

Curriculum Vitae

Name : **Dr. Dipa Islam**
Present Status : Principal Scientific Officer (PSO)
Mailing Address : Health and Nutrition Research Division, Biomedical and Toxicological Research Institute(BTRI), Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh.
Nationality : Bangladeshi



Field of Specialization: Food Science, Food Technology, Applied Nutrition, Biomedical Science

Academic Background:

- Jahangirnagar University - Savar, Bangladesh
Doctor of Philosophy (PhD) in Biochemistry and Molecular Biology, 07/ 2013-06/2019
- Islamic University- Kushtia , Bangladesh
Bachelor of Science in Applied Nutrition and Food Technology (ANFT), 07/1998 – 06/2004
- Islamic University- Kushtia , Bangladesh
Masters of Science in Applied Nutrition and Food Technology (ANFT), 02/2004 – 06/2006

Professional Experience:

- Principal Scientific Officer and lab- in-charge 9/2023 to present – Health and Nutrition Research Division, Biomedical and Toxicological Research Institute(BTRI), Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh.
- Senior Scientific Officer and lab- in-charge 07/2012 to 9/2023 – Health and Nutrition Research Division, Biomedical and Toxicological Research Institute(BTRI), Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh.
- Director (in-Charge), Biomedical and Toxicological Research Institute(BTRI), BCSIR – 11/2019 to 03/2020
- Scientific Officer, 06/2006 to 07/2012 -Institute of Food Science and Technology (IFST), Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh.

List of publications:

1. **Dipa Islam**, Monisha Banerjee Shanta, Samina Akhter, Chadni Lyzu, Mahmuda Hakim, Md Rezuhanul Islam, Liton Chandra Mohanta, Evena Parvin Lipy, Dipankar Chandra Roy. Cardioprotective effect of garlic extract in isoproterenol-induced myocardial infarction in a rat model: assessment of pro-apoptotic caspase-3 gene expression
Clinical Phytoscience 6, 1-9, 2020
2. **Dipa Islam**, Amdadul Huque, Liton Chandra Mohanta, Sadhan Kumar Das, Abida Sultana, Evena Parvin Lipy, UK Prodhon. Hypoglycemic and hypolipidemic effects of Nelumbo nucifera flower in Long-Evans rats
Journal of Herbmmed Pharmacology 7 (3), 148-154, 2018
3. **Dipa Islam**, Amdadul Huque, Liton Chandra Mohanta, Evena Parvin Lipy, Md Nazibur Rahman, Abida Sultana, UK Prodhon. Studies on the hypoglycemic and hypolipidemic effects of Nelumbo nucifera leaf in long-evans rats
Journal of Diabetes Mellitus 7 (03), 55-70, 2017
4. Goutam Kumar Kundu, Mohammad Alauddin, Mosammat Salma Akter, Mohammad Shahneawz Khan, Md Monirul Islam, Gouri Mondal, **Dipa Islam**, Liton Chandra Mohanta, Amdadul Huque. Metal contamination of commercial fish feed and quality aspects of farmed tilapia (*Oreochromis niloticus*) in Bangladesh.
Bioresearch Communications-(BRC) 3 (1), 345-353, 2017
5. **Dipa Islam**, Nazia Nawshad Lina, Rajib Kanti Roy, Chadni Lyzu, Zubayed Ahamed, Samina Akhter, Liton Chandra Mohanta, Evena Parvin Lipy, Mahmuda Hakim, Dipankar Chandra Roy. Relative proximate composition and mineral analysis of three garlic varieties available in Bangladesh
European Journal of Medicinal Plants 31 (9), 1-9, 2020
6. Sajib Aninda Dhar, Rashedul Alam Chowdhury, Shaon Das, Md Khalid Nahian, **Dipa Islam**, Md Abdul Gafur. Plant-mediated green synthesis and characterization of silver nanoparticles using *Phyllanthus emblica* fruit extract.
Materials Today: Proceedings 42, 1867-1871, 2021
7. **Dipa Islam**, Afsana Akter, Amdadul Huque, Samina Akhter, Dipankar Chandra Roy, Chadni Lyzu, Mahmuda Hakim, Liton Chandra Mohanta, Evena Parvin Lipy, Md Abubakkar Siddique, Khan Md Murtaja Reza Linkon, Md Nazibur Rahman. Hypoglycemic effect study of a combination of some stipulated spices in alloxan induced diabetic wistar albino rats along with nutritional value evaluation
Journal of Diabetes Mellitus 8 (02), 43-53, 2018
8. Evena Parvin Lipy, Mahmuda Hakim, Liton Chandra Mohanta, **Dipa Islam**, Chadni Lyzu, Dipankar Chandra Roy, Iffat Jahan, Samina Akhter, Mohammad Raknuzzaman, Md Abu Sayed. Assessment of heavy metal concentration in water, sediment and common fish species of Dhaleshwari River in Bangladesh and their health implications.
Biological Trace Element Research 199, 4295-4307, 2021

9. Suravi Islam, Nazia Khatun, Md Shehan Habib, Syed Farid Uddin Farhad, Nazmul Islam Tanvir, Md Aftab Ali Shaikh, Samia Tabassum, **Dipa Islam**, Md Sajjad Hossain, Ayesha Siddika. Effects of yttrium doping on structural, electrical and optical properties of barium titanate ceramics
Heliyon 8 (9), 2022
10. Subbroto Kumar Saha, Md Ezazul Haque, **Dipa Islam**, Md Matiar Rahman, Md Rezuanul Islam, Anzana Parvin, Shahedur Rahman. Comparative study between the effect of Momordica charantia (wild and hybrid variety) on hypoglycemic and hypolipidemic activity of alloxan induced type 2 diabetic long-evans rats
Journal of Diabetes Mellitus 2 (01), 131-137, 2012
11. Rafiquel Islam, Dipak Kumar Paul, Atiqur Rahman, Tanzima Parvin, **Dipa Islam** and Abdus Sattar. Comparative characterization of lipids and nutrient contents of Pangasius pangasius and Pangasius sutchi available in Bangladesh
J Nutr Food Sci 2 (2), 1-6, 2012
12. Md Monarul Islam, Rashedul Islam, SM Mahmudul Hassan, Md Rezaul Karim, Mohammad Mahbubur Rahman, Shofiur Rahman, Md Nur Hossain, **Dipa Islam**, Md Aftab Ali Shaikh, Paris E Georghiou. Carboxymethyl chitin and chitosan derivatives: synthesis, characterization and antibacterial activity
Carbohydrate Polymer Technologies and Applications 5, 100283, 2023
13. Mosharof Hossain, Lipiar Khan Mohammad Osman Goni, Nuzhat Muntaha, Mohammad Shah Jamal, Shah Mohammad Asaduzzaman Sujon, Shamim Ahmed, **Dipa Islam**, Riyadh Hossen Bhuiyan, Abu Naieum Muhammad Fakhruddin. Box–Behnken design-based optimization for biodiesel production from waste cooking oil using Mahogany (Swietenia macrophylla) fruit shell derived activated carbon as a heterogeneous base catalyst.
Reaction Kinetics, Mechanisms and Catalysis 133 (1), 117-138, 2021
14. Farhana Muznebin, Hamida Khanum, Zaibun Nessa, **Dipa Islam**. Endoparasitic Infection in Laboratory Rat Strain, Long-Evans (Rattus norvegicus Berkenhout, 1769)
Bangladesh Journal of Scientific and Industrial Research 44 (1), 109-116, 2009
15. Md Kamrul Islam, Md Abu Rayhan, Mst Afifa Khatun, **Dipa Islam**, Md Nazibur Rahman. Effect of raw and repeatedly fried mustard oil intake on metabolic and organ histological changes in Wistar rat
Journal of food biochemistry 44 (2), e13120, 2020
16. M Omar Faruq Mridha, Parvin Noor, Rahima Khaton, Dipa Islam, Motaher Hossain. Effect of Spirulina platensis on lipid profile of long evans rats
Bangladesh Journal of Scientific and Industrial Research 45 (3), 249-254, 2010
17. Mosharof Hossain, Nuzhat Muntaha, Lipiar Khan Mohammad Osman Goni, Mohammad Shah Jamal, Mohammad Abdul Gafur, **Dipa Islam**, Abu Naieum Muhammad Fakhruddin. Triglyceride Conversion of Waste Frying Oil up to 98.46% Using Low Concentration K⁺/CaO Catalysts Derived from Eggshells
ACS omega 6 (51), 35679-35691, 2021

18. Liton Chandra Mohanta, Md Nazmul Hasan Niloy, Gawsia Wahidunnessa Chowdhury, **Dipa Islam**, Evena Parvin Lipy. Heavy metals in water, sediment and three fish species of Dhaleshwari river, Savar Bangladesh Journal of Zoology 47 (2), 263-272, 2019
19. Ezazul Haque, Subbroto Kumar Saha, **Dipa Islam**, Rezuatul Islam. Comparative study between the effect of *Coccinia Cordifolia* (leaf and root) powder on hypoglycemic and hypolipidemic activity of alloxan induced type2 diabetic Long-Evans rats Journal of Diabetes and Endocrinology 3, 37-43, 2012
20. Md Abu Rayhan, Md Kamrul Islam, Mst Afifa Khatun, **Dipa Islam**, Md Nazibur Rahman. Remedial role of exercise training to deep-fried oil-induced metabolic and histological changes in Wistar rats Journal of Food Biochemistry 44 (11), e13458, 2020
21. Dipika Rani Bhowmik, Aninda Nafis Ahmed, MA Gafur, Muhammed Yusuf Miah, **Dipa Islam**. Effect of Process Variables on Deposited Cupric Oxide Thin Film by Sol-Gel Spin Coating Technique IOP Conference Series: Materials Science and Engineering 438 (1), 012001, 2018
22. Dipankar Chandra Roy, Samina Akhter, Ashish Kumar Sarker, M.M. Kamal Hossain, Chadni Lyzu, Liton Chandra Mohanta, **Dipa Islam**, Md. Anwar Arfien Khan. Tracing the Pig and Cattle Origin in Processed Food and Feed Products Targeting Mitochondrial 12S rRNA Gene Journal of food quality and hazards contro 18 , 152-161, 2021
23. A Comparative Study on the Proximate Composition and Nutrient Analysis of Three Varieties of Pine Apples (*Annanas Comosus*) Grown In Bangladesh **D Islam**, A Akand, A Rahman IOSR Journal of Environmental Science, Toxicology and Food Technology 11 (06 ...
24. Monika Mahmud, Md Sahadat Hossain, Mashrafi Bin Mobarak, Md Saiful Quddus, Muhammad Shahriar Bashar, Umme Sarmeen Akhtar, Shirin Akter Jahan, **Dipa Islam**, Samina Ahmed. Engineering GO@ Zn–Hap@ CA porous heterostructure for ultra-fast and ultra-high adsorption efficacy: investigation towards the remediation of chromium and lead Environmental Science: Advances 1 (5), 827-848, 2022
25. **Dipa Islam**, Evena Parvin Lipy, Samiur Rahman, Liton Chandra Mohanta, Khaledun Nahar Babi. Comparative study between the effect of *Momordica charantia* (wild type) fruits and *Coccinia cordifolia*'s leaf on hypoglycemic and hypolipidemic activities of alloxan Journal of Diabetes Mellitus 4 (02), 115-123, 2014
26. Muhammad Rubaiat Hasan, Rahim Abdur, Md Ashraful Alam, Shahin Aziz, Asaduzzaman Sujan, **Dipa Islam**, Mohammad Shah Jamal, Mosharof Hossain.+ Exploring the effects of different parameters on the incorporation of K ions in eggshell derived CaO reveals highly variable catalytic efficiency for biodiesel conversion South African Journal of Chemical Engineering 47 (1), 67-74, 2024
27. Liton Chandra Mohanta, Amdadul Huque, **Dipa Islam**, Dipankar Chandra Roy, Mahmuda Hakim, Samina Akhter, Chadni Lyzu, Evena Parvin Lipy, Md Rafiqun Nabi. Accumulation of heavy metals in long-evans rat through feeding fishes of Buriganga river and their histopathological evaluation Biological Trace Element Research 201 (8), 3928-3940, 2023

28. Nazia Nawshad lina, **Dipa Islam**, Dipankar Chandra Roy and Rajib Kanti Roy. 2019. Phytochemical Screening and Evaluation of Cardioprotective Activity of Three Garlic Varieties through Caspase3 Gene Expression. 32nd BSM Annual Conference 2019 on Trends in Microbiology for Sustainable Agroecological Development. ID: O-2019-016
29. Chadni Lyzu, Saikat Mitra, Kahkashan Perveen, Zidan Khan, Abu Montakim Tareq, Najat A Bukhari, Fohad Mabood Husain, Evena Parvin Lipy, **Dipa Islam**, Mahmuda Hakim, Talha Bin Emran, Marjan Ganjali Dashti. Phytochemical profiling, antioxidant activity, and in silico analyses of Sterculia villosa and Vernonia patula
Evidence-Based Complementary and Alternative Medicine 2022, ID 3190496, 2022
30. Md Abdulla-Al-Mamun, Bashudev Sarker, Dipa Islam, Asma Rahman. Novel Vegetable Tanning Techniques by Notholithocarpus densiflorus Extract and Fatliquoring with Indigenous Bovine Fat
Textile Leather and review 6,78-97,2023
31. Muhammad Saiful Islam, Zahidul Islam, **Dipa Islam**. Abundance, Source Apportionment, and Surface Characteristics of Microplastics in Agricultural Soil in a Flood-Prone Area of Central Bangladesh
Water, Air, & Soil Pollution 235 (3), 1-16, 2024
32. Humayun Iqbal, Arup Bhowmik, Sabina Yasmin, Shahin Aziz, Dipa Islam, Mohammad Shah Jamal, Mosharof Hossain. Investigation of electrode combinations in electricity generation from the pulp and paper industry wastewater
Research Square, <https://doi.org/10.21203/rs.3.rs-2167210/v1>, 2022
33. Saiful Islam Khana, **Dipa Islam**, Khadija Bilkis, Mahmuda Hakim, Evena Parvin Lipy, Liton Chandra Mohanta, Md Zahurul Haque. Synthesis of atorvastatin substituted diamine and their corresponding isatin schiff bases as antibacterial and cytotoxic agent
Iranian journal of organic chemistry 10(2) 2379-2316, 2018

Oral Presentation in International Conference:

- 1) BCSIR Congress-2023, with the theme '**Smart Bangladesh of Tomorrow is the Science of Today**' being organised by BCSIR, Bangladesh on 08-10 March 2024.
- 2) International Conference on Science and Technology (ICSTB-2021) with central theme "Innovation for Tomorrow" being organised by BCSIR, Bangladesh on 11-13 March 2021.
- 3) International Conference on Environmental Protection for Sustainable Development (ICEPSD-2022)

Special Contribution:

Founding member of Biomedical and Toxicological Research Institute (BTRI). It's a state of arts equipped modern research institute in Bangladesh Council of Scientific and Industrial Research (BCSIR) under the Ministry of Science & Technology (MOST) of Bangladesh. It has established in 11/2019.

International Training on Modern Scientific Instrument Training:

- Application training on Field Emission Scanning Electron Microscope (FESEM), 2017 - Jeol (Malaysia) SDN.BHD, Malaysia
- Training on 7500qPCR & ABI 3500 DNA Sequencer, 2016 - Thermo Fisher Scientific, India
- Training on Ultra Fast Liquid Chromatography (UPLC), 2015 – Agilent, Waldbronn, Germany

Experience on Conducting ADP (Annual Development Project) of Ministry of Science and Technology (MOST) Of Bangladesh:

Project on Modernization of Animal Laboratory for Biomedical and Toxicological Research, 07/2012 to 06/2016 – Project Director .

Experience on Conducting Special Allocation Project of Ministry of Science and Technology (MOST) Of Bangladesh:

- Project on “Evaluation of indigenous spices as cardioprotective remedy through gene (Bax, Bcl2, IL-6, TNF- α & Casp3 gene) expression regulation” Duration: 07/2021 to 06/2022 - Principle Investigator.
- Project on “Development of facilities to the Animal Research Section for testing toxic substance in food, feed and food supplements.” Duration: 07/2011 to 06/2012 - Principle Investigator.
- Project on Toxicity and safety test of foods, feed and medicine by using laboratory animals 07/2010 to 06/2011 - Principle Investigator.

Provided Thesis Guidance:

MS Thesis Guidance – 30 students

ID Links:

Google Scholar : <https://scholar.google.com/citations?user=TfOAcwAAAAJ&hl=en>

ORCID ID: orcid.org/0000-0003-3769-6999

ResearchGate:

https://www.researchgate.net/profile/DipaIslam?ev=hdr_xprf&_sg=m48x9hIEwDCHsrXdM3rMSGJz6hAcbkymNQ0fu2Kkk10mlJoHqR2qatTk1fDkXmoW274oMUbAo0wa_MTbukHu8KZ1

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