Curriculum Vitae of Dr. Sudhangshu Kumar Biswas

Research Interests:

- Multidrug-resistant bacteria, bacteriophage biology and phage therapy with an aim to purify a unique broad-host-range bacteriophage as well as to develop phage-cocktail against the multidrug-resistant bacterial pathogens.
- Isolation and characterization of different dye degrading and decolorizing bacteria and fungi with an aim to develop a microbial consortium for large scale biodegradation.
- Combine approach of mutation breeding and biotechnology with an aim to develop the quality and quantity of food crops.

Personal Details:

Name	Date of Birth	Sex: M/F	Position held (since)
Sudhangshu Kumar Biswas	06/09/1979	M	Associate Professor (Since 02/10/2019)
<u>Present Address</u> : Dept. of Biotechnology and Genetic Engineering Islamic University Kushtia-7003 e-mail: skbiswas@btge.iu.ac.bd shu_genetics@yahoo.com Cell Phone: +88-01718-62625			<u>Permanent Address:</u> Vill: Basudebpur P.O.: Khangonj Upazila: Rajbari Sadar Dist: Rajbari

Academic degrees:

Subject/group	Name of Degree/Exam	University /institution	Country	Class/Division	Year
Microbiology	Ph. D	University of Malaya	Malaysia	Awarded	2019
Genetics and Breeding	M.Sc.	University of Rajshahi	Bangladesh	First Class	2003 (held in 2005)
Genetics and Breeding	B. Sc. (Hons.)	University of Rajshahi	Bangladesh	First Class	2002 (held in 2003)
Science	H.S.C	Rajbari Govt. College	Bangladesh	First Division	1998
Science	S.S.C	Belgachi A.Z. High School	Bangladesh	First Division	1996

Scientific experience:

Project Supervisor:

Currently I am supervising one thesis student who has achieved National Science and Technology (NST) Fellowship 2019-2020, Ministry of science and Technology, Bangladesh entitled "Isolation and molecular characterization of mixed-dye degrading bacteria from textile effluent".

Research experience in abroad:

Besides my PhD research, I have the experience to work different potential projects as a researcher in University of Malaya, Malaysia. Grant No: BK 031-2014 (2015-2016), Ministry of Education grant, Malaysia, entitled "The origin and evolutionary of serotype 1c of *Shigella flexneri"*, Grant No: PG 046-2015B (2016-2017), entitled "Studies on novel genes involved in synthesizing unique antimicrobial peptides" Grant No: RG 347-15AFR (2016-2019) entitled "Diversities of bacteriophages against *Shigella* spp." University of Malaya, Malaysia. In addition I co-supervised two final Year project students during my PhD candidature in University of Malaya.

Research experience in home:

Besides my own M.Sc. thesis, I have supervised seven (07) M.Sc. thesis students 7 M.Sc. project students and a numbers of B.Sc. project students during the last 10 years of my service. Furthermore, I did a collaborative research with the dept. of Genetic Engineering and Biotechnology (2013-2015) entitled "Decolourization of Effluents Emerge from the Textile Industry by a Microbial Consortium".

Conferences

1. **Sudhangshu Kumar Biswas**, Dipankar Chandra Roy , Ananda Kumar Saha , Biswanath Sikdar , Apurba Kumar Roy and Tang Swee-Seong (2018). Isolation and characterization of Malachite Green dye degrading bacterial strains from textile effluents. 23rd Biological Sciences Graduate Congress, 17-19 December 2018, **Chulalongkorn University, Bangkok, Thailand (Oral Presentation)**

2. Dipankar Chandra Roy, **Sudhangshu Kumar Biswas**, Mizanur Rahman, Ananda Kumar Saha, Biswanath Sikdar, Apurba Kumar Roy and Md. Enamul Haque (2018). Biodegradation of Mixed Dyes by Bacteria Isolated from Textile Effluent. 23rd Biological Sciences Graduate Congress, 17-19 December 2018, **Chulalongkorn University, Bangkok, Thailand (Poster Presentation).**

3. **Biswas SK.**, Rosli IS, Tan WS and Tang SS. (2017). Characterization of a tailless bacteriophage against drug resistant *Shigella* spp. 22st Biological Sciences Graduate Congress, 19-21 December 2017, **National University of Singapore, Singapore (Oral presentation).**

4. **Biswas SK.**, Tan WS, Saha AK, and Tang SS. (2017). Isolation of potential bacteriophage against drug resistant *Shigella* serovars. International Congress of the Malaysian Society for Microbiology, 4-7 December 2017, **Hotel Bangi, Putrajaya, Malaysia (Poster presentation).**

5. **Biswas SK**, Tan WS, Saha AK, and Tang SS. (2016). Isolation, serotyping and molecular identification of multidrug resistant *Shigella flexneri* from clinical samples. 21st Biological Sciences Graduate Congress, 15-16 December 2016, **University of Malaya, Malaysia (Oral presentation).**

6. **Biswas SK**, Saha AK and Tang SS. (2016). Isolation and serotyping of antibiotic resistant *Shigella* spp. from clinical samples. The 1st Asian Research Symposium, 25-27 April 2016, **Universitas Indonesia, Indonesia**. **(Oral presentation)**

7. Conference on Biotechnology for better tomorrow (2014), Institute of biological sciences, University of Rajshahi, Bangladesh **(Participant).**

8. 7th International Plant tissue Culture & Biotechnology Conference (2014) ,University of Dhaka, Bangladesh **(Participant).**

9. **Sudhangshu Biswas**, Apurba Roy, Rezuanul Islam and Samanandro Chowdhury, International Conference on Green Chemistry for Sustainable Development (2012), Isolation of Seed-Borne and Seed Associated Fungi of Lablab purpureus(L.) Sweet and Their Biological Control, Jashore University of science and technology, Bangladesh **(Oral Presenter)**.
10. 6th International Plant tissue Culture & Biotechnology Conference (2011), BSRI, Bangladesh **(Participant).**

Workshops

1. Enago Academy workshop on "**Academic Writing and Publishing**". Date 7 August 2019. Venue: IPPP Auditorium, University of Malaya, Kuala Lumpur Malaysia.
2. Elsevier publishing campus "**Author Workshop**". Date 14 September 2017. Venue: HIR Building, University of Malaya, Kuala Lumpur, Malaysia.
3. "**Prime Flow^{TM} RNA Assay Workshop**''. Date 1-2 March 2016. Venue: Medical Biotechnology Laboratory, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia.
4. "**Workshop Data Management of Clinical Research Data**". Date 27-28 January 2016. Venue: Julius Center, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia.

Training:

Received month-long foundation training (2015) from Graduate Training Institute, Bangladesh Agricultural University, Mymensingh.

Awards:

- Best poster presentation awarded from the International Conference of Malaysian Society for Microbiology (2017)
- Shahid Ziaur Rahman Hall Gold Medal from University of Rajshahi (2006) (this award is given for outstanding academic performances sincerity and regularity at graduation level).

Teaching experience:

- **Foreign University**

  a) Name of Institution: University of Malaya, Malaysia, working as a tutor from April 2016 to August 2018.

- **Native University**

  b) Name of Institution: Islamic University, Kushtia, Department of Biotechnology and Genetics Engineering from 18/04/2010 to till date.

Publications:

Book publication:

S.K. Barman, S. K. Biswas, B.K. Das, Advances in Engineering Rice for Saline Tolerance, LAP LAMBERT Academic Publishing, 2012, Germany.

Article publication:

1. Roy, D. C., Biswas, S. K., Sheam, M. M., Hasan, M. R., Saha, A. K., Roy, A. K., ... & Tang, S. S. (2020). Bioremediation of Malachite Green dye by two bacterial strains isolated from textile effluents. *Current Research in Microbial Sciences*.
2. Sheam, M. M., Syed, S. B., Barman, S. K., Hasan, M. R., & Kumar, D. COVID-19: The catastrophe of our time.
3. Tang, S. S., Biswas, S. K., Tan, W. S., Saha, A. K., & Leo, B. F. (2019). Efficacy and potential of phage therapy against multidrug resistant Shigella spp. *PeerJ*, *7*, e6225.
4. Tang, S. S., Prodhan, Z. H., Biswas, S. K., Le, C. F., & Sekaran, S. D. (2018). Antimicrobial peptides from different plant sources: Isolation, characterisation, and purification. *Phytochemistry*, *154*, 94-105.
5. Roy, D. C., Biswas, S. K., Saha, A. K., Sikdar, B., Rahman, M., Roy, A. K., ... & Tang, S. S. (2018). Biodegradation of Crystal Violet dye by bacteria isolated from textile industry effluents. *PeerJ*, *6*, e5015.
6. Rahman, S., Biswas, S. K., Barman, N. C., & Ferdous, T. (2016). Plant extract as selective pesticide for integrated pest management. *Biotechnological Research*, *2*(1), 6-10.
7. Islam, M. M., & Uddin, G. S. (2016). Irradiation to ensure safety and quality of fruit salads consumed in Bangladesh. *Journal of Food and Nutrition Research*, *4*(1), 40-45.
8. Microbial Treatment of Tannery Effluents: A Review
9. Lisa, L. A., Paul, D. K., Biswas, S. K., & Chandra, N. Drug Resistance Profiles of Potential Gram Negative Rods Isolated from Urinary Tract Infected (UTI) Patients of Bangladesh with Four South Asian Countries-An Updated Review.

10. Biswas, S., Roy, A., Islam, R., Alam, N., Chowdhury, S., & Rahman, M. (2019). ISOLATION OF SEED-BORNE AND SEED ASSOCIATED FUNGI OF Lablab purpureus (L.) SWEET AND THEIR BIOLOGICAL CONTROL. *Journal of Microbiology, Biotechnology and Food Sciences*, *2019*, 136-141.

11. Alam, N., Roy, A. K., Biswas, S. K., Gan, S. H., & Khalil, M. I. (2015). Identification of Mycoflora of Lablab Bean [Lablab purpureus (L.) Sweet] Seed Grown in Bangladesh and its Control by Hot Water Treatment.\

12. Lisa, L. A., Paul, D. K., Biswas, S. K., & Chandra, N. Drug Resistance Profiles of Potential Gram Negative Rods Isolated from Urinary Tract Infected (UTI) Patients of Bangladesh with Four South Asian Countries-An Updated Review.

13. Barman, S. K., Lisa, L. A., Paul, D. K., Dash, B. K., Biswas, S. K., & Roy, A. K. Perspective of Ebola virus disease (EVD): Outbreaks, etiology and treatment.

14. Alam, M. F., Amin, R., Uddin, M. E., Kumar, S. B., & Islam, M. M. (2015). Regeneration of Shoot from Nodal explants of Cucumis sativus considering different Hormonal concentration. *Int. Res. J. Biological Sci*, *4*(7), 48-52.

15. Biswas, S. K., Rahman, S., Kobir, S. M. A., Ferdous, T., & Banu, N. A. (2014). A review on impact of agrochemicals on human health and environment: Bangladesh perspective. *Plant Environment Development*, *3*(2), 31-35.

16. Islam, A., Azad, A., Karim, R., Biswas, S., Rahmam, M., & Rahman, M. (2014). Antibacterial Effects of Ocimum Sanctum L Leaves, Flowers and Shoots against Bacillus Spp from Soil. *Malaysian Journal Of Medical And Biological Research*, *1*(1), 35-42.

17. Saifur, R. M., Hasan, K. D. B., Jahan, M., Biswas, S. K., Haque, M. R., Haque, M. E., ... & Biswas, N. Ethanol extract of Curcuma longa leaf, candidate against Bacillus species mediated infections.

18. Khan, N. E., Hassan, N., Islam, M. R., & Biswas, S. K. (2013). Effect of mutagenic agents on seed germination and vegetative growth of mustard (Brassica rapa). *Bangladesh Journal of Scientific and Industrial Research*, *48*(4), 253-256.

19. Sen, M. K., Hasan, M. R., Biswas, S. K., & Mahmud, S. Effect of Mutagenic Agents on Seed Germination and Growth of Lentil (Lens culinaris). *chemical mutagens*, *6*, 9.

20. Islam, M., Sarker, N. C., Biswas, S. K., & Amin, R. (2011). Effect of light intensity and its management practices on yield of Ganoderma lucidum. *Bangladesh Journal Mushroom*, *5*, 17-22.

21. Dash, B. K., Faruquee, H. M., Biswas, S. K., Alam, M. K., Sisir, S. M., & Prodhan, U. K. (2011). Antibacterial and antifungal activities of several extracts of Centella asiatica L.

against some human pathogenic microbes. *Life Sciences and Medicine Research*, *2011*, 1-5.
22. Genetic studies of interaction between yield and it's component in eleven genotypes of country bean [(Lablab purpureus (L.) Sweet]