
DR. TANMOY BASAK

Designation: Assistant Professor

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Educational Qualification

- Ph.D., Aerobiology and Pollen allergy (Botany), [**Thesis title:** “Clinico-immunological studies of some airborne pollen allergens”], Visva Bharati University, Santiniketan, West Bengal. **2018**
- M.Sc., Botany (Plant physiology, Biochemistry and Molecular Biology), University of Calcutta, Kolkata, West Bengal, India **2008**
- B.Sc. (Botany Hons.), University of Calcutta, Kolkata, West Bengal, India **2006**
- Higher Secondary (10+2), WBHSE, Hindu School, Kolkata, West Bengal, India **2003**
- Madhyamik (10), WBSE, Hindu School, Kolkata, West Bengal, India **2001**

Research Experience

- ❖ **Research work (PhD)** **2011 - 2017**
 - Worked in the field of Aerobiology and Pollen allergy for characterization of IgE mediated immune-reactive proteins from some airborne pollen of West Bengal, India by an immune-biochemical approaches in Environmental Biology Laboratory, Department of Botany, Visva-Bharati (a central university), Santiniketan, India.
- ❖ **Research Fellow** **January 2012-December 2012**
 - Worked as Research Fellow in the project entitled “Preparation of Peoples Biodiversity Register of Birbhum District” funded by West Bengal Biodiversity Board.
- ❖ **Research Experience**
 - 9 years; working in the field of Plant Physiology, Biochemistry (enzymology), Aerobiology and characterization of allergic proteins from pollen.
 - For the purpose of research visited ITALY, SPAIN, FRANCE, GERMANY, AUSTRIA and JAPAN in different research laboratory.

- Engaged with M.Sc. student's dissertation of Department of Botany of Vidysagar University and Midnapore College (Autonomous).

Teaching Experience

- ❖ **Assistant Professor** **August 2019 to till date**
Assistant Professor of Botany, Department of Botany (UG & PG), Midnapore College (Autonomous), Raja Bazar Main Rd, Raja Bazar, Medinipur, West Bengal, PIN-721101
- ❖ **Lecturer** (Approved by Higher Education Department, Govt. of West Bengal) **November 2009 to August 2019**
- Lecturer in Department of Botany, Chandernagore Govt. College, Govt. of West Bengal (Under University of Burdwan, West Bengal, India).
- ❖ **Examiner/Student Counsellor** **2010 to till date**
Netaji Subhas Open University
- ❖ **Visiting faculty** **August 2009 to October 2010**
- Visiting faculty in Department of Botany, Chakdaha College, Kalyani (Kalyani University, Govt. of West Bengal, West Bengal, India).

Academic awards

1. FIMSA award in 48th Annual Meeting of Japanese Society for Immunology 2019, held in Hamamatsu, Japan.
2. P H Gregory award in 18th National Conference of Indian Aerobiological Society 2015, held in Tumkur, India.
3. Best poster presentation award (Young Scientist) in Environmental Science Section, 102th Indian Science Congress 2015, held in University of Mumbai, India.

MEMBERS (Academic Society)

1. The Indian Science Congress Association (ISCA) (Life Member).
 2. European Academy of Allergy and Clinical Immunology (EAACI) (JMA).
 3. The American Academy of Allergy, Asthma & Immunology (AAAAI) (Junior Member).
 4. European Respiratory Society (ERS) (Junior Member).
 5. World Allergy Organization (WAO).
 6. Indian Aerobiological Society (Life member).
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Skills

- Chromatographic techniques (TLC, paper chromatography, column chromatography, FPLC).
- Gel electrophoresis – protein [1D & 2D] and DNA (denaturing, native).
- Western immuno-blotting (1D and 2D), Northern and Southern blotting.
- Radioimmunoassay, radio-ligand binding assays, scintillation techniques, ELISA.
- Immunostaining, immunoprecipitation, Immunohistochemistry.
- Plant tissue culture and micro propagation practices.
- Organelle isolation.
- Microbial culturing, Cloning in plasmids, DNA sequencing, cDNA Microarray techniques and other microbiological techniques.
- Flow Cytometry, MALDI-TOFF operating.
- PCR and RT-PCR operating.
- Microscopy (uniocular, biocular, triocular, dark field, phase contrast).
- Refractometer.
- Centrifugation techniques – ultra, refrigerated & microfuge, vortex spinner.
- Spectrophotometric operations [UV – visual spectrophotometer].
- Condenser, lipholizer, speed-vac operating.
- Rotary evaporator operating, Sonicator operating.
- Extraction methods for active constituents from Plant material.
- Computer skills especially with innovative research equipment.
- Statistical analysis of biological data using popular statistical softwares (R studio, SPSS, Minitab express etc.)

Book Chapter review:

“Helminth therapy: a new tool for treatment of allergic diseases.” in e-book ‘Frontiers In Clinical Drug Research - Anti-Allergy Agents’.- March 2018

Publication (Papers and Research Articles)

1. **Basak, T.** & Bhattacharya, K. (2018). Identification of airborne pollen allergens from two avenue trees of India. *International Journal of Environmental Health Research*. 29(4), 414-429.
2. **Basak, T.** & Bhattacharya, K. (2018). Immunoclinical Characterization of *Cassia occidentalis* L. pollen allergens, a Potential Aeroallergen from West Bengal. *J. Biol. Chem. Research*. 35(2), 574-581.

3. **Basak, T.** & Bhattacharya, K. (2018). Aerial Pollen Diversity of Two Bio-Geographical Zones of West Bengal and Their Clinical Significance in Allergic Diseases. *Int J Pharm Biol Sci.*, 8 (3), 449-460.
4. **Basak, T.**, Chakraborty, A. & Bhattacharya, K. (2017). Pollen Spectrum Variations in the Atmosphere of Santiniketan, West Bengal and Influence of Meteorological Parameters & Air Pollution. *Indian J. Sci. Res.*, 17(1), 1-12.
5. **Basak, T.**, Chakraborty, A. & Bhattacharya, K. (2017). Investigation of aerial pollen diversity in Santiniketan, West Bengal and prediction of pollen concentration: a new statistical approach for forecasting of pollen season. *Indo American Journal of Pharmaceutical Sciences*, 4 (11), 4576-4587.
6. **Basak, T.**, Chakraborty, A. & Bhattacharya, K. (2015). Atmospheric pollen spectra of an historical french colony, Chandannagar, West Bengal, India. *Indian Journal of Aerobiology*, 28 (1&2), 21-36.
7. **Basak, T.**, Pandey, N., and Bhattacharya, K. (2015). Identification of IgE reactive proteins from pollen of *Lagerstroemia speciosa* and *Spathodea campanulata* –Two avenue trees of West Bengal; *European Respiratory Journal*, DOI: 10.1183/13993003.
8. **Basak, T.**, Pandey, N., and Bhattacharya, K. (2015). Identification of IgE reactive proteins from pollens of *Lagerstroemia speciosa* and *Spathodea campanulata*: two avenue trees of West Bengal; *Allergy*, 70 (Suppl. 101), 128-129.
9. **Basak, T.**, Pandey, N., and Bhattacharya, K. (2013). Clinico-immunological characterization of *Cassia fistula* L. pollen and its allergenic relationship with *Cassia occidentalis* L. pollen; *Allergy*, 68 (Suppl. 97), 263-264.

Abstract articles accepted and published

1. 48th Annual Meeting of Japanese Society for Immunology 2019, held in Hamamatsu, Japan.
2. 37th EAACI Congress 2018, Munich, Germany.
3. Pediatric Allergy and Asthma Meeting (PAAM) 2017, London, England.
4. 18th National Conference of Indian Aerobiological Society 2017, Bose Institute, Kolkata, India
5. 6th European Symposium on Aerobiology 2016, Lyon, France.
6. 18th National Conference of Indian Aerobiological Society 2015, Tumkur, India
7. 34th EAACI Congress 2015, Barcelona, Spain.
8. 102th Indian Science Congress 2015, University of Mumbai, Mumbai.
9. Allergy School on investigating allergic effects of environmental exposure, 2014, Brisdisi, Italy.

10. 3rd WAO International Scientific Conference (WISC 2014), Rio de Janeiro, Brazil.
11. International Conference on Aerobiology 2014, Sydney, Australia.
12. 5th Youth Science Congress 2013, Santiniketan, India.
13. EAACI-WAO World Allergy & Asthma Congress, 2013, Milan, Italy.
14. 17th National Conference of Indian Aerobiological Society, 2012, Pune, Maharashtra.
15. British Society for Allergy & Clinical Immunology BSACI 2012, Telford, England.
16. World Allergy Organization 2012, Hyderabad, India.
17. 5th European Symposium on Aerobiology 5ESA 2012, Krakow, Poland.

Academic achievements (from Govt. of India and Non-govt. organization):

1. Travel Grant received from Japanese Society for Immunology 2019 to attend 48th Annual Meeting of JSI, held in Hamamatsu, Japan.
2. Travel Grant award by European Academy of Allergy and Clinical Immunology to attend EAACI Congress 2018, held in Munich, Germany.
3. Travel Grant award from Department of Science and Technology (DST-SERB), Govt. of India to attend 6th European Symposium on Aerobiology 2016, held in Lyon, France.
4. Travel Grant award from European Aerobiological Society to attend 6th European Symposium on Aerobiology 2016, held in Lyon, France.
5. Travel Grant award from Department of Biotechnology (DBT), Govt. of India to attend 34th EAACI Congress 2015, held in Barcelona, Spain.
6. Travel Grant award by European Academy of Allergy and Clinical Immunology to attend 32th World Allergy & Asthma Congress 2013, held in Milan, Italy.

Attended conference & Presented papers:**INTERNATIONAL:**

1. **48th Annual Meeting of Japanese Society for Immunology 2019, held in Hamamatsu, Japan.**
[Allergy to *Cassia nodosa* pollen, a new aeroallergen identified from India and its cross-reactivity patterns: an immune-biochemical insight]
2. **37th European Academy of Allergy and Clinical Immunology Congress (EAACI) 2018, held in Munich, Germany.**
[High prevalence of seasonal pollinosis among the farmers due to Kans grass and its IgE mediated cross reactivity patterns with other grasses: An immunochemical approach- Oral presentation]
3. **6th European Symposium on Aerobiology (ESA) 2016, held in Lyon, France.**

[Identification of new allergens from *Saccharum spontaneum* (Kans grass) pollen and its IgE-mediated cross-reactivity with other dominant grass pollens of West Bengal, India: an immunoclinical insight- Oral presentation]

4. 34th European Academy of Allergy and Clinical Immunology Congress (EAACI) 2015, held in Barcelona, Spain.

[Identification of IgE reactive proteins from pollens of *Lagerstroemia speciosa* and *Spathodea campanulata*: two avenue trees of West Bengal- Oral presentation]

5. 32th European Academy of Allergy and Clinical Immunology Congress EAACI-WAO World Allergy and Asthma Congress, June 2013, held in Milan, Italy.

[Clinico-immunological characterization of *Cassia fistula* L. pollen and its allergenic relationship with *Cassia occidentalis* L. pollen- Paster presentation]

NATIONAL:

1. 19th National Conference of Indian Aerobiological Society, December 2016, held in Bose Institute, Kolkata, India.
2. 18th National Conference of Indian Aerobiological Society September 2015, held in University of Tumkur, Tumkur, India.
3. 102th Indian Science Congress 2015, January 2015, held in University of Mumbai, Mumbai, India.
4. 5th Youth Science Congress 2013, December 2013, held in Visva-Bharati, Santiniketan, India.
5. 100th Indian Science Congress, January 2013, held in University of Calcutta and Bose Institute, Kolkata, India.
6. 17th National Conference of Indian Aerobiological Society- Impact of Airborne Microbes, November 2013, MAEER's Arts, Commerce and Science College, Pune, India.
7. UGC sponsored national level Seminar on Biodiversity- Crisis, Conversation and Management, March 2012, held in Motijheel College, Kolkata
8. Seminar on International day for biological diversity, March 2012, arranged by West Bengal Biodiversity Board, held in Kolkata.

TRAINING AND CERTIFICATION

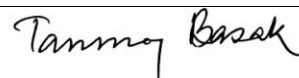
CERTIFICATE IN BASIC COMPUTER KNOWLEDGE (CSC, India)

IT SKILLS

MS office, Internet Applications, E-mail and Fax

EXTRACURRICULAR ACTIVITY

SWIMMING, PAINTING & PHOTOGRAPHY



Signature

DR. TANMOY BASAK
