

## PRIYANKA GHOSH, PhD (Science)

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Date of Birth: 24<sup>th</sup> September, 1988  
Address: Trinoyoni dream house apartment  
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Pin-711316, Dist.-Howrah  
State- West Bengal



### CAREER OBJECTIVES:

To continuously enhance my knowledge, skills and experience in the field of microbiology by getting involved in inspiring work environments to solve new challenges. Always try to up to date in this field. Love to interact with students, encourage them to love this subject. Eager to know about new topics and have some interest to work on molecular biology related research work.

### EXPERIENCE:

- ✚ Four years and five months had teaching experience as a **guest faculty** in Panskura Banamali College. Now Working as a **guest teacher** in Panskura Banamali College (Microbiology Department).
- ✚ Working as a **visiting faculty** in Raja N.L. Khan Women's College (M. Sc Microbiology).
- ✚ Working as a **visiting teacher** in Behala Govt. College (Food and Nutrition Department).
- ✚ Working as a **visiting teacher** in Uluberia College (Microbiology Department).

### EDUCATION CREDENTIALS AND WORK EXPERTISE:

Food Technology and Biochemical Engineering Department, Jadavpur University,  
**2015 – 2022 | Doctoral research fellow (UGC, Govt. of India)**

**Title of thesis:** Studies on production of laccase through solid state fermentation, its characterization and application in biotechnology

- ✚ High fidelity optimization of microbial enzymes (Laccase, Amylase, Cellulases, Naringinase, Protease)
- ✚ Enzyme purification and novelty characterization
- ✚ Immobilization of industrially important enzymes, Bioremediation
- ✚ Biosaccharification of lignocellulosic biomass and bioethanol production, dye decolorization.

Vidyasagar University, West Bengal

**2010 – 2012 | Postgraduate (M. Sc) (70.5%)**

- ✚ Classic and applied Microbiology, Nanotechnology
- ✚ Theory, practical, soft presentation, Institution and Industrial exposure
- ✚ Three months M.Sc. dissertation project from *Jadavpur University, Kolkata*

## RESEARCH PUBLICATION DETAILS:

### Book Chapter:

1. **Ghosh P**, Das A, Gayen S, Mondal KC, Ghosh U (2013). Production and Purification of Thermo-stable  $\alpha$ -amylase through Solid-state Fermentation using Agro-waste. Food Safety. Readers Service. 80.
2. **Ghosh P**, Ghosh U (2014). Enzyme Purification through Chromatographic Technique. Recent Trends in Chromatographic Separation. Readers Service. 89-103.
3. **Ghosh P**, Ghosh U (2016). Bioconversion of agro waste to value added product through solid state fermentation by a potent fungal strain *Aspergillus flavus* PUF5. Utilization and Management of Bioresource. Springer. 291-299.
4. **Ghosh P**, Ghosh U (2017). Laccase: Enzyme for green technology. Recent Developments in Sustainable Agriculture. Bharti Publication. New Delhi. 70-78.
5. **Ghosh P**, Ghosh U (2018). Laccase- Oxidoreductase Enzyme and Its Application in Bioremediation. Renewable Energy Sources & Environmental Protection (An International Edition), IRPH, Chapter 24, page 375-396.
6. **Ghosh P**, Ghosh U (2018). Application of fermentation strategies for improved laccase production: Recent Developments. Principles and Applications of Fermentation Technology, Wiley Publication. Chapter 7, page 117-140.
7. Das A, **Ghosh P** (2018) Solid State Fermentation- A Stimulating Process for Valorization of Lignocellulosic Feedstocks to Biofuel. Principles and Applications of Fermentation Technology, Wiley Publication, Chapter 13, page 239-262.
8. **Ghosh P**, Ghosh U (2020). A Vanguard biocatalyst and its potentiality towards industrial application. Microbial Fermentation and Enzyme Technology. CRC Press, Taylor & Francis. Chapter 17, page 269-282.
9. **Ghosh P**, Ghosh U (2021). Biodegradation of Dyes by Laccase from isolated strain *Aspergillus flavus* PUF5. PUF5. Advances in Bioprocess Engineering and Technology. Springer. Chapter 5, page 109-118.

### Journals:

1. **Ghosh P**, Mitra R, Sarkar S, Ghosh U (2020). Production of bioethanol by enzymatic sachharification through Response surface method using agro waste. GIS SCIENCE JOURNAL. 7(8): 301-308.
2. **Ghosh P**, Ghosh U (2020). Statistical Optimization of fermentation parameters by Response Surface Methodology using isolated strain *Aspergillus flavus* PUF5. Indian Chemical Engineer. 62 (4): 427-438.
3. **Ghosh P**, Ghosh U (2019). Immobilization of Purified Fungal Laccase on Cost Effective Green Coconut Fiber and Study of its Physical and Kinetic Characteristics in both Free and Immobilized Form. Current Biotechnology. 8:3-14.
4. **Ghosh P**, Das A, Ghosh U (2018). Laccase production by potent fungal isolate *Trichoderma* sp PUF 2 through submerged fermentation and its application in dye decolorization. Indian Journal of Biological Sciences. 24:51-59.

5. **Ghosh P**, Ghosh U (2017). Statistical optimization of laccase production by *Aspergillus flavus* PUF5 through submerged fermentation using agro-waste as cheap substrate. *Acta Biologica Szegediensis*. 61(1):25-33.
6. Das A, **Ghosh P**, Pau I T, Ghosh U, Pati BR, Mondal KC (2016). Production of bioethanol as useful biofuel through the bioconversion of water hyacinth (*Eichhornia crassipes*). *3Biotech*. 6:70.
7. **Ghosh P**, Das A, Gayen S, Mondal KC, Ghosh U (2015). Statistical optimization of  $\alpha$ -amylase production from *Penicillium notatum* NCIM 923 and kinetics study of the purified enzyme. *Acta Biologica Szegediensis*. 59(2):179-188.
8. Das A, Paul T, **Ghosh P**, Halder SK, Das Mohapatra PK, Pati BR, Mondal KC (2015). Kinetic Study of a Glucose Tolerant  $\beta$ - Glucosidase from *Aspergillus fumigatus* ABK9 Entrapped into Alginate Beads. *Waste Biomass Valorization*. 6:53-61.

#### **AWARDS:**

- **Won 2<sup>nd</sup> Prize** on Oral Presentation in a National Seminar.

#### **SEMINARS / CONFERENCES:**

1. Priyanka Ghosh, Uma Ghosh. Production and Purification of Thermostable  $\alpha$ -amylase through Solid-state Fermentation using Agro-waste. Oral presentation in UGC sponsored National Seminar on Food Safety. 7-8<sup>th</sup> August. 2013.
2. Priyanka Ghosh. Genetically Modified Food. Poster presentation in in UGC sponsored National Seminar on Food Safety. 7-8<sup>th</sup> August. 2013.
3. Priyanka Ghosh, Uma Ghosh. Enzyme Purification through Chromatographic Techniques. Oral presentation in UGC sponsored National Seminar on Recent Trends in Chromatographic Separation. 24<sup>th</sup> July. 2014.
4. Priyanka Ghosh, Uma Ghosh. Utilization of agro waste for production of multicopper containing laccase by isolated potent strain. Oral presentation in 23<sup>rd</sup> West Bengal State Science & Technology Congress. 28-29<sup>th</sup> Feb. 2016.
5. Priyanka Ghosh, Uma Ghosh. Value addition to agro-waste for Bio-synthesis of laccase by isolated strain. Oral presentation in National Seminar on Research Trends in Medicine and Biology: The issues of Health, Ecology and Management. 20<sup>th</sup> March 2016.
6. Priyanka Ghosh, Uma Ghosh. Bioconversion of agro waste to value added product through solid state fermentation by a potent fungal strain *Aspergillus flavus* PUF5. Oral presentation in international conference on solid waste management, 6<sup>th</sup> Icon SWM, 24-26<sup>th</sup> Nov. 2016.
7. Priyanka Ghosh, Uma Ghosh. Biotechnological applications of laccase towards a green society. Poster presentation in international conference on Emerging Technologies in Agricultural and Food Engineering, 27-30<sup>th</sup> Dec 2016.

8. Priyanka Ghosh, Uma Ghosh. Laccase: Enzyme for green technology. Oral presentation in National Seminar on Sustainable Agriculture for Food Security and Better Environment. 24<sup>th</sup> March. 2018.
9. Priyanka Ghosh, Uma Ghosh. Optimization of biosynthetic parameters for laccase production through solid-state fermentation. Oral presentation in UGC sponsored National seminar on “Advancement in plant sciences: An insight”. 30<sup>th</sup> Sept 2019.
10. Priyanka Ghosh, Uma Ghosh. Biodegradation of dyes by laccase from isolated strain *Aspergillus flavus* PUF5. Oral presentation in 2<sup>nd</sup> International conference on Advances in Bioprocess Engineering and Technology. 20-22<sup>nd</sup> Jan 2020.

#### **WORKSHOPS:**

1. DBT Sponsored Bioinformatics (Computational & Structural).
2. National Workshop on Use of Free Software.
3. Industrial Experiments for Engineering Students: WIEEST-2015/1.
4. International workshop on Advanced Hybrid Separation Techniques in Industrial Wastewater Management.
5. National workshop on Current Trends in Cryogenics.

#### **HANDS ON:**

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|-------------------------|-------------------------|
| 1. FTIR                 | 6. GC-MS                |
| 2. HPLC                 | 7. Sonicator            |
| 3. Column-chromatograph | 8. TLC                  |
| 4. Rota-Vac             | 9. Texture analyzer     |
| 5. Spectrophotometer    | 10. Gel-Electrophoresis |

#### **COMPUTER PROFICIENCY:**

Working Knowledge: MS-Office, Excel, Power-point, Publisher, Design Expert  
Operating System : Windows XP, Windows 7, Windows 8,  
Windows 10  
Documentation : Office 2003, 2007, 2010, 2013

#### **ACTIVITIES AND INTERESTS:**

I take keen interest in all sporting activities, passionate to read books, updated with daily news. Travelling is one of most favorite things in my life and also, I've varied interest in music and dance. I've interest in surfing internet.

#### **DECLARATION:**

I solemnly declare that all statements made in this application are true, complete and correct and original documents will be produced on demand.

Date: 25.03.2024

*Priyanka Ghosh.*

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