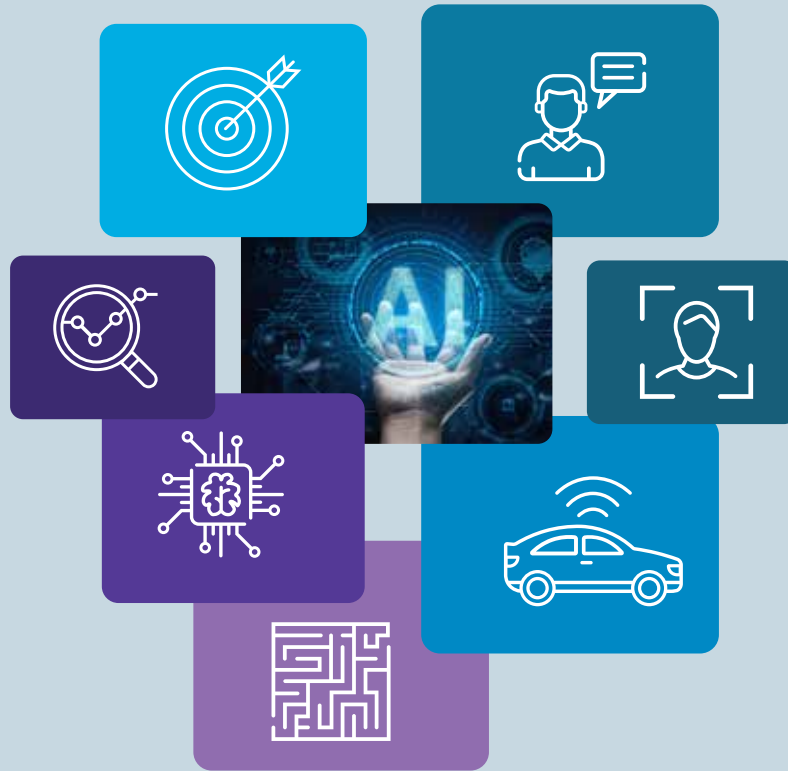


6th YOUNG SCIENTIST CONGRESS

YOUNG SCIENTISTS FOR ARTIFICIAL INTELLIGENCE



04-05 April 2026

Venue :
National Science & Technology Complex
Agargaon, Dhaka, Bangladesh

Organized by

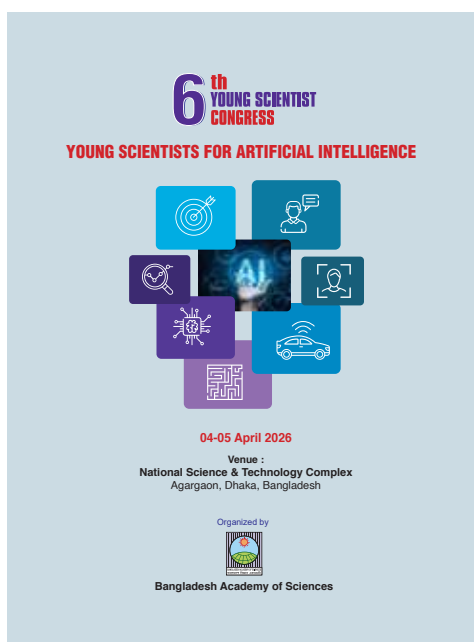


Bangladesh Academy of Sciences

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Bangladesh Academy of Sciences

ACKNOWLEDGEMENTS



Ministry of Science and Technology
Government of the People's Republic of Bangladesh



National Museum of Science and Technology



Incepta Pharmaceuticals Ltd



ACI Limited



**DRUG
INTERNATIONAL
LIMITED**



THE IBN SINA TRUST
Pioneer in Health Care



**Minister**

Ministry of Science and Technology
Government of the People's Republic of Bangladesh

Message

The rapidly growing technology of Artificial Intelligence (AI) are among the major driving forces of development all over the world now a days. The technology is touching almost every sphere of life solving many problems as well as creating new challenges. The development of Bangladesh is critically dependent on effective and sustainable use of AI. Science, technology and innovation (STI), in general, are the main propellers to find the solutions to the problems faced by the country and the role of the next generation professionals is central in this regard. Under this context, I am extremely happy to learn that the Bangladesh Academy of Sciences (BAS), as a part of its annual series of Congress, is going to organize the 6th Young Scientist Congress with the highly relevant theme 'Young Scientists for Artificial Intelligence'.

The Government of Bangladesh, led by the Honorable Prime Minister Tarique Rahman, has given high importance to STI in its developmental planning. This is reflected in the recent planning documents as well as in the public declarations of the Government. Bangladesh is committed to promote STI in alignment with the regional and international initiatives and policies in this regard.

To realize the commitment for AI in particular and STI in general, scientific evidence is a vital necessity and events like the present Congress are one of the key sources to provide those input. I am optimistic that a number of valuable suggestions and recommendations will be generated from the present Congress participated by the Experts, young scientists and other stakeholders in the relevant fields.

I wish a Great Success to the 6th Young Scientist Congress.

Fakir Mahbub Anam, MP



Secretary

Ministry of Science and Technology
Government of the People's Republic of Bangladesh

Message

I am delighted that the Bangladesh Academy of Sciences continues to organize its annual Congress dedicated to young scientists. This year's theme, 'Young Scientists for Artificial Intelligence,' is both timely and relevant as Bangladesh strives to accelerate its economic and social development, with science, technology, and AI playing a pivotal role.

I am encouraged by the participation of distinguished experts from across the country, along with expatriate professionals contributing their knowledge and experience. I am confident that the Congress will generate valuable insights and recommendations to support informed policy-making in science and technology, both nationally and regionally.

I wish the Congress every success.

Md Anwar Hossain



বাংলাদেশ
বিশ্ববিদ্যালয় মঞ্জুরী কমিশন

Chairman

The University Grants Commission of Bangladesh

Message

I am delighted to learn that the 6th Young Scientist Congress (YSC6) is set to be held in Dhaka on 04-05 April 2026. The selection of the theme, 'Young Scientists for Artificial Intelligence,' is both timely and visionary. I warmly congratulate the organizers for choosing a theme that reflects the transformative power of science and technology in shaping the future of nations.

It is widely acknowledged that science and technology are the principal drivers of sustainable development, and Artificial Intelligence has emerged as a transformative force in this regard. This is particularly significant for developing countries like Bangladesh, where innovation and knowledge-based growth are essential to achieving long-term national aspirations. I am confident that this Congress will provide a dynamic platform for meaningful dialogue, knowledge exchange, and collaboration among young scientists, researchers, professionals, and policymakers from across the country.

Bangladesh is currently undergoing a profound and forward-looking transformation, guided by the principles of equality, human dignity, and social justice. In this important journey, the University Grants Commission of Bangladesh (UGC), as the apex regulatory body and guardian of higher education and research, remains steadfast in its commitment to promoting academic excellence, innovation, and research-driven development.

The UGC will extend its fullest support in implementing the constructive recommendations and actionable insights emerging from this Congress, with a view to further strengthening the country's higher education and research ecosystem.

I wish the 6th Young Scientist Congress (YSC6) every success. May it inspire a new generation of young minds to harness the immense potential of science and Artificial Intelligence for the greater good of humanity and national progress.

Professor Dr Mamun Ahmed



Director General
National Museum of Science and Technology

Message

Science, Technology and Innovation (STI) constitute the cornerstone of sustainable socioeconomic development in the contemporary world. In the era of the Fourth Industrial Revolution, Artificial Intelligence (AI) has emerged as a transformative force, reshaping industries, knowledge systems, and human interactions. In this context, organizing the 5th Young Scientist Congress 2026 under the theme “Young Scientists for Artificial Intelligence” is both a timely and visionary initiative.

Bangladesh places high strategic importance on the advancement of science and technology to achieve the Sustainable Development Goals (SDGs). The National Museum of Science and Technology (NMST), as a leading institution for science communication and informal education, plays a pivotal role in promoting scientific literacy, fostering innovation, and inspiring curiosity—particularly among the younger generation. With a forward-looking approach, NMST remains committed to strengthening its engagement in emerging domains, especially Artificial Intelligence and other frontier technologies.

I am delighted that the Bangladesh Academy of Sciences has been consistently organizing this distinguished annual congress over the past five years. The convergence of eminent scientists, researchers, and policy planners on this platform creates a unique opportunity for intellectual exchange, interdisciplinary dialogue, and collaborative advancement. I firmly believe that such engagements will significantly contribute to accelerating progress in science, technology, and innovation.

I sincerely hope that this Congress will generate impactful insights and actionable recommendations, which will guide our national development trajectory towards a knowledge-based and technologically advanced future.

I wish great success of this Congress.

Munira Sultana, ndc

ORGANIZING COMMITTEE**Chair**

Maj Gen (Retd) Prof Dr ASM Matiur Rahman

Members

Prof Dr ZN Tahmida Begum	Prof Dr Yearul Kabir
Prof Dr Shariff Enamul Kabir	Prof Dr Chowdhury Rafiqul Ahsan
Prof Dr Haseena Khan	Prof Dr M Tofazzal Islam
Prof Dr Md Abdur Rashid	Dr Aliya Naheed
Prof Dr Md Abdul Alim	Prof Dr Hasan Mahmud Reza

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Prof Dr Liaquat Ali

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 Prof Dr M Feroze Ahmed
 Prof Dr M Jahiruddin
 Prof Dr Md Anwar Hossain
 Dr Aliya Naheed

Chair

Prof Dr ZN Tahmida Begum

Members

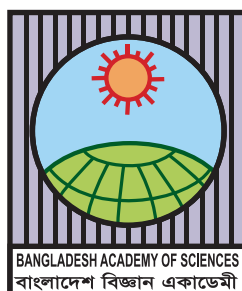
Prof Dr Zeba Islam Seraj
 Prof Dr Md Abu Bin Hasan Susan
 Prof Dr Kazi Matin Uddin Ahmed
 Prof Dr Hasan Mahmud Reza
 Prof Dr Emdadul Haque Chowdhury
 Prof Dr Mohammed Almujaaddade Alfasane
 Dr Md Shamsuzzoha Bayzid

FINANCE, LOGISTICS & ENTERTAINMENT COMMITTEE**Chair**

Prof Dr Shariff Enamul Kabir

Members

Prof Dr Md Abdul Alim	Prof Dr Quazi Deen Mohammad
Prof Dr M Tofazzal Islam	Prof Dr Md Mamun Molla
Prof Dr Md Atiar Rahman	Prof Dr Kamrun Nahar
Prof Dr Md Shahdat Hossain	Prof Dr Shaikh Jamal Uddin

ORGANIZER**BANGLADESH ACADEMY OF SCIENCES (BAS)**

The Bangladesh Academy of Sciences (BAS) is the highest professional organization of the country formed with scientists having outstanding performance and achievement at home and abroad. The Academy has been working for promotion of excellence in science education, research, capacity building and professionalism for the sustainable development of Bangladesh since 1973. It represents Bangladesh to the scientific community of the world. It functions as a think-tank to advise the Government on scientific matters of national and international importance.

The Academy disseminates scientific knowledge among the people through holding conferences, symposia, seminars, workshops, lectures on scientific topics of national and international importance.

For further details, please visit <http://www.bas.org.bd>

6TH YOUNG SCIENTIST CONGRESS

04-05 APRIL 2026

PROGRAM

Venue : **National Science and Technology Complex**
Agargaon, Dhaka 1207, Bangladesh

04 April 2026 Saturday

08:00-17:00 : **Registration**

09:00-10:00 : **INAUGURAL CEREMONY (Venue: Auditorium)**

Chairperson : **Prof Dr ZN Tahmida Begum**
Vice-President, Bangladesh Academy of Sciences

Telawat-e-Quran

Address of Welcome by **Maj Gen (Retd) Prof Dr ASM Matiur Rahman**
Chairperson, Organizing Committee, 6th YSC

Introduction to BAS by **Prof Dr Yearul Kabir**
Secretary, Bangladesh Academy of Sciences

Address by the Special Guest, **Prof Dr Mamun Ahmed**
Chairman, The University Grants Commission of Bangladesh

Address by the Chief Guest, **Mr Fakir Mahub Anam, MP**
Honorable Minister, Ministry of Science and Technology, Government of the People's Republic of Bangladesh

Address by the Chairperson, **Prof Dr ZN Tahmida Begum**
Vice-President, Bangladesh Academy of Sciences

Vote of thanks by **Prof Dr Liaquat Ali**

Organizing Secretary, 6th YSC

10.00-10.40 : **THEME LECTURE (Venue: Auditorium)**

YOUNG SCIENTISTS FOR ARTIFICIAL INTELLIGENCE

Chair : **Prof Dr ZN Tahmida Begum (BAS)**

Speaker : **Dr Ehsan Hoque**
Professor of Computer Science, University of Rochester, New York, USA
Showing Up: An Unconventional Path Through AI and Why Discipline Beats Talent

10.40-11.00 : **Refreshment**

THE THEME SPEAKER

**Prof Dr Ehsan Hoque**

Ehsan Hoque earned a B.S. from Penn State, an M.S. from the University of Memphis, and a Ph.D. from MIT (2013). He is a tenured Professor of Computer Science at the University of Rochester, where he co-leads the ROC HCI Lab.

His research builds AI systems for health and human behavior, published in Nature, New England Journal of Medicine AI, and Proceedings of the National Academy of Sciences (PNAS) Nexus, and licensed by Microsoft to develop Presenter Coach in PowerPoint, now used by millions worldwide.

He currently leads AI initiatives for one of the leading ministries of the Kingdom of Saudi Arabia, and previously served as Chief Scientist at the Saudi Data and AI Authority (SDAIA) - the AI ministry for Saudi Arabia.

His honors include the Presidential Early Career Award for Scientists and Engineers (PECASE, 2025) - the highest honor the U.S. government bestows on early-career scientists - the MIT TR35 Award, NSF CAREER Award, and ACM UbiComp 10-Year Impact Award. He is a Fellow of the American Institute for Medical and Biological Engineering (AIMBE), an Emerging Leader in Health and Medicine by the National Academy of Medicine, and a member of the National Academies Health Sciences Policy Board.

- 1.00-11.35 : **PLENARY LECTURE SESSION I (Venue: Auditorium)**
 Chair : **Prof Dr M Feroze Ahmed (BAS)**
 PL01. **Prof Hasan Sarwar**
School of Science and Engineering, United International University, Dhaka, Bangladesh
 Human Intelligence vs Artificial Intelligence
- 11.35-13.15 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION I (PARALLEL) - HALL A**
Biological and Agricultural Sciences
 Chairs : **Prof Dr M Jahiruddin (BAS)**
Prof Dr Mohammed Almujaadde Alfasane (BAS)
- 11.35-12.00 : IL 01. **Professor Dr Md Tofazzal Islam**
Institute of Biotechnology and Genetic Engineering (IBGE), Gazipur Agricultural University, Gazipur, Bangladesh
 AI-driven decoding of host-microbe interactions for CRISPR-edited climate-smart wheat
- 12.00-12.15 : OP 01. **Md Golzar Hossain¹, Keiji Ueda²**
¹*Department of Microbiology and Hygiene, Bangladesh Agricultural University, Mymensingh, Bangladesh;* ²*Division of Virology, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, Japan*
 Regulating hepatitis b virus replication through endoplasmic reticulum stress modulation
- 12.15-12.30 : OP 02. **Muhammad Badrul Alam Shaheen¹, Wahidul Abrar¹, Md Mahiuddin Zahangir², Md Shahjahan¹**
¹*Laboratory of Fish Ecophysiology, Department of Fisheries Management, Bangladesh Agricultural University, Mymensingh, Bangladesh;* ²*Department of Fish Biology and Biotechnology, Chittagong Veterinary and Animal Sciences University, Chittagong, Bangladesh*
 Effects of temperature on growth performance and physiological responses in Asian seabass, *Lates calcarifer*
- 12.30-12.45 : OP 03. **Sabbir Khan¹, M Nazmul Hoque¹, Shuvo Singha², Chiara Gini⁴, Paola Cremonesi⁵, Munawar Sultana⁶, Gerrit Koop^{3,7}, Md. Mizanur Rahman^{3,8}, Ylva Persson^{3,9}, Fabrizio Cecilian^{3,10}**
¹*Molecular Biology and Bioinformatics Laboratory, Department of Gynecology, Obstetrics, and Reproductive Health, Gazipur Agricultural University, Gazipur, Bangladesh;* ²*Programme for Emerging Infections, Infectious Diseases Division, the International Centre for Diarrhoeal Disease Research (icddr), Dhaka, Bangladesh;* ³*Udder Health Bangladesh, Chattogram, Bangladesh;* ⁴*Department of Animal Science, North Carolina State University, Raleigh, NC, USA;* ⁵*Institute of Agricultural Biology and Biotechnology, National Research Council, Lodi, Italy;* ⁶*Department of Microbiology, University of Dhaka, Dhaka, Bangladesh;* ⁷*Sustainable Ruminant Health, Department of Population Health Sciences, Faculty of Veterinary Medicine, Utrecht University, Utrecht, The Netherlands;* ⁸*Department of Medicine and Surgery, Chattogram Veterinary and Animal Sciences University, Chattogram, Bangladesh;* ⁹*State Veterinarian, Swedish Veterinary Agency, Uppsala, Sweden;* ¹⁰*Department of Veterinary Medicine and Animal Sciences, Università degli Studi di Milano, Lodi, Italy*
 Comparative bacteriome diversity and composition in quarter and bulk milk in water buffalo (*Bubalus bubalis*) in Bangladesh

- 12.45-13.00 : OP 04. **Md Nazmus Salehin**, Maruf Ahmed
Department of Food Processing and Preservation, Hajee Mohammad Danesh Science and Technology University, Bangladesh
 Biosynthesis and diverse bioactivity of glycosylated oxygenated polyene analogues derived from *Bacillus* species
- 13.00-13.15 : OP 05. **Nishat Tasnim Safa**, Abdul Kaium Tuhin, Hasan Muhammad Abdullah
Department of Agroforestry and Environment, Gazipur Agricultural University, Gazipur, Bangladesh
 Integrating uav based multispectral imaging and dssat crop modeling to support climate-smart wheat production under late sowing conditions
- 11.35-13.15 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION II (PARALLEL) - HALL B**
Physical, Chemical, Natural Resource and Environmental Sciences
- Chairs : **Prof Dr Md Abu Bin Hasan Susan** (BAS)
Prof Dr MA Hasnat (BAS)
- 11.35-12.00 : IL 02. **Prof Dr Md Zaved Hossain Khan**
Professor and Chairman, Dept of Chemical Engineering, Jessore University of Science and Technology, Jessore, Bangladesh
 Smart nano-biotechnology for future drug delivery
- 12.00-12.15 : OP 06. **Md Abdur Razzaque Sarker**, Md Mohyminul Haq Joarder
Department of Physics, University of Rajshahi
 Synthesis and characterization of spinel Fe_2O_4 crystals for device applications
- 12.15-12.30 : OP 07. **Md Mahadee Hasan Rony**¹, Mohammad Kamruzzaman², M G Mostofa Amin¹
¹*Department of Irrigation and Water Management, Bangladesh Agricultural University, Mymensingh, Bangladesh;* ²*Farm Machinery and Postharvest Technology Department, Bangladesh Rice Research Institute, Gazipur, Bangladesh*
 Assessing the climate change impacts on boro rice production in the Barind region of Bangladesh using the dssat model
- 12.30-12.45 : OP 08. **T Majumder**, FF Arthi, JF Ishita¹, MJ Kobra
Nuclear Science Research Lab, Department of Physics, University of Rajshahi, Rajshahi
 Comparative study of double-differential nucleon emission in proton-induced reactions using talys
- 12.45-13.00 : OP 09. **Pushpa Paul**, Md. Annur Sadman, S Shaharuj Jaman Shihab, Shazid Md. Sharker
Department of Pharmaceutical Sciences, School of Health and Life Science, North South University, Dhaka, Bangladesh
 Mouse serum albumin-coated paclitaxel-loaded gelatin nanoparticles for stealth targeted cancer therapy

- 13.00-13.15 : OP10. **Md Romjan Ali**, Md Rafikul Islam
Department of Chemistry, Dhaka University of Engineering & Technology, Gazipur, Bangladesh
Investigation of the aggregation behavior of tetradecyltrimethylammonium bromide with levofloxacin hemihydrate: effects of hydrotropes on the physico-chemical parameters
- 11.35-13.15 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION III (PARALLEL) - HALL C**
Mathematical, Engineering and Computer Sciences
- Chairs : **Prof Dr Md Abdul Alim** (BAS)
Prof Dr Abu BinImran (BAS)
- 11.35-12.00 : IL 03. **Dr Suvash C Saha**
School of Mechanical and Mechatronic Engineering, University of Technology Sydney (UTS), Ultimo, NS, Australia
Breathing a mixed particle soup: Computational and AI Models of microplastic–pollutant deposition in human airways
- 12.00-12.15 : OP 11. **Md Faisal Ahmed**
Department of Behavioral Sciences, Bangladesh Institute of Innovative Health Research, Mirpur, Dhaka, Bangladesh
Neural signatures of auditory and visual processing: an EEG analysis using the mne sample dataset
- 12.15-12.30 : OP 12. Jewel Hossen, **AKM Bayazid Biswas**, Md Mosfiqur Rahman Maruf
Dept of Chemistry, Rajshahi University of Engineering & Technology, Rajshahi, Bangladesh
Molecular-level investigation of antioxidant activity of thymol in diverse solvent environments: a density functional theory study
- 12.30-12.45 : OP 13. **Farjin Anyar Rahman**, Saifur Rahman Tashki, Abul Mukid Mohammad Mukaddes
Department of Industrial Engineering & Production Engineering, Shahjalal University of Science and Technology, Sylhet, Bangladesh
Non-invasive abdominal fat estimation from skin surface temperature: a finite element approach
- 12.45-13.00 : OP 14. Rumana Mahtarin^{1,3}, **Rynak Rahmat**¹, Rakib Bin Mahbub Talukder⁴, Suzana Chowdhury Nitu¹, Arif Mahmud Howlader¹, Kasrina Azad¹, Umme Kulsum¹, Nusrat Sultana¹, Mst. Noorjahan Begum¹, Farjana Akther Noor¹, Md Rofiqur Rahman¹, Firdausi Qadri^{1,2}, AHM Nurun Nabi³
¹Institute for Developing Science and Health Initiatives (ideSHi), Dhaka, Bangladesh; ²Mucosal Immunology and Vaccinology, Infectious Diseases Division, International Centre for Diarrhoeal Disease Research, Bangladesh, Mohakhali, Dhaka, Bangladesh; ³Department of Biochemistry and Molecular Biology, University of Dhaka, Dhaka, Bangladesh; ⁴Department of Electronics and Communication Engineering (ECE), Khulna University of Engineering & Technology (KUET), Khulna, Bangladesh
Advancing large-scale screening of β -thalassemia trait with novel combinations of discriminant formulas and machine learning algorithms

- 13.00-13.15 : OP15. **Md Al-Amin**¹, Fahima Akter¹, Fahmida Rahman Sanita², Sanjida Ahmed³, Md Nayeemur Rahman Bhuiyan Nayeem⁴
¹Department of Applied Nutrition and Food Technology, Islamic University, Kushtia, Bangladesh; ²Department of Microbiology, Stamford University Bangladesh, Dhaka, Bangladesh; ³Department of Food and Nutrition, Akij College of Home Economics, Dhaka, Bangladesh; ⁴Department of Computer Science and Engineering, Habibullah Bahar University College, Dhaka, Bangladesh
 A bi-objective linear programming model for cost-minimized and nutritionally adequate diet planning for university hall students in Bangladesh: a seasonal scenario analysis
- 11.35-13.15 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION IV (PARALLEL) - HALL D**
HEALTH, NUTRITIONAL AND PHARMACEUTICAL SCIENCES
- Chairs : **Prof Dr Md Abdur Rashid**
 : **Prof Dr Md Shahdat Hossain**
- 11.35-12.00 : IL 04. **Prof M Shamim Kaiser**
Institute of Information Technology, Jahangirnagar University, Savar, Dhaka, Bangladesh
 AI-powered healthcare services: Transforming patient care
- 12.00-12.15 : OP 16. **M. Nuruzzaman Khan**
Department of Applied Chemistry and Chemical Engineering, Faculty of Engineering and Technology, University of Dhaka, Dhaka, Bangladesh
 Cuo-go nanostructure embedded electrospun nanofibrous scaffolds: a porous, and cytocompatible platform for accelerated wound healing and skin regeneration
- 12.15-12.30 : OP 17. **Soharth Hasnat**¹, Soaibur Rahman², ADA. Shahinuzzaman³, M Murshida Mahbub², M Nazmul Hoque⁴, Tofazzal Islam¹
¹Institute of Biotechnology and Genetic Engineering, Gazipur Agricultural University (GAU), Gazipur, Bangladesh; ²Department of Genetic Engineering and Biotechnology, East West University, Dhaka, Bangladesh; ³Pharmaceutical Sciences Research Division, Bangladesh Council of Scientific and Industrial Research (BCSIR), Dhaka, Bangladesh; ⁴Molecular Biology and Bioinformatics Laboratory, Department of Gynecology, Obstetrics and Reproductive Health, GAU, Gazipur, Bangladesh
 Computational intelligence in drug discovery: identifying novel dfra1 inhibitors to combat trimethoprim-resistant *Klebsiella pneumoniae* and *Escherichia coli*
- 12.30-12.45 : OP 18. **Md Junaeid Rahman**, Sadia Rahman, Mirza Alimullah, Nusrat Subhan, Md Ashraful Alam
Department of Pharmaceutical Sciences, North South University, Bangladesh
 Network pharmacology and molecular dynamics-guided mechanistic elucidation of nifedipine and lercanidipine in isoproterenol-induced cardiac dysfunction

- 12.45-13.00 : OP 19. **Jonaitul Islam**, Ainun Afroz Sristy, Shagota Mahmud, Nourin Islam Subah, Md Shah Poran, Raisa Inan, Nafisa Azmuda, Nihad Adnan
¹Department of Microbiology, Jahangirnagar University, Savar, Dhaka, Bangladesh
Development and evaluation of a low-cost, machine learning assisted bioassay for rapid identification and antibiotic resistance assessment of uropathogenic *Klebsiella* spp.
- 13.00-13.15 : OP 20. **Ikramul Hasan**¹, Md Al Amin Sikder¹, Abu Asad Chowdhury¹, Md Abdul Mazid¹, Md Selim Reza², Mohammad A Rashid¹
¹Department Pharmaceutical Chemistry, Faculty of Pharmacy, University of Dhaka;
²Department of Pharmaceutical Technology, Faculty of Pharmacy, University of Dhaka
Bioprospecting marine endophytic fungi *Alternaria prunicola* and *Fusarium pernambucanum* isolated from *Ulva lactuca* collected from the bay of Bengal
- 13.15-14.30 : **Prayer and Lunch**
- 13.15-15.25 : **Poster Presentation**
- 15.25-16.00 : **PLENARY LECTURE SESSION II (Venue: Auditorium)**
- Chair : **Prof Dr Abu Borhan Mohammad Badruzzaman** (BAS)
- PL02. **Prof Dr Tanzima Hashem**
Department of Computer Science and Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh
Translational Artificial Intelligence: From research to societal impact
- 16.00-18.25 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION V (PARALLEL) - HALL A**
- Biological and Agricultural Sciences**
- Chairs : **Prof Dr Zeba Islam Seraj** (BAS)
Prof Dr Md Gulzar Hossain (BAS)
- 16.00-16.25 : IL 05. **Prof Dr Munawar Sultana**
Dept of Microbiology, University of Dhaka, Bangladesh
Computational Modeling and Development of Teseptimavirus-Based Phago-Biosensor for Sensitive Detection of *Salmonella* spp. from Humans to Agricultural Products: A One Health Approach
- 16.25-16.40 : OP 21. **Md Wahidul Islam**^{1,2,3}, Fatema Tuj Johora Fariha^{2,3}, Muntasim Fuad^{2,3}, Jannatul Ferdous^{2,3}, Md Jubayer Hossain², Faisal Ahmad¹, Tirtha Debnath¹, Shamsun Nahar¹, Brian Godman⁴, Salequl Islam^{1,5}
¹One Health Laboratory, Department of Microbiology, Jahangirnagar University, Savar, Dhaka, Bangladesh; *²Center for Health Innovation, Research, Action, and Learning-Bangladesh (CHIRAL Bangladesh), Dhaka, Bangladesh;* *³Department of Microbiology, Jagannath University, Dhaka, Bangladesh;* *⁴Department of Public Health Pharmacy and*

Management, School of Pharmacy, Sefako Makgatho Health Sciences University, Molotlegi Street, Garankuwa, Pretoria, South Africa; ²School of Optometry and Vision Science, Faculty of Medicine and Health, UNSW Sydney, Sydney, NSW, Australia

Patterns, predictors, and dynamics of antibiotic use and farm-level risk factors in Bangladeshi poultry production systems

16.40-17.10 : **Prayer and Refreshment**

17.10-17.25 : OP 22. **24-Mohammad Abdul Momin**

Bangladesh Rice Research Institute (BRRI), Gazipur, Bangladesh

Field-level constraints and farmer-prioritized solutions for the adoption of brri-released boro rice varieties in Bangladesh

17.25-17.40 : OP 23. **M Nazmul Hoque^{1,2}**

¹Department of Gynecology, Obstetrics and Reproductive Health, Gazipur Agricultural University, Gazipur, Bangladesh; ²Associate Fellow, Bangladesh Academy of Sciences (BAS), Agargaon, Dhaka, Bangladesh

Artificial intelligence (ai) and machine learning (ml) for sustainable management of mastitis in dairy animals

17.40-17.55 : OP 24. **Nabil Jahan Mahim¹**, Ashikur Rahman¹, Md. Shakil Mahmud Supto¹, Md. Rokibul Hasan Shanto¹, Md. Mukter Hossain¹, Md. Mahfujur Rahman¹, Syed Sayeem Uddin Ahmed², Md Bashir Uddin¹

¹Department of Medicine, Sylhet Agricultural University, Sylhet, Bangladesh; ²Department of Epidemiology and Public Health, Sylhet Agricultural University, Sylhet, Bangladesh; ³Habiganj Agricultural University, Habiganj, Bangladesh

Farmers' attitude mediates preventive practices against inclusion body hepatitis and fowl adenovirus (fadv) circulation in poultry in Bangladesh

17.55-18.10 : OP 25. **Md Rabiul Islam**

University of Helsinki, Finland

Determinants of food security in Bangladesh: a time-series analysis using the global food security index (2012–2022)

18.10-18.25 : OP 26. **Meer Sharib Salal**

Dept of Entomology, Muhammad Nawaz Shareef University of Agriculture, Multan, Pakistan

Decoding insect communication signals using artificial intelligence for the development of smart pest surveillance systems in agroecosystems

16.00-18.25 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION VI (PARALLEL) - HALL B**

Physical, Chemical, Natural Resource and Environmental Sciences

Chairs : **Prof Dr Kazi Matin Uddin Ahmed (BAS)**

Prof Dr Muhammed Shah Miran (BAS)

- 16.00-16.25 : IL 06. **S M Mofijul Islam**¹, Mohammad Nazrul Islam¹, Yam Kanta Gaihre², Bjoern Ole Sander³, Md. Rafiqul Islam¹
¹Bangladesh Rice Research Institute (BRRI), Soil Science Division, Gazipur, Bangladesh; ²International Fertilizer Development Center, Muscle Shoals, Alabama, USA; ³International Rice Research Institute, Los Baños, Philippines
 Effects of water management and climate-smart rice cultivars on greenhouse gas emissions and rice yield
- 16.25-16.40 : OP 27. **Sumit Das**¹, Maksudur Rahman Nayem², Jannat Ara Khanom¹, Mithun Kumar Saha¹, Mohammad Fazle Alam Rabbi¹, ²
¹Department of Soil, Water and Environment, University of Dhaka, Dhaka, Bangladesh; ²DNA Solution Ltd., Dhaka, Bangladesh
 Soil salinity induced microbial shifts in coastal regions of Bangladesh
- 16.40-17.10 : Prayer and Refreshment
- 17.10-17.25 : OP 28. **Nahid Hasan**¹, Nishat Tasnim Safa²
¹Department of Environmental Science and Management, Bangladesh University of Professionals, Dhaka, Bangladesh; ²Department of Agroforestry and Environment, Gazipur Agricultural University, Gazipur, Bangladesh
 Microplastic pollution in the Turag river, Bangladesh: implications for environmental monitoring and climate-resilient water management
- 17.25-17.40 : OP 29. **Maisha Farzana Methila**^{1,2}, Mohan Kumar Das^{1,2}, Md Momin Islam¹, Fatima Akter¹, Sheikh Fahim Faysal Sowrav ^{2,3}
¹Department of Meteorology, Faculty of earth and Environmental Science, University of Dhaka; ²Hydro-Climat and Ocean Centre (HCO-Centre), Dhaka, Bangladesh; ³Department of Oceanography and Hydrography, Bangladesh Maritime University
 Sensitivity analysis of microphysics, pbl, and cumulus schemes in wrf: accurate tropical cyclone simulation and landfall prediction over the bay of Bengal using in- situ observations
- 17.40-17.55 : OP 30. **Shipa Rani Singha**^{1,3,5}, Maria Binta Malek^{2,3}, Mohammad Kamruzzaman⁴, Mohan Kumar Das⁵
¹Department of Meteorology, University of Dhaka, Dhaka; ²Department of Geography and Environment, Jahangirnagar University, Savar, Dhaka; ³Bangladesh Space Research and Remote Sensing Organization (SPARRSO), Dhaka, Bangladesh; ⁴Bangladesh Rice Research Institute (BRRI), Gazipur, Bangladesh; ⁵Hydro-Climat and Ocean Centre, Dhaka, Bangladesh
 Integrating vegetation, climate, soil moisture data and crop modeling for district-level drought assessment in the Barind tract
- 17.55-18.10 : OP 31. **Pius Kumar**, Manoj Kumer Ghosh
 Department of Geography and Environmental Studies, University of Rajshahi, Rajshahi, Bangladesh
 Spatio-temporal dynamics of land surface temperature and its relationship with biophysical indicators in a rapidly developing region: a case study of Rajshahi district, Bangladesh

16.00-18.25 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION VII (PARALLEL) - HALL C**

Mathematical, Engineering and Computer Sciences

Chairs : **Prof Dr Mohammad Kaykobad (BAS)**
Dr Md Shamsuzzoha Bayzid (BAS)

16.00-16.25 : **Mohammad Mofizur Rahman Jahangir**
Department of Soil Science, Bangladesh Agricultural University, Mymensingh
Estimation of Nutrient Flows and Balance in Agriculture for Better Fertilizer Management using Machine Learning Algorithm

16.25-16.40 : OP 33. **Sharmin Sultana Lincoln**
Department of Biomedical Engineering, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh
A comprehensive machine learning framework for high-throughput dengue transcriptome analysis, biomarker discovery, functional annotation, and visualization of therapeutic targets

16.40-17.10 : **Prayer and Refreshment**

17.10-17.25 : OP 34. **Md Rahber Islam Rafi**, Nazia Rahman, Fahim, Zaman, Riazul Karim Rimon, Roshnat Tanjihee Anosua, Anisur Rahman
Department of Farm Power and Machinery, Bangladesh Agricultural University, Mymensingh
Ai-assisted computer vision for non-destructive freshness prediction of Nile tilapia using RGB eye image features

17.25-17.40 : OP 35. **Md Rokibul Hasan Shanto**¹, Arif Rahman Samad², Md Shakil Mahmud Supto¹, Md Bashir Uddin¹
¹Department of Medicine, Sylhet Agricultural University, Sylhet, Bangladesh; ²Department of Computer Science & Engineering, Sylhet Engineering College, Sylhet, Bangladesh
Deciphering antimicrobial resistance from bacterial genomes through explainable ensemble machine learning framework

17.40-17.55 : OP 36. **Md Shakil Mahmud Supto**¹, Sristi Sikder², Md Rokibul Hasan Shanto¹, Nabil Jahan Mahim¹, Md Bashir Uddin¹
¹Department of Medicine, Sylhet Agricultural University, Sylhet, Bangladesh; ²South Apollo Medical College, Barishal, Bangladesh
Decoding immune signaling in severe COVID-19: single-cell transcriptomics and machine learning insights

17.55-18.10 : OP 37. **Jewel Hossen**¹, Naoki Nakatani², Md Forhad Babu³, Md Mosfiqur Rahman Maruf¹
¹Department of Chemistry, Rajshahi University of Engineering & Technology, Rajshahi, Bangladesh; ²Department of Chemistry, Graduate School of Science, Tokyo Metropolitan University, Hachioji, Tokyo 192-0397, Japan; ³Department of Applied Chemistry and Chemical Engineering, University of Rajshahi, Rajshahi, Bangladesh
Computational investigation of anodic chlorine evolution reaction on platinum-tetraphenyl porphyrinelec trocatalyst

- 18.10-18.25 OP 38. **Muhaiminur Hossain**¹, Anik Mojumder², S M Mahbubur Rashid¹, Abul Bashar Mir Md Khademul Islam¹
¹Department of Genetic Engineering and Biotechnology, University of Dhaka; ²Department of Molecular Biosciences, The University of Texas at Austin
Development of chromacs: an automated and flexible gui for end-to-end reproducible atac-seq analysis across multiple species
- 16.00-18.25 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION VIII (PARALLEL) - HALL D**
Health, Nutritional and Pharmaceutical Sciences
- Chairs : **Prof Dr Chowdhury Rafiqul Ahsan** (BAS)
: **Prof Dr Hasan Mahmud Reza** (BAS)
- 16.00-16.25 IL 08. **Maj Gen (Retd) Prof Dr ASM Matiur Rahman**
Bangladesh Academy of Sciences, Dhaka, Bangladesh
Vector-Borne diseases and their prevention: Emerging challenges and the role of AI
- 16.25-16.40 : OP 39. **Nuran Rahman**¹, Israt Jahan Hira¹, Mashiyat Tabassum Mubina², Omar Sharif³, Farha Rahman Meheki⁴, Preyanka Nath¹, Zaheer Al-Amin⁴, Md Fakruddin¹
¹Department of Biochemistry & Microbiology, North South University, Dhaka; ²Department of Paediatrics, Shaheed Suhrawardy Medical College & Hospital, Dhaka; ³Department of Computer Science, Old Dominion University, Virginia, USA; ⁴Department of ENT & Head-Neck Surgery, Impulse Hospital, Dhaka
Analyzing hematological parameters in diabetes: toward a better understanding of pathophysiology
- 16.40-17.10 : **Prayer and Refreshment**
- 17.10-17.25 : OP 40. **Shakhawoat Hossain**, Zahangir Alam Saud, Khaled Hossain
Department of Biochemistry and Molecular Biology, University of Rajshahi, Rajshahi
Arsenic exposure–induced hypertension: mechanistic association with angiotensin-converting enzymes
- 17.25-17.40 : OP 41. **Md Muhtasim Mannan**¹, Mohammad Mamunur Rashid¹, Imtiaz Mahamud¹, Yasin Mollah¹, Mubasshir Washif¹, Md Rofiqur Rahman¹, Camille Beatrice G Bionda Valera², Camille Escadafal³, Firdausi Qadri¹, Andrew S Azman^{2,3,4,5,6}
¹Laboratory of Infectious Diseases, Institute for Developing Science and Health Initiatives, Dhaka, Bangladesh; ²Institute of Global Health, University of Geneva, Geneva, Switzerland; ³Geneva Centre for Emerging Viral Diseases, University Hospitals of Geneva, Geneva, Switzerland; ⁴Médecins Sans Frontières, Geneva, Switzerland; ⁵Division of Tropical and Humanitarian Medicine, University Hospitals of Geneva, Geneva, Switzerland; ⁶Department of Epidemiology, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, Maryland, USA
Bridging the diagnostic gaps for hepatitis e virus (hev) infection in resource-limited settings

- 17.40-17.55 : OP 42. **Rahman M Hafizur**¹, Mahadia Haider Opshara¹, Naima Akter¹, Sabira Ahammed¹, Sohail Shaukat²
¹Department of Biochemistry & Microbiology, North South University, Dhaka, Bangladesh;
²Dr. Panjwani Center for Molecular Medicine and Drug Research, International Center for Chemical and Biological Sciences, University of Karachi, Karachi-75270, Pakistan
A polyherbal formulation enhances glucose utilization and attenuates insulin resistance via upregulation of glut4 mrna in type 2 diabetic rats
- 17.55-18.10 : OP 43. **Muhammad Al Amin Dewan**, Fatema Akter Bethi, Md Samiul Haque, Anika Bushra Boitchi
Department of Public Health and Informatics, Jahangirnagar University, Savar, Dhaka, Bangladesh
Determinants of Metabolic Syndrome Control among Adult People with Non-Communicable Diseases Receiving Services at NCD Corner in Bangladeshi Hospitals: multilevel analysis
- 18.10-18.25 : OP 44. **Santu Biswas**¹, Rony Babu¹, Farzana Yeasmin¹, Promi Saha¹, Arpita Guha¹, Tofazzal Islam¹, Md Mahbubur Rahman¹
¹Institute of Biotechnology and Genetic Engineering (IBGE), Gazipur Agricultural University (GAU), Gazipur, Bangladesh
Ai-driven genomic insights into host adaptation and virulence of fish pathogenic streptococcus agalactiae in aquaculture in Bangladesh
- 19.00- **DINNER**

05 April 2026 Sunday

- 08.30-12.30 **Registration**
- 09.00-10.40 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION IX (PARALLEL) - HALL A**
- Biological and Agricultural Sciences**
- Chairs : **Prof Dr Md Anwar Hossain (BAS)**
Dr M Nazmul Hoque (BAS)
- 09.00-09.25 **IL 09. Dr Mohammad Kamruzzaman Milon**
Farm Machinery and Postharvest Technology Division, Bangladesh Rice Research Institute (BRRI), Gazipur, Dhaka, Bangladesh
From climate risk to climate intelligence: Artificial Intelligence for resilient agriculture in Bangladesh
- 09.25-09.40 **OP 45. Mohammad Mofizur Rahman Jahangir, Mohammad Jahiruddin**
Department of Soil Science, Bangladesh Agricultural University, Mymensingh
Estimation of Nutrient Flows and Balance in Agriculture for Better Fertilizer Management using Machine Learning Algorithm
- 09.00-09.55 **OP 46. Md Amzad Hossain¹, Afroza Tasnim¹, Omar Faruk¹, Tasfia Prima¹, Mohamed Abdelfattah Mekky², Haseena Khan¹, Takeshi Zendo², Mohammad Riazul Islam¹**
¹Molecular Biology Laboratory, Dept. of Biochemistry and Molecular Biology, University of Dhaka, Dhaka, Bangladesh; ²Laboratory of Microbial Technology, Department of Bioscience and Biotechnology, Faculty of Agriculture, Kyushu University, Fukuoka, Japan
Systematic process development for the heterologous expression of the novel lantibiotic, 'homicorcin'
- 09.55-10.10 **OP 47. Anindita Ash Prome, Md. Monirul Islam, Md Abdullah Evna Hasan, Sadia Afrin Punom, Mr. Saifur Rahman, Amrita Pondit and Md. Tanvir Rahman**
Department of Microbiology and Hygiene, Faculty of Veterinary Science, Bangladesh Agricultural University, Mymensingh, Bangladesh
Antimicrobial resistance profile, phylogeny and whole genome analysis of biofilm forming *Acinetobacter baumannii* isolated from dairy cattle farm environments from Mymensingh in Bangladesh
- 10.10-10.25 **OP 48. Abdullah Al Nayeem¹, Abdullah Al Kafi¹, Raziya Nasrin², Saria Rahman Rupak³, Julfikar Ali¹, Md. Shahrear Parvaj Sujon¹, Avi Kumer Badhon¹, Sharmin Islam¹, Dipali Rani Gupta¹, Tofazzal Islam¹**
¹Institute of Biotechnology and Genetic Engineering (IBGE), Gazipur Agricultural University (GAU), Gazipur, Bangladesh; ²Bangladesh Agricultural University (BAU), Mymensingh, Bangladesh; ³Bangladesh University of Professionals (BUP), Dhaka, Bangladesh
Genomic characterization of wheat seed endophytic bacillus using ai approaches for wheat blast management

- 10.25-10.40 OP 49. **Md Ariful Islam**¹, Md Ismail Hosen², Yearul Kabir²
¹National Institute of Nuclear Medicine & Allied Sciences (NINMAS), Bangladesh Atomic Energy Commission, ²Department of Biochemistry and Molecular Biology, University of Dhaka, Bangladesh
 Identification of Novel NRAS and RB1 Somatic Variants in Papillary Thyroid Carcinoma from a Bangladeshi Cohort
- 09.00-10.40 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION X (Parallel) - HALL B**
Physical, Chemical, Natural Resource and Environmental Sciences
- Chairs : **Prof Dr Shariff Enamul Kabir** (BAS)
Prof Dr Sharmin Sultana (BAS)
- 09.00-09.25 IL 10. **Nizam Uddin**
Genomic Research Laboratory, Bangladesh Council of Scientific and Industrial Research, Dhaka, Bangladesh
 Environmental Providencia stuartii BCSIR as a Hidden Reservoir of Antimicrobial Resistance and Virulence Factors: A Genomic and Pan-genomic Perspective
- 09.25-09.40 OP 50. Sabur Khan, Md Nazmus Salehin, **Sourov Pramanik Suvo** and Maruf Ahmed
Department of Food Processing and Preservation, Hajee Mohammad Danesh Science & Technology University, Dinajpur, Bangladesh
 Development of a fermented non-alcoholic back-sloped ginger beverage: impact of dealcoholization on physico-chemical properties, antioxidant activity, sensory characteristics, and flavour profile
- 09.40-09.55 OP 51. **Mohshin Maola**¹, Sukanta Mondal¹, Habiba Yasmin¹, Moshir Rahman¹, Md Al-Amin², Md Khokon Reza², SM Abdur Razzaque¹, Md Shamsul Alam¹
¹Department of Applied Chemistry and Chemical Engineering, Islamic University, Kushtia, Bangladesh; ²Department of Applied Nutrition and Food Technology, Islamic University, Kushtia, Bangladesh
 Sustainable starch-based biodegradable food packaging films reinforced with bio-derived oxide fillers for food security enhancement
- 09.55-10.10 OP 52. **Md Ikram Hossain**, Md Romzan Ali, Md Rafiul Hassan, Md Zaved Hossain Khan
Jashore University of Science and Technology
 Facile synthesis of 2d mo2tic2@pda/mno2 composite-based electrode material for clean and efficient energy storage
- 10.25-10.40 OP 54. **Hafiza Ghulam Fatima**
Institute of Biochemistry and Biotechnology, University of Veterinary and Animal Sciences, Lahore, Pakistan
 Environmental toxicity of ethyl paraben and its implications for risk assessment and urgent monitoring

09.00-10.40 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION XI (PARALLEL) - HALL C**

Mathematical, Engineering and Computer Sciences

Chairs : **Prof Dr Samia Subrina** (BAS)

Pof Dr Imran Khan

09.00-09.25 IL 11. **Dr Abu Nowshed Chy**

Computer Science & Engineering, University of Chittagong, Chittagong

Natural language processing and machine learning

09.25-09.40 OP 55. **Tanjim Ahmed**¹, Tasmia Jahin Mim²

¹Department of Electronics and Telecommunications Engineering, Chittagong, Bangladesh, Chittagong University of Engineering and technology; ²Department of Biotechnology, School of Life Sciences, BRAC University, Dhaka, Bangladesh

Comparative analysis of ai models for Alzheimer's disease: performance, interpretability, and clinical readiness

09.40-09.55 OP 56. **M Mirazus Salehin**, Md Shaheen Mahmud Shaikat, Md Rahber Islam Rafi, Anisur Rahman

Department of Farm Power and Machinery, Bangladesh Agricultural University, Mymensingh

Paddy leaves spad value prediction from rgb contact imaging using ensemble deep learning

09.55-10.10 OP 57. **Abu Horaira Al Rezon**, Tanvir Hossain, M Mirazus Salehin, Anisur Rahman

Department of Farm Power and Machinery, Bangladesh Agricultural University, Mymensingh

Study on 3d vision-based weed detection and localization and site-specific spraying with deep learning

09.00-10.40 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - LOP SESSION XII (PARALLEL) - HALL D**

Health, Nutritional and Pharmaceutical Sciences

Chairs **Dr Aliya Naheed** (BAS)

Prof Dr Shaikh Jamal Uddin (BAS)

09.00-09.25 IL 12. **Prof Dr Khondaker Abdullah Al Mamun**

IRII, United International University, Dhaka, Bangladesh

Digital Health: the Bangladesh perspective

09.25-09.40 OP 60. Murshadul Alam Murad, Afruza Momotaz Ruma, **Mohitosh Biswas**

Department of Pharmacy, University of Rajshahi, Rajshahi, Bangladesh

Investigation of clinically actionable cyp2c19 alleles and associated risk-phenotypes in the Bangladeshi population for advancing precision medicine

09.40-09.55 OP 61. **Shomaia Yasmin Mitu**, Marnusa Binte Habib, Kakoli Akter, Nasren Fatema Jaren,

Tanha Mohsina Jhoti, Nishat Kader Keya, Sirajum Munira, Ismat Ara, Shamsun Nahar, Salequl Islam

One Health Laboratory, Department of Microbiology, Jahangirnagar University, Savar, Dhaka, Bangladesh

Prevalence of class 1, 2, and 3 integrons in multidrug-resistant *Acinetobacter baumannii* isolated from burn wound infections

- 09.55-10.10 OP 62. **Ainun Afroz Sristy**, Jonaitul Islam, Shagota Mahmud, Nourin Islam Subah, Raisa Inan, Md Shah Poran, Nafisa Azmuda, Nihad Adnan
Department of Microbiology, Jahangirnagar University, Savar, Dhaka, Bangladesh
Rapid identification and antibiotic susceptibility testing of uropathogen *Pseudomonas aeruginosa* using an ai-integrated novel multiplex bioassay
- 10.10-10.25 OP 63. Amily Sarker, **Aranya Sanskrita**, Mohona Akter, Sultana Akter, Najmay Siddiqua Nibir, Swapnil Joy, Anowar Kasru Parvez
Environmental Health and Synthetic Biology Laboratory, Department of Microbiology, Jahangirnagar University, Savar, Dhaka
Characterization of multidrug resistance and biofilm formation in clinical *Staphylococcus* spp. Isolates
- 10.25-10.40 OP 64. **Durba Saha**, K P Pronab Krishna Gupta, Atiar Md. Suja Sami, Munima Haque
Biotechnology Program, Department of Mathematics and Natural Science, BRAC University, Dhaka, Bangladesh
Bacteriophage-based intervention to reduce antimicrobial resistant bacteria on shared motor cycle helmets
- 10.40-11.00 : **Light Refreshment**
- 11.00-11.40 PLENARY LECTURE SESSION III (Venue: Auditorium)**
- Chair : **Prof Dr Haseena Khan (BAS)**
PL03. **Prof Dr Mohammad Ali Moni**
Centre for AI and Digital Health Technology, AI and Cyber Futures Institute, Charles Sturt University, Australia; School of Information Technology, Washington University of Science & Technology, USA
AI for One Health: Building a smart and sustainable health ecosystem in Bangladesh
- 11.40-13.10 BANGLAJOL SYMPOSIUM (Venue: Auditorium)**
PUBLICATION ETHICS: BANGLADESH SITUATION
- Chairs : **Prof Dr Mesbahuddin Ahmed (BAS)**
Prof Dr Md Atiar Rahman (BAS)
- 11.40-11.45 **Introduction by the Chair**
- 11.45-12.05 : SL 01. **Professor Dr Mirza Hasanuzzaman**
Department of Agronomy, Sher-e-Bangla Agricultural University (SAU), Dhaka
Editors' responsibilities in promoting publication ethics

- 12.05-12.25 SL 02. **Prof Dr Md Shahidul Islam Shaheen**
Department of Dental Unit, Khwaja Yunus Ali Medical College & Hospital, Bangladesh
Advancing publication ethics: the role of the Reviewers
- 12.25-12.45 SL 03. **Dr Md Ashif Iqbal**
Dept of Periodontology & Oral Pathology, Sapporo Dental College, Dhaka, Bangladesh
The role of the Authors in ensuring publication ethics in the AI-era
- 12.45-13.05 **General Discussion**
- 13.05-13.10 **Concluding remarks by the Chair**
- 13.10-14.30 : **Poster Presentation**
- 13.10-14.30 : **Lunch and Prayer**
- 14.30-16.25 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION XIII (PARALLEL) - HALL A**
Biological and Agricultural Sciences
- Chairs : **Prof Dr Md Anwarul Azim Akhand (BAS)**
Prof Dr Kamrun Nahar (BAS)
- 14.30-14.55 : IL 13. **Prof Dr Md Rakib Hassan**
Department of Computer Science and Mathematics, Bangladesh Agricultural University, Mymensingh, Bangladesh
AI-Driven smart agriculture and precision farming
- 14.55-15.10 : OP 65. **Solaiman Bin Habib**, Muallimul Islam, Md Shahjahan
Laboratory of Fish Ecophysiology, Department of Fisheries Management, Bangladesh Agricultural University, Mymensingh, Bangladesh
Probiotics and spirulina improve growth performance, hematology, gut histology, and flesh composition of heat-stressed striped catfish (*Pangasianodon hypophthalmus*)
- 15.10-15.25 : OP 66. **Rumana Mahtarin**^{1,3}, Suzana Chowdhury Nitu¹, Md Ridwan¹, Rynak Rahmat¹, Mohammad Tanbir Habib¹, Anika Tahsin¹, Nusrat Sultana⁵, Mst. Noorjahan Begum⁴, Firdausi Qadri^{1,2}, A.H.M. Nurun Nabi³
¹Institute for Developing Science and Health Initiatives (ideSHi), Dhaka, Bangladesh; ²Mucosal Immunology and Vaccinology, Infectious Diseases Division, International Centre for Diarrhoeal Disease Research, Bangladesh, Mohakhali, Dhaka, Bangladesh; ³Department of Biochemistry and Molecular Biology, University of Dhaka, Dhaka, Bangladesh; ⁴Virology Laboratory, Infectious Diseases Division, International Centre for Diarrhoeal Disease Research, Bangladesh, Mohakhali, Dhaka, Bangladesh; ⁵Department of Virology, Dhaka Medical College, Dhaka, Bangladesh
Nanopore sequencing of hbb gene improved genotype–phenotype correlations in β -thalasemia and hbe/ β -thalassemia in Bangladesh

- 15.25-15.40 : OP 67. **Mohammad Shah Jahan**^{1,2}, Xun-Bo Zhou²
¹Department of Horticulture, Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh; ²Guangxi Key Laboratory of Agro-environment and Agro-products Safety, Key Laboratory of Crop Cultivation and Physiology, College of Agriculture, Guangxi University, Nanning, China
 Antagonistic switching from abscisic acid to melatonin-mediated sucrose synthesis triggers drought resilience in tomato seedlings
- 15.40-15.55 : OP 68. **Moneesh Thakur**, Hridayesh Prasad
Department of Veterinary Medicine, College of Veterinary Sciences and Animal Husbandry, Selesih, Aizawl, Central Agricultural University, Mizoram, India
 Haemato-biochemical, histopathological, oxidant-antioxidant stress changes and molecular characterization of a demodex canis from dog population of mizoram, India and its genomic analysis
- 14.30-16.25 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION XIV (PARALLEL) - HALL B**
Physical, Chemical, Natural Resource and Environmental Sciences
- Chairs : **Prof Dr Mubarak Ahmad Khan** (BAS)
Dr Mahmuda Begum (BA)
- 14.30-14.55 : IL 14. **Md Ashikur Rahman**
Bangladesh Fisheries Research Institute, Mymensingh, Bangladesh
 Targeted disruption of foodborne biofilms and innovative antimicrobial strategies for seafood safety
- 14.55-15.10 : OP 71. **Md Enamul Haque**, Joyanta K Saha
Department of Chemistry, Jagannath University, Dhaka, Bangladesh
 Optoelectronic properties of boron-nitrogen co-doped benzodithiophene and benzodiselenophene: a density functional theory study
- 15.10-15.25 : OP 72. **Md Arif Khan**¹, Graeme Hogarth², Jagodish C Sarke¹
¹Department of Chemistry, Jagannath University, Dhaka; ²Department of Chemistry, King's College London, 7 Trinity Street, London E51 1DB, UK
 Novel zinc diaryl-dithiocarbamate complexes as single source precursors(ssps) for nanoscale zinc sulfide (zns)
- 15.25-15.40 : OP 73. **Sakibul Islam**, Tajmin Sultana, Md Romzan Ali, Md Ikram Hossain, Md Rafiul Hassan, Md Zaved Hossain Khan
Jashore University of Science and Technology
 Pedot: pss-coated nicofe-ldh/nickel foam electrocatalyst for high-performance oxygen evolution reaction
- 15.40-15.55 : OP 74. **Ruhul amin**, Md Romzan Ali, Md Ikram Hossain, Md Rafiul Hassan, Md Zaved Hossain Khan
Jashore University of Science and Technology
 Electrochemical detection of l-histidine using zno nanoflower-based sensor in copper complex media

14.30-16.25 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION XV (PARALLEL) - HALL C**

Mathematical, Engineering and Computer Sciences

Chairs : **Prof Dr AKM Akther Hossain** (BAS)
Prof Dr Sumon Saha (BAS)

14.30-14.55 : **IL 15. TTanzeem Haque and Tahsin Tasnia Simi**

ACI AI Business, Dhaka, Bangladesh

Winning the Bid: AI-Powered Commercial Intelligence for Bangladesh's RMG Sector

14.55-15.10 : **OP 77. Md Sohan Alam, Jewel Hossen, Md Mosfiqur Rahman Maruf**

Department of Chemistry, Rajshahi University of Engineering & Technology, Rajshahi, Bangladesh

Dft and td-dft study of natural carotenoid-based photosensitizers for dye-sensitized solar cell

15.10-15.25 : **OP 78. Ramen Kumar Das¹, Nesheta Halder²**

¹Bangladesh University of Engineering & Technology (BUET); ²Dept of CSE, Daffodil Institute of IT

Integrating hybrid deep learning for real-time monitoring of prohibited fishing gear and juvenile (jatka) hilsa protection

15.25-15.40 : **OP 79. Jarin Islam shova**

International Islamic University Chittagong

A production-ready mfs fraud detection system: flutter-based mobile architecture with embedded ml inference and federated fine-tuning

15.40-15.55 : **OP 80. Tufail Ahmed Tufa, Md. Latifur Rahman Sarker, Chandan Roy**

Department of Geography and Environmental Studies, Faculty of Geoscience, University of Rajshahi, Rajshahi, Bangladesh

Gis-based assessment of socio-economic and environmental impacts of coastal tourism in Maheshkhali and tekna, Bangladesh

14.30-16.25 : **INVITED LECTURE (IL) & ORAL PRESENTATION (OP) - ILOP SESSION XVI (PARALLEL) - HALL A**

Health, Nutritional and Pharmaceutical Sciences

Chairs : **Dr Munirul Alam** (BAS)
Dr SM Yasir Arafat (BAS)

14.30-14.55 : **IL 16. Muhammad Zahid Al Beruni**

Healthcare Life Science Limited, Dhaka, Bangladesh

AI-Driven Pharmaceutical Innovation: Integrating Drug Discovery, Process Analytical Technology (PAT) and Smart Manufacturing

14.55-15.10 : **OP 83. Nazia Fairouz Alam¹, Moumita Chakrabarty², Tanmoy Debnath³, Mohammad Ashik Sheikh⁴, Md Imtiaz, Sadia Jannat Tauhida^{4,5}, Md Nazmul Hasan⁴, Mohaimenul Islam Tareq^{4,5}**

¹Analytical Research & Development, The ACME Laboratories Ltd, Dhulivita, Dhamrai;
²Microbiology Program, Department of Mathematics and Natural Sciences, BRAC University;
³One Health Laboratory, International Centre for Diarrheal Diseases Research, (icddr;b);
⁴Laboratory of Pharmaceutical Biotechnology and Bioinformatics, Jashore University of Science and Technology, Jashore, Bangladesh; ⁵Infinity Research and Innovation Institute, Dhaka, Bangladesh

In silico prediction of a conserved multi-epitope vaccine for human metapneumovirus using pan-genomic reverse vaccinology

15.10-15.25 : OP 84. **Masfida Akhter**¹, Jaber Ahmed²

¹Hamdard Institute of Traditional Medicine and Natural Product Research, Hamdard University Bangladesh; ²Department of Public Health, Hamdard University Bangladesh
 Association of dietary oil with body mass index, waist-hip ratio and blood pressure among rural Bangalee reproductive aged women

15.25-15.40 : OP 85. **Masuma Mannan**^{1,2}, Trishna M Thakuria², Raihana Azmeera Sultana²

¹Pothikrit Institute of Health Studies (PIHS), Dhaka, Bangladesh; ²University of Science and Technology, Meghalaya (USTM), Meghalaya, India

Availability and accessibility of primary health care services in a district of Bangladesh with better health outcomes: a study based on consumer perceptions

15.40-15.55 : OP 86. **Rafath Farah Rashid**¹, Maliha Alam Simi², Tahmina Ali Adrita³, Zarin Rasni Prova⁴, Kotha Bushra Zannat⁵, KS Anwar⁶

¹Dept. of Food & Nutr, Akij College of Home Economics, Dhanmondi, Dhaka; ²Dept of Pediatrics, Dhaka Medical College Hospital (DMCH); ³Department of Food and Nutrition, Akij College of Home Economics; ⁴Graduate Research Student, Department of Food and Nutrition, Akij College of Home Economics; ⁵Research Assistant, BTSH, Panthopath, Dhaka, and, Research Unit, Vision Eye Inst & Hosp, Green road Dhaka, Bangladesh; ⁶Public Health Nutrition, HDRC, Bangladesh Thalassemia Samity Hosp., Dhaka, and Vision Eye Inst. & Hospital, Dhaka, Bangladesh

Synergistic Impact of Younger Children Vulnerability and Nutritional Deficit Among Hospitalized Pneumonia Children: Recent Cross-sectional findings from Dhaka Medical College Hospital

15.55-16.10 : OP 87. **Mysha Fyruz**¹, Sabista A Banu², Sania N K. Prachy³, Kotha B Zannat⁴, Anika Jahin⁵, Anwar KS⁶, Liza Hasem⁷

¹Society for Health Extension and Development (SHED), Nutrition Centre, Cox's Bazar, Bangladesh; ²Assoc. Prof. Dept. of Food & Nutrition, Govt. College of Applied Human Sciences (GCAHS), Dhaka; ³Public Health, Exercise and Nutrition, University of Potsdam, Brandenburg, Germany; ⁴BTSH, Panthopath, Dhaka, and, Research Unit, Vision Eye Inst & Hosp), Dhaka; ⁵Nutritionist, Max Aid Diagnostic Center, Dhaka, Bangladesh; ⁶Public Health Nutrition, HDRC, Bangladesh Thalassemia Samity Hosp., Dhaka, and Vision Eye Inst. & Hospital, Dhaka; ⁷Department of Food and Nutrition, Government College of Applied Human Sciences (GCAHS)

Comparison of Perceived Knowledge on Infant and Young Child Feeding (IYCF) Between Young Bangalee and Tribal Women in Rangamati, Bangladesh

16.10-16.25 : **Mahbuba Akhter**, Jayabratha Saha
University of Science and Technology, Meghalaya, India
Proportion of dementia and its association with dietary vitamin B6 intake among elderly type 2 diabetic subjects in a dhaka-based community

16.25-17.15 : **CONCLUDING SESSION (Venue: Auditorium)**

Chairperson : **Prof Dr ZN Tahmida Begum**

Vice-President, Bangladesh Academy of Sciences

Open Discussion moderated by **Prof Dr Liaquat Ali**

Organizing Secretary, 6th YSC

Awards for the Best Oral and Poster Presentations

Remarks by **Maj Gen (Retd) Prof Dr ASM Matiur Rahman**

Chairperson, Organizing Committee, 6th YSC

Address by **Prof Dr Yearul Kabir**

Secretary, Bangladesh Academy of Sciences

Address by the Special Guest, **Munira Sultana, NDC**

Director General, National Museum of Science and Technology, Government of the People's Republic of Bangladesh

Address by the Chief Guest, **Mr Md Anwar Hossain**

Secretary, Ministry of Science and Technology, Government of the People's Republic of Bangladesh

Concluding Remarks by the Chairperson, **Prof Dr ZN Tahmida Begum**

Vice-President, Bangladesh Academy of Sciences

17.15-17.30 : **Light Refreshment**

POSTER PRESENTATIONS (PP)

PP001. ECONOMIC LOSSES OF MARGINAL FARMERS DUE TO LUMPY SKIN DISEASE (LSD) IN SYLHET DISTRICT, BANGLADESH

SM Sertaz Islam¹, Sumaiya Islam Supty¹, Sanowar Ul Islam¹ and Md Nazim Uddin²

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Md Shadman Khan, Mohin Hasan Turjo and Maruf Ahmed

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Md Rony Babu, Promi Saha, Arpita Guha, Farzana Yeasmin, Santu Biswas, Tofazzal Islam and Md Mahbubur Rahman

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Avi Kumar Badhon¹, Swapan Kumar Paul², Julfikar Ali¹, Md. Shahrear Parvaj Sujon¹, Abdullah Al Kafi¹, Sharmin Islam¹, Abdullah Al Nayeem¹, Jannatul Ferdous Eva¹, Ennika Al Jannat¹ and Dipali Rani Gupta¹ and Tofazzal Islam¹

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Sharmin Islam, Md Shahrear Parvaj Sujon, Md Abdullah Al Kafi, Turjoy Chandra Karmokar, Dipali Rani Gupta and Tofazzal Islam

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Abdullah Al Kafi, Julfikar Ali, Md Shahrear Parvaj Sujon, Avi Kumer Badhon, Sharmin Islam, Abdullah Al Nayeem, Jannatul Nira, Zannati Bristy, Jannatul Ferdous Eva, Turjoy Chandra Karmokar, Dipali Rani Gupta and Tofazzal Islam

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Abdul Hannan, Anwasha Mondal Proma, Abdul Mannan, Md. Almujaaddade Alfasane and ZN Tahmida Begum
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Tajmin Sultana, Sakibul Islam, Md Romzan Ali, Md Ikram Hossain, Md Rafiul Hassan and Md Zaved Hossain Khan
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PP054. MICROBIAL SIGNATURES AND FUNCTIONAL SHIFTS IN UPPER GASTROINTESTINAL CARCINOMA: A METAGENOMIC ANALYSIS

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Samanzar Sayeed, Takee Hasan and Md Morshedul Alam
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PP059. RATIONAL DESIGN OF PHENOLIC ANTIOXIDANTS: A DFT STUDY ON SUBSTITUENT-DRIVEN MODULATION OF O-H BOND DISSOCIATION ENERGIES

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PP063. IMPROVING MEDICATION SAFETY THROUGH BRAND-NAME-BASED DRUG INTERACTION DETECTION IN BANGLADESH

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Tanha Mohsina Jhoti¹, Maria Akter¹, Noor-E-Jannat¹, Sumia¹, Nasren Fatema Jaren¹, Shomaia Yasmin Mitu¹, Marnusa Binte Habib¹, Shamsun Nahar¹ and Salequul Islam^{1,2}

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Muhammad Al Amin Dewan, Fatema Akter Bethi, Md Samiul Haque and Anika Bushra Boitchi

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PP067. RIFAMPICIN-LOADED SOLID SNEDDS WITH EXALTED BIOAVAILABILITY: AN INVITROAND IN VIVO EVALUATION

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PP135. MULTIPLE ADVANTAGES OF CARBON SEQUESTRATION: CLIMATE MITIGATION AND PLANT IMMUNITY ENHANCEMENT

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S M Sohag^a, Md. Al Imran Imon^a, Motasim Billah^b, Famim Ahmed^c, Sharmin Nur Toma^d, Imtiaz Mahmud^e, Md. Niaj Morshed^f, Md Monirul Islam^a, Mst Farjana Khatun^a, Imran Mahmud^a

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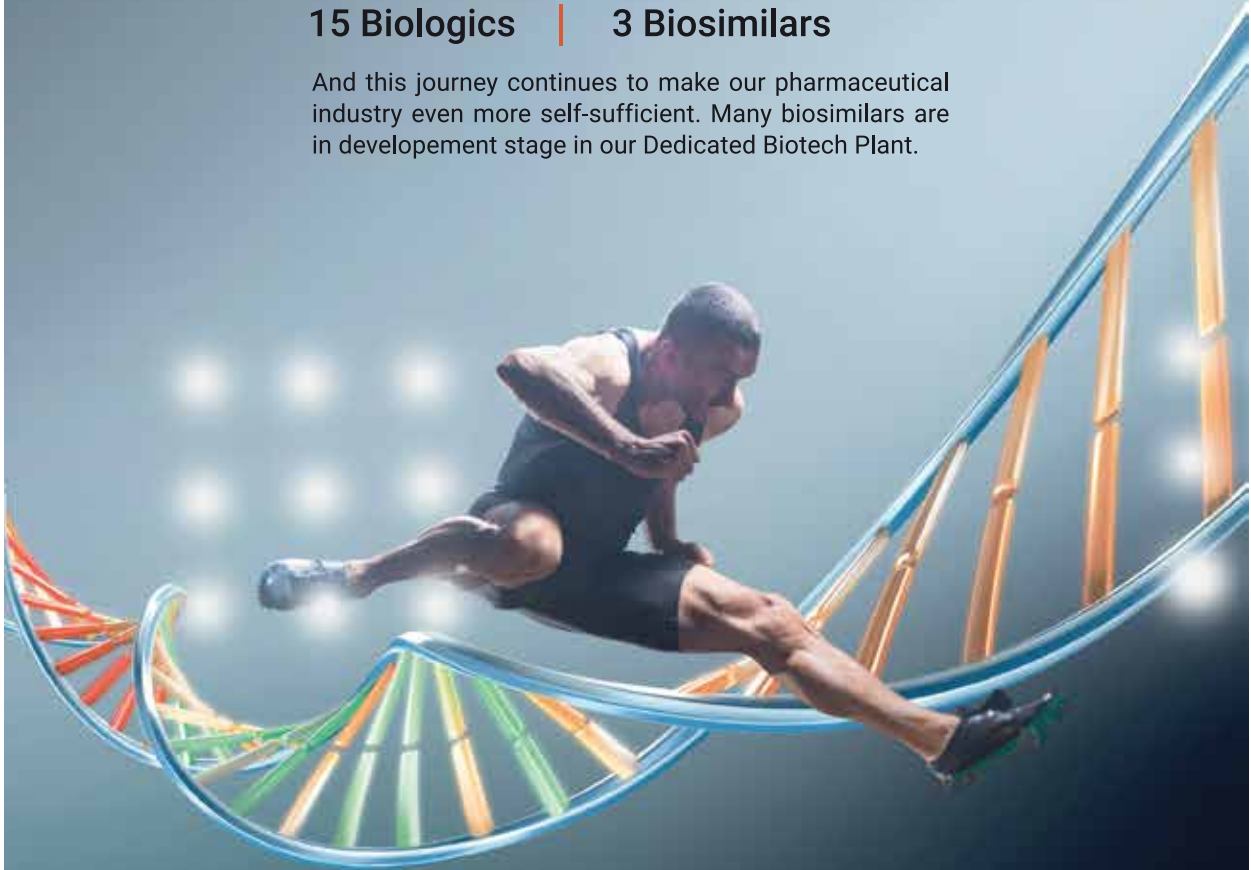
Mahadia Haider Opshara, Naima Akter Khusbu, Sujana Morshed, Sukanta Roy Apurba, Fariha Rahaman Priority, Atnu Ahmed Antu, Saadia Islam Noor, Sugara Shawkat Nabila, Mahimuna Akter Khadija and Rahman M Hafizur
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