:

BioMed Research International  
Evidence-Based Complementary and Alternative Medicine  
Frontiers in Bioinformatics  
Frontiers in Cell and Developmental Biology Cancer Cell Biology

### Review Editor:

Drug Discovery in Bioinformatics

## INTERNATIONAL RESEARCH PROJECT

**Project Title:** Understanding and designing the strategies for microbial-mediated bioremediation of heavy metal toxicity in the groundwater of Al Madinah using in silico approaches to control waste management.

**Designation:** Co-Principal Investigator,

**Principal Investigator:** Dr. Abdulwahed Alrehaily (Asst. Prof., Department of Biology, Faculty of Science, IUM)

**Project Funded by:** Islamic University of Madinah, **Date of Start:** September 18, 2022

## RESEARCH ARTICLE PUBLICATIONS

- **Tasleem M**, El-Sayed A-AAA, Hussein WM, Alrehaily A. “*Pseudomonas putida* Metallothionein: Structural Analysis and Implications of Sustainable Heavy Metal Detoxification in Madinah”. *Toxics*. 2023;11(10):864. <https://doi.org/10.3390/toxics11100864> [I.F. 4.6]
- **Tasleem, M.**, W.M. Hussein, A.-A.A.A. El-Sayed, and A. Alrehaily, “*An In Silico Bioremediation Study to Identify Essential Residues of Metallothionein Enhancing the Bioaccumulation of Heavy Metals in Pseudomonas aeruginosa*”. *Microorganisms*, 2023. 11(9): p. 2262, DOI: <https://doi.org/10.3390/microorganisms11092262> [I.F. 4.5]
- Alamri, A., Alkhalawi, F., Khan, N.U., and **Tasleem, M.\***, “*In Silico Screening and Validation of Achyranthes aspera as a Potential Inhibitor of BRAF and NRAS in Controlling Thyroid Cancer.*” *Anti-cancer Agents in Medicinal Chemistry*, 2023. PMID:37287303, DOI: [10.2174/1871520623666230607125258](https://doi.org/10.2174/1871520623666230607125258). [I.F. 2.5]
- **Tasleem, M.**, Hussein, W. M., El-Sayed, A.-A. A. A., Alrehaily, A., “*Providencia alcalifaciens—Assisted Bioremediation of Chromium-Contaminated Groundwater: A Computational Study.*” *Water*. 2023, 15 (6), 1142. <https://doi.org/10.3390/w15061142> [I.F. 3.5]
- **Tasleem, M.**, El-Sayed, A.-A.A.A., Hussein, W.M., Alrehaily, A. “*Bioremediation of Chromium-Contaminated Groundwater Using Chromate Reductase from Pseudomonas putida: An In Silico Approach.*” *Water*. 2023, 15, 150. <https://doi.org/10.3390/w15010150> [I.F. 3.5]
- **Tasleem, M.**, Shoib, A., Alam, M. J., Alsamar, Z., Jamal, Q.S.M., Bardcki, F., Alabdallah, N. M., Upadhyay, T.K., Ansari, I. A., Lai, D., Badroui, R., Yadav, D.k., Alrehaily, A., Saeed, M., “*Computational analysis of PTP-1B site-directed mutations and their structural binding to potential inhibitors*”, *Cell Mol Biol (Noisy-le-grand)*. 2022 Jul 31;68(7):75-84. DOI: [10.14715/cmb/2022.68.7.13](https://doi.org/10.14715/cmb/2022.68.7.13) , PMID: 36495515.[ I.F. 1.7]
- Saeed, M. \*†; **Tasleem, M. †**; Shoib, A.; Kausar, M. A.; Sulieman, A. M. E.; Alabdallah, N. M.; El Asmar, Z.; Abdelgadir, A.; Al-Shammary, A.; Alam, M. J.; Badroui, R.; Zahin, M., “*Identification of Putative Plant-Based ALR-2 Inhibitors to Treat Diabetic Peripheral Neuropathy*”. *Current Issues in Molecular Biology* 2022, 44 (7), 2825-2841. <https://doi.org/10.3390/cimb44070194> [I.F. 3.1]
- Saeed, M.\*; **Tasleem, M.**, Shoaib, A., Alabdallah, N.M., Alam, M.J., Asmar, Z.E., Jamal, Q.M.S., Bardakci, F., Ansari, I.A., Ansar, M.J., Wang, F., Badroui, R., Yadav, D.K.\*; “*Investigation of antidiabetic properties of shikonin by targeting aldose reductase enzyme: In silico and in vitro studies*”, *Biomedicine & Pharmacotherapy*, 2022, 150, 0753-3322, 112985. <https://doi.org/10.1016/j.biopha.2022.112985> [I.F. 7.4].
- Zrieq, R., Snoussi, M., Algahtan, F. D., **Tasleem, M.**, Saeed, M., Noumi, E., Khalifa, N. E., Gad-Elkareem, M. A. M., Aouadi, K., & Kadri, A. (2022). “*Repurposing of anisomycin and oleandomycin as a potential anti- (SARS-CoV-2) virus targeting key enzymes using virtual computational approaches*”. *Cellular and Molecular Biology*, 67(5), 387–398. <https://doi.org/10.14715/cmb/2021.67.5.51> [I.F. 1.7]
- Snoussi, M., Noumi, E., Mosbah, A., Redissi, A., Saeed, M., **Tasleem, M.**, Alreshidi, M., Adnan, M., Al-Rashidi, A., Siddiqui, A. J., Aouadi, K., De Feo, V., & Kadri, A., “*Tripeptides from Allium subhirsutum L. extracts: Pharmacokinetics properties, toxicity prediction and in silico study against SARS-CoV-2 enzymes and pro-inflammatory proteins*”. *Cellular and Molecular Biology*, 2022, 67(4), 143–162. <https://doi.org/10.14715/cmb/2021.67.4.17> [I.F. 1.7]

- **Tasleem, M.\***, Alrehaily, A., Almeleebia, T.M., Alshahrani, M.Y., Ahmad, I., Asiri, M., Alabdallah, N.M., Saeed, M.\*, “Investigation of Antidepressant Properties of Yohimbine by Employing Structure-Based Computational Assessments”. *Curr. Issues Mol. Biol.* 2021, 43, 1805-1827. <https://doi.org/10.3390/cimb43030127> [I.F. 3.1]
- Zrieq, R., Ahmad, I., Snoussi, M., Noumi, E., Iriti, M., Algahtani, F.D., Patel, H., Saeed, M., **Tasleem, M.**, Sulaiman, S., Aouadi, K., Kadri, A. “Tomatidine and Patchouli Alcohol as Inhibitors of SARS-CoV-2 Enzymes (3CLpro, PLpro and NSP15) by Molecular Docking and Molecular Dynamics Simulations”. *Int. J. Mol. Sci.* 2021, 22, 10693. <https://doi.org/10.3390/ijms221910693> [I.F. 6.2]
- Alshahrani, M.Y., Alshahrani, K.M., **Tasleem, M.**, Akeel, A., Almeleebia, T.M., Ahmad, I., Asiri, M., Alshahrani, N.A., Alabdallah, N.M., Saeed, M.\*, “Computational Screening of Natural Compounds for Identification of Potential Anti-Cancer Agents Targeting MCM7 Protein.” *Molecules* 2021, 26, 5878. <https://doi.org/10.3390/molecules26195878> [I.F. 4.9]
- Saeed, M., Shoaib, A., **Tasleem, M.**, Alabdallah, N.M., Alam, M.J., Asmar, Z.E., Jamal, Q.M.S., Bardakci, F., Alqahtani, S.S., Ansari, I.A., Badraoui, R.\*, “Assessment of Antidiabetic Activity of the Shikonin by Allosteric Inhibition of Protein-Tyrosine Phosphatase 1B (PTP1B) Using State of Art: An In Silico and In Vitro Tactics”, *Molecules*, 2021 Jun 30;26(13):3996. <https://doi.org/10.3390/molecules26133996>. PMID: 34208908. [I.F. 4.9]
- Akhter, M., **Tasleem, M.**, Alam, M. M., Ali, S. \*, “In silico approach for bioremediation of arsenic by structure prediction and docking studies of arsenite oxidase from *Pseudomonas stutzeri* TS44”, *International Biodeterioration & Biodegradation*, 2017, Vol.122, page: 82-91. DOI: <https://doi.org/10.1016/j.ibiod.2017.04.021> [I.F. 4.9]
- **Tasleem, M.**, Ishrat, R., Islam, A., Ahmad, F., Hassan, M. I.\*, “Human Disease Insight: An integrated knowledge-based platform for disease-gene-drug information”. *Journal of Infection and Public Health* 2016 9(3):P. 331-338 DOI: <https://doi.org/10.1016/j.jiph.2015.10.018>, PMID: 26631432 [I.F. 3.7]
- **Tasleem, M.**, Ishrat, R., Islam, A., Ahmad, F., Hassan, M. I.\*, “Structural Characterization, Homology Modeling and Docking Studies of ARG674 Mutation in MyH8 Gene Associated with Trismus-Pseudocampodactyly Syndrome”. *Letters in Drug Design & Discovery*, 2015. 12(10): p. 1177 - 1187. <https://doi.org/10.2174/1570180811666140717190217> [I.F. 1.1]
- Kumar, K., Amresh, P., **Tasleem, M.**, Islam, A., Ahmad F., Hassan, M. I.\*, "Functional annotation of putative hypothetical proteins from *Candida dubliniensis*". *Gene*, 2014. 543(1): p. 93-100. DOI: <https://doi.org/10.1016/j.gene.2014.03.060> PMID: 24704023 [I.F. 3.7]
- Kumari, M., Mauria, J. K., **Tasleem, M.**, Singh, P., Patel, R.\*, "Probing HSA-ionic liquid interactions by spectroscopic and molecular docking methods". *Journal of Photochemistry and Photobiology B: Biology*, 2014. 138: p. 27-35. <https://doi.org/10.1016/j.jphotobiol.2014.05.009>, PMID: 24911269 [I.F. 6.2]

#### REVIEW ARTICLE PUBLICATIONS

- Rauf, M.A., **Tasleem, M.**, Bhise, K., Tatiparti, K., Sau, S., and Iyer, A.K.\*, “Nano-therapeutic strategies to target coronavirus”, *View*, 09 March, 2021, DOI: <https://doi.org/10.1002/VIW.20200155>
- Routray, I., Mahmood, A., Ngwa, N. E., **Tasleem, M.**, Sahin, K., Kuck, O., Ali, S.\*, “Cell line cross-contamination and accidental co-culture”. *Journal of Stem Cell Research & Therapeutics* (2016)1(5): 0031. DOI:10.15406/jsrt.2016.01.00031

#### CONFERENCE PUBLICATIONS (NATIONAL/INTERNATIONAL)

- **Tasleem, M.**, Alam, S.A., Kalim, J., Bano. S.\*, “Biological Evaluation and Molecular docking of Some Synthesized Flavanone Derivatives as Potential Antifungal Agents” 9<sup>th</sup> DBT-BIF Sponsored National Workshop on Translational Bioinformatics: Guinness Book of Recording to Digital Era- 2019 (NWTB: GB2DE-2019).
- Naaz, S., **Tasleem, M.**, Parveen, R., Rizvi, S.A.M.\*, “Comparison analysis of pathogenic species of *Vibrio cholerae* on the basis of outer membrane proteins to identify potential vaccine targets” 9<sup>th</sup> DBT-BIF Sponsored National Workshop on Translational Bioinformatics: Guinness Book of Recording to Digital Era- 2019 (NWTB: GB2DE-2019).

#### INVITED TALK

- Title: "Molecular Docking using AutoDock Vina", Symposium: A Workshop on “Bioinformatics and Statistical Analysis Tools”, March, 20-22, 2021. Organized by Research Alchemy Pvt. Ltd.

#### POSTER/ORAL PRESENTATION AT NATIONAL/INTERNATIONAL CONFERENCE

- Naaz, S., **Tasleem, M.**, Parveen, R., Rizvi, S.A.M.\*, “Comparison analysis of pathogenic species of *Vibrio cholerae* on the basis of outer membrane proteins to identify potential vaccine targets” 9<sup>th</sup> DBT-BIF Sponsored National Workshop on Translational Bioinformatics: Guinness Book of Recording to Digital Era- 2019 (NWTB: GB2DE-2019).
- Meha, K., Singh, B.K., and **Tasleem, M.\***, “Antifungal activity of medicinal plant extracts against *Aspergillus niger*”, 9<sup>th</sup> DBT-BIF Sponsored National Workshop on Translational Bioinformatics: Guinness Book of Recording to Digital Era- 2019 (NWTB: GB2DE2019).

- Fatima, N., **Tasleem, M.**, Parveen, R., Rizvi, S.A.M.\*, “*An in-silico approach to analyze anti-asthmatic activity of natural compounds from Hedeoma patens*”, 9<sup>th</sup> DBT-BIF Sponsored National Workshop on Translational Bioinformatics: Guinness Book of Recording to Digital Era- 2019 (NWTB: GB2DE-2019).
- **Tasleem, M.**, Qazi, S., Rizvi, S.A.M.\*, “*An in silico study on the antidepressant activity of Yohimbine*”, Athens Institute for Education and Research, A World Association of Academics and Researchers, Annual International Conference on Computer & Software Engineering, 22-25 July 2019, Athens, Greece.
- **Tasleem, M.**, Akhter, M., Ali, S.\*, “*In silico approach for bioremediation of arsenic by structure prediction and docking studies of arsenite oxidase from Pseudomonas stutzeri TS44*”, Post-doctoral Research Conclave (PDRC2018), Jamia Hamdard, 2018
- Rizvi, H.S., **Tasleem M.**, Rizvi, S.A.M.\*, “*Emerging Issues on Society, Economy and Governance with Special Reference to Digital India*”, 2nd Annual Conference of Association of the Socio-Economic Development Studies (ASEDS) on Emerging Issues on Society, Economy and Governance with special reference to Digital India, December 6<sup>th</sup> & 7<sup>th</sup>, 2018.
- Singh, M., **Tasleem, M.\***, “*In silico studies of Natural Compounds against Japanese Encephalitis Virus NS3 protein*” at International Conference on Advances in Biosciences and Biotechnology held at JIIT, Noida, 1-3 Feb 2018
- Singh, M., **Tasleem, M.\***, “*Molecular Docking studies of phytochemicals targeting Japanese Encephalitis virus*” at Inbix’17 in Birla Institute of Scientific Research, Jaipur, Nov 7-9, 2017.
- **Tasleem, M.**, Ali, S., Akhter, M.\*, “*Bioremediation of arsenic by structure prediction and docking studies of arsenite oxidase from Pseudomonas stutzeri TS44*” in UGC-sponsored National Conference in Chemistry: Environment & Harmonious Development at India Intl Center, Delhi, (7-8 April 2017)
- **Tasleem, M.**, Ishrat, R., and Hassan, M.I.\*, “*Human Disease Insight*” in National Symposium on Biophysics & Golden Jubilee Meeting of the Indian Biophysical Society (14-17 February 2015), Jamia Millia Islamia, New Delhi.
- **Tasleem, M.**, Ishrat, R., Ahmad, F., and Hassan, M.I.\*, “*Structure–function analysis of an evolutionary conserved protein, MYH8, which mediates Trismus-pseudocampodactyly syndrome*” at National Conference in Recent Trends in Protein Structural Biology-2013 at Jamia Millia Islamia, New Delhi.
- **Tasleem, M.**, Ishrat, R., Ahmad, F., and Hassan, M.I.\*, “*Genome annotation of Candida dubliniensis revealed several targets for Structure based Drug design*”, at Biology and Bioinformatics of Economically Important Plants and Microbes, February-2012, University of North Bengal, Siliguri.
- **Tasleem, M.**, Kalam, S., Ahmad, F., and Hassan, M.I.\*, “*Structure Based Function Prediction of Putative Conserved Protein from Candida dubliniensis*” at International Interdisciplinary Science Conference-2011 at Jamia Millia Islamia, New Delhi.

#### SEMINAR/WORKSHOP ORGANIZED

- A Workshop on “Bioinformatics and Statistical Analysis Tools”: March 20-22, 2021.
- 9<sup>th</sup> DBT-BIF Sponsored National Workshop on “Translational Bioinformatics: Guinness Book Recording to Digital Era”- 2019: March 6-7, 2019.
- Seminar-cum-Hands-on Training on R Language and Drug Development: October 30-31, 2017.
- Recent Trends in Computational Bioinformatics (Workshop cum Hands-on training): September 15, 2017.
- Molecular Docking, Fragment-Based Drug Design and Post Docking Analysis (Web Seminar): August 4, 2017.

#### DISSERTATION SUPERVISED AT PG LEVEL at JMI, PG

##### Academic Session 2017-19

- A Comprehensive Database of Herbal Medicines for Neurological Disorders.
- *In silico* multi-targeted drug approach using *Yohimbine*.
- An *in silico* approach to analyze anti-asthmatic activity of natural compounds from *Hedeomapatens*.
- Comparison Analysis of Pathogenic Species *Vibrio cholerae* on the Basis of Outer Membrane Protein to Identify Target Protein.
- *In silico* Comparative Molecular Docking Study & Analysis of Anti-depressive Activity of *Yohimbine*.
- Anti-hypertensive Alkaloids.
- *In silico* Studies of Anti-tubercular Metabolites.
- *In-silico* mechanistic study of Diethylcarbamazine: Identification of targets in Filariasis.
- The Endocrine Disrupting Agents and their Role in Diabetes Using *in silico* Approach.
- Database of Cell Lines.

#### PROJECT WORK UNDERTAKEN

Project Name	Institute	Year
Validation of Bhageerath-H	SCFBIO, Indian Institute of Technology, Delhi and Department of Computer Science, Jamia Millia Islamia	2011
Structural modeling of CASP-09 sequences	SCFBIO, Indian Institute of Technology, Delhi	2010