

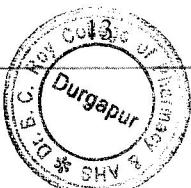
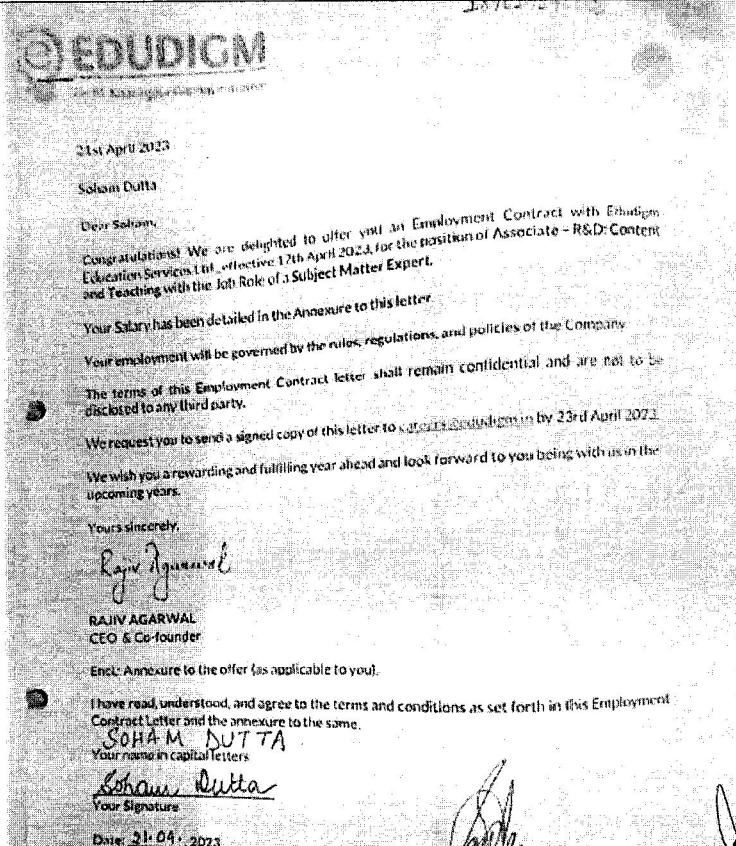


### 2.2.1 OUTCOME OF PROGRAMS DESIGNED FOR ADVANCED LEARNERS

SI. No.	UNIV. ROLL NO	Name	Outcome
<b>Advanced Learners</b>			
1	18901919002	SOHAM DUTTA	Associate- R & D, Edudigm Education Services Ltd.
2	18901919004	SUCHETA KARMAKAR	Master of Science (Biotechnology), National University of Singapore
3	18901919005	ANITA KUMBHAKAR	Got Admission in Praxis Business School Foundation for CAT preparation
4	18901919008	NIKITA DUTTA	Qualified in GPAT
5	18901919032	HIRAK BHOWMIK	Higher Study, M. Pharm. Pharmacology, JIS University, Kolkata
6	18901919041	SPURTIKA JANA	Apprentice, Bengal Chemicals and Pharmaceutical Ltd.
7	18901919050	SOURAV PAUL	Qualified in GPAT

### 2.2.1 OUTCOME DETAILS FOR ADVANCED LEARNERS

18901919002	SOHAM DUTTA
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Approved by PCI & Affiliated to MAKAUT, WB and WBSCT&VE&SD  
Dr. Meghnad Saha Sarani, Bidhannagar, Durgapur-713206, West Bengal (India)

18901919004

SUCHETA KARMAKAR

Faculty of Science  
Dean's Office



**Offer of Admission**

06 September 2023

MISS SUCHETA KARMAKAR  
Application Number: XXXXX95628

Dear SUCHETA KARMAKAR,

Congratulations! We are pleased to inform you that you have been offered provisional admission to the programme specified below.

Programme:	Master of Science (Biotechnology)
Term:	Academic Year 2024/2025, Semester 1
Academic Load:	Full-Time
Candidature Start Date:	05 August 2024
Candidature Period (normal to maximum):	1 to 2 years

This offer of admission is subject to confirmation that you have submitted your passport copy (for international applicants) / NRIC front & back copy (for Singaporeans & Singapore Permanent Residents), if not yet submitted, latest by 15 May 2024; copy of your official graduation certificate and final transcript for Bachelor's Degree and Master's Degree (if applicable) latest by 15 July 2024.

**Acceptance of Offer**

To accept this offer of admission, a non-refundable acceptance fee payment of SGD3,400 (inclusive of GST) is required and it will be used to offset against your first tuition fee payment.

Please login to the Graduate Admission System <https://inetapps.nus.edu.sg/gcs/> to accept the offer, complete payment for the acceptance fee and upload a softcopy of your passport-sized photograph by 20 September 2023.

- For the User Guide on accepting the offer and payment of acceptance fees, please refer to the item "Submit Reply on Offer of Admission Online" at <https://nus.edu.sg/registrar/docs/info/academic-activities/registration/applicant-guide-for-graduate-admission-system.pdf>.
- For online photo submission requirements, please refer to <https://www.nus.edu.sg/registrar/docs/info/academic-activities/registration/requirements-of-photograph-for-online-submission.pdf>.

Your offer of admission will be withdrawn if you:

Bk 516 Level 5, 6 Science Drive 2, Singapore 117546  
Tel: (65) 6516 3092 Fax: (65) 6873 1103  
Website: [www.science.nus.edu.sg](http://www.science.nus.edu.sg)  
Company Registration No: 200604346Z

15/09/2023  
NUS  
National University of Singapore  
Graduate Admissions

# **Structural insights into the interactions of repositioning and known drugs for Alzheimer's disease with hen egg white lysozyme by MM-GBSA**

Amit Kumar Halder<sup>a,b\*\*</sup>, Puja Mishra<sup>a</sup>, Souvik Basak<sup>a\*</sup>, Debjani Roy<sup>c</sup>, Anurag Das<sup>a</sup>, Sucheta Karmakar<sup>a</sup>, Ritam Mondal<sup>a</sup>, Shrestha Banerjee<sup>a</sup>, Prakarsha De<sup>a</sup>, Ankit Chatterjee<sup>a</sup>, Susmita Mallick<sup>a</sup>, Abhijit Hazra<sup>d</sup>

<sup>a</sup>Dr. B. C. Roy College of Pharmacy & Allied Health Sciences, Durgapur, WB, India

<sup>b</sup>LAQV@REQUIMTE/Department of Chemistry and Biochemistry, Faculty of Sciences, University of Porto, 4169-007 Porto, Portugal.

<sup>c</sup>Department of Biological Sciences, Bose Institute, Kolkata, India

<sup>d</sup>National Institute of Pharmaceutical Education and Research, Kolkata, India

<sup>\*\*</sup>equal contribution

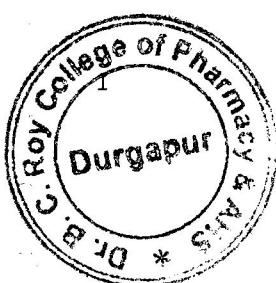
<sup>\*</sup>Joint corresponding author

E-mail: [amit.halder@bcrcp.org](mailto:amit.halder@bcrcp.org), [roydebjani13@gmail.com](mailto:roydebjani13@gmail.com)

Authors' contributions:

*AKH, PM, SB: Conceived, designed and performed the simulations and the entire experiments, AKH: MD and MM-GBSA, writing the manuscript; SK and PM: Experimentation and writing the manuscript; DR: Provided molecules, simulations and financial support; AH: CD experiments and data analyses; PD, ShB, AD, SK, RM, AC and SM: Setting up the drug-protein reactions, batch and concentration dependent studies; optimizations, CR and ThT assays, SM, PM, SB: FESEM studies and data analyses*

## **ABSTRACT**



Prof. (Dr.) Samir Kumar Samanta  
M. Pharm., Ph.D (J.U.)  
Principal  
Dr. B. C. Roy College of Pharmacy & AHS  
Durgapur, West Bengal - 713206

Six drugs (dapsone, diltiazem, timolol, rosiglitazone, mesalazine, and milnacipran) that were predicted by network-based polypharmacology approaches as potential anti-Alzheimer's drugs, have been subjected in this study for *in silico* and *in vitro* evaluation to check their potential against protein fibrillation, which is a causative factor for multiple diseases such as Alzheimer's disease, Parkinson's disease, Huntington disease, cardiac myopathy, type-II diabetes mellitus and many others. Molecular docking and thereafter molecular dynamics (MD) simulations revealed that diltiazem, rosiglitazone, and milnacipran interact with the binding residues such as Asp52, Glu35, Trp62, and Asp101, which lie within the fibrillating region of HEWL. The MM-GBSA analysis revealed -7.86, -5.05, and -10.29 kcal/mol as the binding energy of diltiazem, rosiglitazone, and milnacipran. The RMSD and RMSF calculations revealed significant stabilities of these ligands within the binding pocket of HEWL. While compared with two reported ligands inhibiting HEWL fibrillation, milnacipran depicted almost similar binding potential with one of the known ligands (Ligand binding affinity -10.66 kcal/mol) of HEWL. Furthermore, secondary structure analyses revealed notable inhibition of the secondary structural changes with our candidate ligand; especially regarding retention of the 3/10  $\alpha$ -helix both by DSSP simulation, Circular dichroism, and FESEM-based microscopic image analyses. Taking further into experimental validation, all three ligands inhibited fibrillation in HEWL in simulated conditions as revealed by blue shift in Congo red assay and later expressing percentage inhibition in ThioflavinT assay as well. However, dose-dependent kinetics revealed that the antifibrillatory effects of drugs are more pronounced at low protein concentrations.

**Keywords:** Protein fibrillation, Drug repositioning, MM-GBSA, Congo red, ThioflavinT



Prof. (Dr.) Samit Kumar Samanta  
M. Pharma., Ph.D. (I.U.)  
121, 122, 123  
Dr. B. C. Roy College of Pharmacy & AHS  
Durgapur, West Bengal 713206



18901919005

ANITA KUMBHAKAR



## PRAXIS BUSINESS SCHOOL FOUNDATION

Bakrahat Road, P.O. Rasapunja, 24 Parganas (South), Kolkata - 700 104

### MONEY RECEIPT

Receipt No. : 2591

Date : 07.11.23

Received with thanks from Anita Kumbhakar  
the sum of Rs. 26,000/- Two Lakh Sixty thousand only -

By Cash / Cheque No. / Demand Draft No. SBIN/23310909081

Dated 06.11.2023 Drawn on

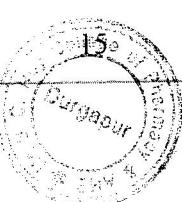
on account of Second installment fees PGDM 2023-25 batch

Rs. 26,000/-

Cheque Subject to realisation

For PRAXIS BUSINESS SCHOOL FOUNDATION

Authorised Signatory



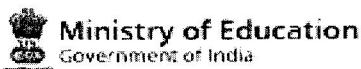
ANITA KUMBHAKAR  
M.Sc., Ph.D (J.U.)  
Authorised Signatory  
Praxis Business School Foundation  
Durgapur, West Bengal - 713206  
Mobile: 9833221111



Approved by PCI & Affiliated to MAKAUT, WB and WBSCT&VE&SD  
Dr. Meghnad Saha Sarani, Bidhannagar, Durgapur-713206, West Bengal (India)

18901919008

NIKITA DUTTA



Application No.	280210019985	Roll No.	WB10040280	   <small>Authenticity Verification Seal</small>
Candidate's Name	NIKITA DUTTA			
Mother's Name	PINKI DUTTA			
Father's Name	DEBABISH DUTTA			
Category	General	Person with Benchmark Disability(PwBD)	No	
Gender	Female	Date Of Birth	15/10/1999	
State of Residence	BHAR	Nationality	Indian	

Score					
Details	NTA Score (In Figures)	All India Rank	Validity of Score		
NTA Score in Words	Ninety Nine point Six Four Nine Three Seven One One Only	222	Three Years		
Result	QUALIFIED				

Category wise Cut-off (NTA Score)					
	Unreserved (UR)	GEN-EWS	Other Backward Class (OBC-NCL)	Scheduled Caste (SC)	Scheduled Tribe (ST)
Cut-off	96.1812235	90.1695042	90.5718216	77.1061859	57.7465592

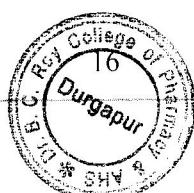
Result Date : 01.07.2023

  
Director, NTA

Important Instructions

- The NTA Score of a candidate indicates the percentage of candidates who have scored EQUAL TO OR BELOW (same or lower raw marks) than candidate in that session.
- The NTA scores of a Candidate have been calculated as follows:  

$$\frac{\text{Number of candidates appeared in the Session} \times 100}{\text{Total number of candidates appeared in the Session}}$$
- NTA score is not the same as percentage of marks obtained.
- A National Merit Ranking (All India Rank) has been arrived on the basis of NTA Score.
- Candidates having same Score shall be listed in a chronological (ascending) order as per their date of birth.
- Candidates having same score would be given the same Merit, and the Merit number would be increased by the same number i.e. if there are two candidates at Merit 2, Merit 3 would not be awarded to the next candidate but Merit 4 would be given.
- The admission authorities are advised to use a score awarded to the students for allotment of seat in the AICTE approved programs along with the other criteria that may exist as applicable.
- Candidate's particulars including Category and Person with benchmark Disability(PwBD) have been indicated as mentioned by the candidate in the online application form.
- Instances of Incorrect Information provided by the candidates, if detected at any stage, would make the candidate liable for disqualification.



  
B.C. Roy College of Pharmacy and Allied Health Sciences  
Durgapur, West Bengal - 713206  
Date: 16/07/2023



Approved by PCI & Affiliated to MAKAUT, WB and WBSCT&VE&SD  
Dr. Meghnad Saha Sarani, Bidhannagar, Durgapur-713206, West Bengal (India)

18901919032

HIRAK BHOWMIK

<b>JIS UNIVERSITY</b>	
81, Nilgunj Road, Agarpara, Kolkata - 700109	
Phone: +91 33 2563 7777 / 8888,	
Website: <a href="http://www.jisuniversity.ac.in">www.jisuniversity.ac.in</a>	
ID No.	JISU 202300112
Name	Hirak Bhowmik
Stream	M PHARM: Pharmacology
Phone	918016205876
Blood Group	O-
Session	2023
Issued on	01/09/2023



MONEY RECEIPT

JIS UNIVERSITY

81, Nilgunj Road, Agarpara, kolkata - 700 109

Phone: 25231246/25636677, Fax: 033-2583 7029, eMail: purchases@jisgroup.org



Application No : 20230053746

Student Name : Hirak Bhowmik

Student Code : JISU/2023/0112

Batch : M.Pharm in Pharmacology[23-25][4TH BATCH]

Semester : 1

Receipt No : REC-05042023-22

Receipt Date : 05/04/2023

Transaction ID : 67859291581

Transaction Date : 05/04/2023

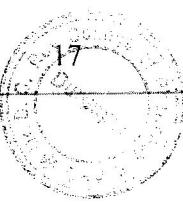
Fees Name	Amount
Provisional Admission Fees	50,000.00
Total	50,000.00
Amount In Words -	Fifty Thousand Only

05/04/2023

This is a computer generated printout and no signature is required

2:49:59PM

Updation of Payment is subject to realization of funds from Service Provider/Bank

  
 Prof. (Dr.) Samir Kumar Sarker  
 P.G. Head, Department of  
 M.Pharm. (Pharmacology)  
 R.D.S. College of Pharmacy  
 Durgapur, West Bengal



Approved by PCI & Affiliated to MAKAUT, WB and WBSCT&VE&SD  
Dr. Meghnad Saha Sarani, Bidhannagar, Durgapur-713206, West Bengal (India)

18901919041

SPURTIKA JANA

बंगाल केमिकल्स एण्ड  
फार्मास्यूटिकल्स लिंग  
(भारत सरकार का एक उपकरण)

पंजीकृत कार्यालय 6, गणेश चन्द्र एवेन्यु, कोलकाता-700 013  
फोन : 033-2237-1525 / 26

कार्पोरेट आईडिन्टिफिकेशन नं. : U24299WB1981GOI033489  
ई-मेल : secretariat@bengalchemicals.co.in / bcpimdssecretariat@gmail.com  
वेबसाइट : www.bengalchemicals.co.in



BENGAL CHEMICALS &  
PHARMACEUTICALS LTD.

(A Govt. of India Enterprise)

Registered Office : 6, Ganesh Chunder Avenue, Kolkata 700113

Ph. 2237-1525 / 26

Corporate Identification No : U24299WB1981GOI033489

E-mail : secretariat@bengalchemicals.co.in / bcpimdssecretariat@gmail.com

Website : www.bengalchemicals.co.in

रोटरी नं. 61 1938

PER / 1801-A/23

01/09/2023

MS. SPURTIKA JANA  
VILL: THAKURCHAK,  
P.S.: NANDAKUMAR,  
P.O.: DHANYAGHAR,  
PURBA MIDNAPUR - 721643.

Dear Sir/Madam,

Sub: Engagement as Degree Apprentice (PHARMACY)

With reference to the names sponsored by BCPL and subsequent interview held with us, we are pleased to inform you that you have been selected as **Degree Apprentice** on the following terms and conditions :-

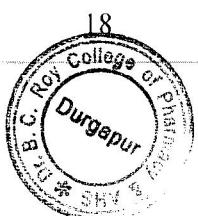
You will be paid stipend of **₹. 9,000/- (Rupees Nine Thousand)** only per month. As a trainee you will not be entitled to any other benefit/privilege available to the regular employees. This is, however, subject to statutory deduction, if applicable.

Be it clearly understood and agreed that as a trainee you will not have any benefit/right on the regular job, either during the initial or extended period of training.

You will be under training for a period of 12 (twelve) months from the date of your joining which will come to an automatic end on the expiry of 12 months. If, however, your progress and performance is found to be unsatisfactory, the training period shall be liable to be dispensed with during the initial period of training, purely at the discretion of the Management.

This engagement is further subject to verification of the particulars given by you in your application form and during the interview. In case any particulars, mentioned or furnished by you, are found to be false or incorrect, your apprenticeship shall stand terminated without any notice.

You will have to make your own arrangement for your transport etc., and the Company will not provide you any other facilities other than your monthly stipend.



MD. SAMIR KUMAR SARKAR  
PH.D (J.U.)  
PROFESSOR & DEAN  
B.C. ROY COLLEGE OF PHARMACY & ALLIED HEALTH SCIENCES  
DURGAPUR  
WEST BENGAL  
INDIA  
PIN-713206  
MOBILE: +91 98335 22222



Approved by PCI & Affiliated to MAKAUT, WB and WBSCT&VE&SD  
Dr. Meghnad Saha Sarani, Bidhannagar, Durgapur-713206, West Bengal (India)

18901919050

SOURAV PAUL



**Ministry of Education**  
Government of India



GRADUATE PHARMACY  
APTITUDE TEST (GPAT) 2023  
NTA SCORE CARD



ભારતીય પરીક્ષા એક્ઝામ્સ  
National Testing Agency  
ભારત સરકાર

Application No.	230210029001	Roll No.	WB10040353	    AABGPAT2023-CandidateScoreCard
Candidate's Name	SOURAV PAUL			
Mother's Name	GOUR PAUL			
Father's Name	SANAT PAUL			
Category	OBC-NCL (Central List)	Person with Benchmark Disability (PwBD)	No	
Gender	Male	Date Of Birth	27/04/1998	
State of Residence	WEST BENGAL	Nationality	Indian	
<b>Score</b>				
Details	NTA Score (In Figures)	All India Rank	Validity of Score	
	97.4233602	1615	Three Years	
NTA Score in Words	Ninety Seven-point Four Two Three Three Six Zero Two Only			
Result	QUALIFIED			
<b>Category wise Cut-off (NTA Score)</b>				
	Unreserved (UR)	GEN-EWS	Other Backward Class (OBC-NCL)	Scheduled Caste (SC)
Cut-off	96.1812235	90.1695242	90.5716216	77.1061859
				57.7465592

Result Date : 01.07.2023

Director, NTA

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**100XNumber of candidates appeared in the Session/ with raw score EQUAL TO OR LESS than the candidate**  
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