

PAROMA AREFIN

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SUMMARY

- I am a **Senior Scientific Officer** in Bangladesh Council of Scientific and Industrial Research(BCSIR), the topmost research organization in Bangladesh.
- I have completed 03 projects as a Project leader and worked on 06 R&D projects as a research associate.
- Additionally, I have worked as a **lecturer** at ASA University Bangladesh and SouthEast University.
- I have published more than 30 research articles in peer-reviewed journals.
- I have achieved 2 scholarships for academic achievements and received 3 grants for research.

EDUCATION

2013- 2014 **Master of Pharmacy (Pharmaceutical Science)**
University of Dhaka
CGPA: **3.85 out of 4.00**
Merit Position: **3rd out of 21 students** (class of 2014)

2009-2012 **Bachelor of Pharmacy**
University of Dhaka
CGPA: **3.88 out of 4.00**
Merit Position: **4th out of 60 students** (class of 2012)

RESEARCH AND PROFESSIONAL EXPERIENCE

1. Senior Scientific Officer *15 March 2016- Present*
Bangladesh Council of Scientific and Industrial Research (BCSIR)

- Assisted with different Research & Development projects.
- Supervised 4 undergraduate and 2 graduate students in doing their thesis with the collaboration of BCSIR.

- Provided commercial consultancy and testing services to individuals and industries.
- Achieved Hands on Experience in **HPLC, LCMSMS, Ion Chromatography, UV Spectrometer AAS, FTIR, GC-MS, Particle Size Analyzer, DSC, SEM, TG-DTA, along with dissolution tester, disintegration tester, friability tester, hardness tester etc.**

2. Lecturer

18 October 2014- 9 January 2016

ASA University Bangladesh

- Taken Theory and Laboratory classes
- Supervised undergraduate Students in Research projects

3. Lecturer

10 January 2016- 14 March 2016

SouthEast University Bangladesh

- Taken Theory and Laboratory classes

❖ **Government Research &Development Projects**

- Determination of Caffeine, furosemide, phenolphthalein, fluoxetine, sibutramine and orlistat in Slimming Dietary Supplements.
- Formulation and Characterization of Clarithromycin Gastroretentive Floating Microspheres.
- Formulation and In Vitro Characterization of sustained release Fexofenadine HCl Microspheres using different polymeric blends by Emulsification Solvent Evaporation Method.
- Formulation and Characterization of Anti- Acne Face Wash from Local Herbal Extracts.
- Preservation Technology, Yield and Quality Characteristics of Different Jackfruit Cultivars Grown in Rajshahi Region of Bangladesh.

❖ **Accepted Developed Process**

- A process for the production of ripe jackfruit powder for instant drinks (Accepted by BCSIR-2022)

M.Sc. THESIS

Research Title: Formulation and *in-vitro* Characterization of Fexofenadine HCl loaded Polymeric Microspheres.

Supervisor: Dr. Md Selim Reza (Professor and Ex-Chairman, Department of Pharmaceutical Technology, Faculty of Pharmacy, University of Dhaka).

TEACHING EXPERIENCE

- Taught **Pharmaceutical Technology I, II and III, Biopharmaceutics I and II, Organic Chemistry I, Inorganic Chemistry I, and Pharmacology II and III** at ASA University Bangladesh.
- Taken classes on **Pharmaceutical Regulatory Affairs, Organic Chemistry, and Pharmaceutical Technology I and II** at SouthEast University.
- Supervised two B. Pharm students (ASA University), Rezvi Ahmed Bappa and Rowzatul Zannat, in their project work titled '**Evaluation of Critical Quality Attributes of Immediate Release Ciprofloxacin Tablets of Different Pharmaceutical Companies in Bangladesh**' and '**In Vitro Quality Evaluation of different Release type Paracetamol Tablets available in Bangladeshi Market**' respectively.

PUBLICATIONS

❖ JOURNAL PAPERS

1. Chakraborty D, **Arefin P**, Bhattacharjee SC, et al. Biological activity of Mesua ferrea (Nageswar) seed extracts: An in vitro and in silico study. Informatics Med Unlocked. Published online 2023:101166. doi:<https://doi.org/10.1016/j.imu.2023.101166>
2. Islam S, Moniruzzaman M, Biswas S, **Arefin P** et al. Knowledge, awareness, and socio-demographic assessment of probiotics, obesity and diabetes. Informatics Med Unlocked. 2022;33:101101. doi:10.1016/j.imu.2022.101101
3. **Arefin P**, Ahmed S, Habib MS, et al. Assessment and Comparison of Nutritional Properties of Jackfruit Seed Powder with Rice, Wheat, Barley, and Maize Flour. Curr Res Nutr Food Sci. 2022;10(2):544-552. doi:10.12944/CRNFSJ.10.2.11
4. **Arefin P**, Habib MS, Ahmed NU, et al. Allergic Rhinitis and Importance of Fexofenadine Hcl Sustained Release Microsphere As Its Treatment Approach. Int J Appl Pharm. 2022;14(1):13-17. doi:10.22159/ijap.2022v14i1.40369
5. **Arefin P**, Habib MS, Mostafa M, et al. Evaluation of the Influence of Stirring Speed on the Release Kinetics of Fexofenadine HCl Polymeric Microspheres. Biosci Biotechnol Res Asia. 2021;18(4):733-741. doi:10.13005/bbra/2955
6. **Arefin P**, Habib MS, Mostafa M, et al. Fexofenadine HCl Microspheres – Can it be the First Line Therapy for Allergic Disorders? Biosci Biotechnol Res Asia. 2021;18(4):795-799. doi:10.13005/bbra/2961
7. **Arefin P**, Habib MS, Mostafa M, et al. Evaluation of the Influence of Stirring Speed on the Release Kinetics of Fexofenadine HCl Polymeric Microspheres. Biosci Biotechnol Res Asia. 2021;18(4).
8. **Arefin P**, Habib MS, Arefin A, Arefin MS. Achieving Zero Hunger goal : Food Security in Post COVID-19 Era in Bangladesh. NAPD Dev Rev. 2021;30(November):13-24.

9. **Arefin P**, Habib S, Arefin A, Arefin S. Determination of potential sources of drug development for menstrual disorders A qualitative analysis of published literature of in-vitro rat uterus experimental studies Determination of potential sources of drug development for menstrual disorders : A qu. 2021;(July). doi:10.18231/j.ijpca.2021.010
10. **Arefin P**, Ahmed R, Habib MS, et al. Evaluation of Critical Quality Attributes of Immediate Release Ciprofloxacin Tablets of Different Pharmaceutical Companies in Bangladesh. Biosci Biotechnol Res Asia. 2021;17(4):781-788. doi:10.13005/bbra/2883
11. **Arefin P**, Habib MS, Arefin A, Arefin S. Gait Analysis for the elderly and popular designs of smart canes available in the market : A narrative review. Int J Aging Heal Mov. 2021;3(1).
12. **Arefin P**, Arefin S, Arefin A, Habib MS. Necessity of Tonsillectomy to Rule out Tonsil Carcinoma in Elderly Patients with Suspected Head and Neck Squamous Cell Carcinoma-Carcinomas of Unknown Primary : A Narrative Review. Int J Aging Heal Mov. 2021;3(2):14-19.
13. **Arefin P**, Habib S, Arefin S, Arefin A. Study on the correlation of prevalence of ocular disease to different demographic variables , medical history and concomitant diseases. East Afr Med J. 2020;45(12):3322-3330.
14. **Arefin P**, Habib MS, Chakraborty D, Bhattacharjee SC, Das S. An overview of microcapsule dosage form. Int J Pharm Chem Anal. 2020;7(4):155-160. doi:10.18231/j.ijpca.2020.025
15. **Arefin P**, Habib S, Arefin S, Arefin A. Study on the correlation of prevalence of ocular disease to different demographic variables, medical history and concomitant diseases. 2020;45(12):3322-3330.
16. **Arefin P**, Tamjid-Us-Sakib, Habib MS, Arefin A, Arefin MS. Application of CRISPR-Cas9 in novel treatment approaches A narrative review. Mymensingh Med J. Published online 2020.
17. **Arefin P**, Habib S, Arefin A, Arefin S. A review of clinical uses of bromelain and concerned purification methods to obtain its pharmacological effects efficiently. Int J Pharm Res. 2020;12(July):469-478. doi:10.31838/ijpr/2020.SP1.066
18. Arefin A, **Arefin P**, Arefin S. Study on Awareness about Food Adulteration and Consumer Rights among Consumers in Dhaka, Bangladesh. J Heal Sci Res. 2020;0(0):23-31. doi:10.18311/jhsr/0/25038
19. **Arefin P**, Habib S, Arefin A, Arefin S. A comparison of mobility assistive devices for elderly and patients with lower limb injury: Narrative Review. Int J Aging Heal Mov. 2020;2(1):13-17. doi:10.6084/m9.figshare.12318608.v1
20. **Arefin P**, Amin R, Sadiq ZA, et al. Extension of Mango Shelf life by Aloe vera Coating and Gene Expression. Bangladesh J Nutr. 2019;32(December):11-13
21. **Arefin P**, Hasan I, Islam MS, Reza MS. Formulation and In vitro Evaluation of Eudragit RL 100 Loaded Fexofenadine HCl Microspheres. Bangladesh Pharm J. 2016;19(1):58-67. doi:10.3329/bpj.v19i1.29240
22. Hasan M, Ahamed SK, Billah MM, **Arefin P** et al. New Approach for Sustained Release Dosage Form Design: Aceclofenac. Mahidol Univ J Pharm Sci . Published online 2015.

doi:10.14456/mujps.2015.12

23. Naim Z, Billah MM, Ibrahim M, **Arefin P** et al. Anti-inflammatory, analgesic and anti-nociceptive efficacy of peel of *Abelmoschus esculentus* fruits in laboratory animal. *Curr Drug ther.* 2015;10(2). doi:10.2174/157488551002151222161409
24. **Arefin P**, Hasan I, Reza MS. Design, characterization and in vitro evaluation of HPMC K100 M CR loaded Fexofenadine HCl microspheres. *Springerplus.* 2016;5(1). doi:10.1186/s40064-016-2322-2
25. **Arefin P**, Habib S, Arefin A, Arefin S. A comparison of mobility assistive devices for elderly and patients with lower limb injury: Narrative Review. *Int J Aging Heal Mov.* 2020;2(1):13-17.
26. **Arefin P**, Sakib T us, Shehan Habib M, Saha T, Bobby F. Evaluation of pH of Facial Cleansers Available in the Bangladeshi Market. *Nov Approaches Drug Des Dev.* 2020;5. doi:10.19080/NAPDD.2019.05.555660
27. Salam MA, Habib MS, **Arefin P**, et al. Effect of Temperature on the Performance Factors and Durability of Proton Exchange Membrane of Hydrogen Fuel Cell: A Narrative Review. *Mater Sci Res India.* 2020;17(2):179-191. doi:10.13005/msri/170210
28. Habib MS, **Arefin P**, Salam MA, et al. Proton Exchange Membrane Fuel Cell (PEMFC) Durability Factors, Challenges, and Future Perspectives: A Detailed Review. *Mater Sci Res India.* 2021;18(2):217-234. doi:10.13005/msri/180209
29. **Arefin P**, Amin R, As Sadiq MZ, et al. A Study of Effectiveness of Natural Coatings on the Shelf Life Extension of Tomatoes by the Observation of TomloxC Gene Expression. *Biosci Biotechnol Res Asia.* 2020;17(03):459-465. doi:10.13005/bbra/2849
30. **Arefin P.** A Review on the Ayurvedic Management of Causes and Symptoms of Bronchial Asthma. Vol 9.; 2015.

❖ CONFERENCE ATTENDANCE AND PRESENTATIONS

1. Poster Presentation on ‘**Awareness about the Presence of Harmful banned anti-obesity drugs in Slimming food products of Bangladeshi Market.**’ in ‘BCSIR Congress 2022’, organized by Bangladesh Council of Scientific and Industrial Research (BCSIR), December 1-3, 2022
2. Oral Presentation on ‘**The presence of harmful banned anti-obesity drugs in Slimming food products**’ in ‘International Conference on Environmental Protection for Sustainable Development (ICEPSD)-2022’ from 02-04 September 2022
3. Oral Presentation on ‘**Formulation and In Vitro Characterization of Sustained Release Fexofenadine HCl Microspheres using different polymeric blends by Emulsification Solvent Evaporation Method.**’ in ‘International Conference on Science and Technology (ICSTB-2021)’, organized by Bangladesh Council of Scientific and Industrial Research (BCSIR), March 11-13, 2021

4. Certification for poster presentation for '**Evaluation of pH of facial cleansers available in the Bangladeshi market**'. Paroma Arefin, Tamjid-Us-Sakib, Bangladesh Council of Scientific and Industrial Research. International Conference on Recent Advances in Chemistry (ICRAC), Organized by Department of Chemistry, Jagannath University, 07-08 February, 2020.
5. Certification of Attendance in 18th International Congress of International Society for Ethnopharmacology and 5th International Congress of Society for Ethnopharmacology, India organized by Faculty of Pharmacy, University of Dhaka (13-15 January,2018)
6. Certification of Attendance in 5th National Conference on Neem and 3rd Herbal World Expo- 2016 organized by Bangladesh Neem Foundation
7. Certification of Attendance in 4th AYUNS International Ayurvedic Conference 2016 organized by Ayurved and Naturopathy Association of Bangladesh [ayuns]

SCHOLARSHIP & AWARDS

- **Grant Details**

Project	Role	Source	Dates
Determination of Caffeine, furosemide, phenolphthalein, fluoxetine, sibutramine and orlistat in Slimming Dietary Supplements.	Project Leader	Ministry of Science and Technology, People's Republic of Bangladesh	2022-23
Formulation and Characterization of Clarithromycin Gastroretentive Floating Microspheres.	Project Leader	Ministry of Science and Technology, People's Republic of Bangladesh	2021-22
Formulation and In Vitro Characterization of sustained release Fexofenadine HCl Microspheres using different polymeric blends by Emulsification Solvent Evaporation Method	Project Leader	Ministry of Science and Technology, People's Republic of Bangladesh	2019-20

- Received 2 scholarships for academic achievements in University (2013, 2015).
- Earned NST (National Science and Technology) Fellowship, 2014 by Ministry of Science and Technology, People's Republic of Bangladesh

PROFESSIONAL TRAINING AND WORKSHOPS

❖ TRAINING

1. Certificate of Participation in **‘41st Understanding Training on ISO/IEC 17025:2017’** organized by Bangladesh Accreditation Board (21-23 June 2022)
2. Certificate of completing In House Training on **‘Dumas Protein Analyzer and Rapid Fat Analyzer’** at the Institute of Technology Transfer and Innovation (ITTI) organized by Bangladesh Council of Scientific and Industrial Research (BCSIR), October 24-28, 2021
3. Certificate of Appreciation for completion of a training course on **‘Operating and maintenance of Atomic Absorption Spectrophotometer (AAS)’** organized by BCSIR Laboratories, Chattogram, held on 01-05 November 2020.
4. Certificate of achievement for the training course on **‘Application and Operation Training on Ion Chromatography’** organized by BCSIR Laboratories, Chattogram, held on 20-26 August 2020.
5. Certification of Appreciation for a training program on **‘Liquid Chromatography-Mass-Mass Spectrometer (LC-MS-MS): Principles, Operation and Data Analysis’** Organized by BCSIR Laboratories, Rajshahi, held on 16-20 February 2020
6. Certification of Appreciation for a training program on **‘High Performance Liquid Chromatography: Principles, Operation and Data Analysis’** Organized by NITUB Laboratories, Rajshahi, held on 16-20 February 2020
7. Certification of Appreciation for a training program on **‘Use, Maintenance, and troubleshooting of High Performance Liquid Chromatography (HPLC)’** Organized by NITUB Laboratories, Rajshahi, held on 26-31 December 2016

❖ WORKSHOP AND WEBINARS

1. Certificate for attending **‘Chemical Security Training for Chemical and Pharmaceutical Industry in Bangladesh’** organized by **CRDF Global** (15-17 March 2022)
2. Certificate for attending **‘Open-Source Research for Advanced Know-Your-Customer (KYC)/Customer Due Diligence (CDD) Workshop’** Sponsored by the **U.S. Department of State’s Chemical Security Program** (May 11-13, 2022)
3. Certification of Participation in **‘Workshop on the Response of BCSIR to 4th Industrial Revolution’** in Bangladesh Council of Scientific and Industrial Research (BCSIR) on December 26, 2021
4. Certification of Attendance for attending a seminar on **‘How to prepare your manuscripts for publication in top journals’** organized by www.brighttalk.com held on July 4, 2020

5. Certificate for attending PacBio APAC Webinar by Dr. Adam Ameer of SciLifeLab **SMART Sequencing Applications for Human Genomics and Medicine** held on July 8, 2020.
6. Certification of Participation in the International Webinar on '**COVID-19: Facts and Its Diagnosis by RT-PCR**' organized by PG Department of Botany, The New College, Chennai, India on Aug 7, 2020.
7. Certificate of Participation in the webinar on '**Research Writing**' Organized by PerSec Research held on 03 Oct 2020

PROFESSIONAL MEMBERSHIP

- Life member in Network of Instrument Technical personnel and User scientists of Bangladesh (**NITUB**) – Membership number - LM 173