

SHADABI BANO

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PROFESSIONAL SKILLS

- Project planning and management
- Research planning and process development
- Scientific data analysis and interpretation
- Scientific writing and presentation
- MS Word, MS Excel and MS Powerpoint

RESEARCH SKILLS

- Molecular Biology - Primer designing, cDNA synthesis, PCR, Quantitative PCR and Cloning
- Protein Biology -Isolation, Purification, Quantification, Western blot analysis, Biophysical and biochemical characterization
- Protein-drug interaction analysis- Spectroscopic, Calorimetric and Inhibition assay
- Computational skills: Molecular dynamic simulation, Autodock Vina, PyMol, Chimera, Chromas, SigmaPlot, Graphpad Prism

ACADEMIC PROFILE

- Awarded PhD in Biosciences on the topic "Understanding the structural and mechanistic role of heparin cofactor II in hemostasis"; Jamia Millia Islamia; 2021
- Master in Biotechnology; Jamia Millia Islamia (New Delhi); 2014 - 88%
- Bachelors of Science (H), Biotechnology; Patna University (Patna); 2012- 80%
- Higher secondary school; Bihar School Examination Board (Patna); 2008- 62%
- Senior secondary school; Bihar School Examination Board (Patna); 2006 - 71%

KEY ACHIEVEMENTS

- Awarded by ICMR-SRF fellowship in Feb, 2021
- Qualified Department of Biotechnology (DBT)-JRF (Category-1), 2014
- Scored 98.9 percentile (AIR 204) in GATE 2014, Biotechnology
- Secured 2nd position in course MSc Biotechnology at Jamia Millia Islamia
- Secured 3rd position in course BSc (H) Biotechnology at Patna University, Patna

CERTIFICATION COURSES

- Pursuing course on "IVDR 2017 746 regulatory affairs: Learn EU compliance" from Udemy
- Completed one month international bioinformatics virtual workshop on "Next Generation Sequencing Analysis" organized by Premas Lifescience Pvt. Ltd, and decode Life from July- Aug, 2022

LANGUAGES

- English
- Hindi

Summary

A life science researcher in areas of biochemistry, molecular biology, microbiology, and computational biology. Ability to work well in a team. Trained in scientific data analysis and interpretation. Research papers published in peer-reviewed international journals.

Research Experience

ICMR-SRF Mar, 2021 – to date

- *In vitro* analysis of binding of polysulfated trehalose with heparin cofactor II (HCII) and its mutagenic variants
- Generation of mutagenic variants of HCII through site directed mutagenesis

DBT-SRF Oct, 2016 – Sept, 2019

- Identification and confirmation of alternatively spliced novel isoform of HCII in human liver
- Biophysical and Biochemical characterization of novel HCII isoform

DBT-JRF Oct, 2014 – Sep, 2016

- Screening and identification of conformational modulators of HCII
- Structural and functional analysis of polysulfated lead (Mannose pentasulfate) with HCII

Patent

- A method to reduce *in vivo* thrombus formation using Mannose 2,3,4,5,6-*O*-pentasulfate as a novel antithrombotic agent. Patent ID: 201811042125, 2020

Recent Publications

- March, 2022 - Mannose 2, 3, 4, 5, 6-*O*-pentasulfate (MPS): A partial activator of human heparin cofactor II with anticoagulation potential – Journal of Biomolecular Structure and Dynamics. (IF: 3.39)
- April, 2021 - Detection of truncated isoforms of human neuroserpin lacking the reactive center loop: Implications in non-inhibitory role- IUBMB Life. (IF: 4.70)
- April, 2021-Contrasting conformational dynamics of β -sheet A and helix F with implications in neuroserpin inhibition and aggregation- International Journal of Biological Macromolecules. (IF: 8.02)
- July, 2020 - Identification and characterization of a novel isoform of Heparin Cofactor II in the human liver- IUBMB Life. (IF: 4.70)
- Feb, 2020- Identification and characterization of a novel variant in C-terminal region of Antithrombin (Ala427Thr) associated with type II AT deficiency leading to polymer formation- Journal of Thrombosis and Thrombolysis. (IF: 5.22)
- Jan, 2020- Quercetin 3, 3', 4', 5, 7-*O*- pentasulfate (QPS): A novel activator of protein disulfideisomerase- Medicine in Drug Discovery.
- June, 2016 - Role of heparin and non-heparin binding serpins in coagulation and angiogenesis: A complex interplay-Archives of Biochemistry and Biophysics. (IF: 4.11)

Project Training

- On "Synthesis and Characterization of Triazole & Evaluation of its Antioxidant Activity" from Centre for Interdisciplinary Research in Basic Sciences. JMI, 2014

Recent Conferences and Workshops

- Attended workshop on "Mass Cytometry" conducted by Premas Life Sciences and Standard Biotoools on 13th & 14th July, 2022
- Attended the lecture on "Genome Editing in Animals for enhancing productivity" organised by DBT/Wellcome Trust India Alliance in collaboration with Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) and IIT Roorkee as part of "Continue Biotechnology Education Lecture Series" in June, 2022
- Poster presentation at International Conference on Future Diagnostic, Therapeutic and Theranostics Modalities organized by Aligarh Muslim University, Aligarh on topic "Investigation of potential activator of Heparin Cofactor II: Multi-spectroscopic and molecular modelling approach" in December 2018
- Poster presentation at symposium entitled "Biophysika" organized by Centre for Interdisciplinary Research in Basic Sciences, JMI in November 2018