# Dr S BISWAS, MSc, PhD, MBA

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## SUMMARY


- I provide leadership to the entire **Research and Development** (R&D) Department at my current organisation, which includes the R&D Mycology and Microbiology Division, R&D Entomology Division, and R&D Chemistry Division. Together, we work to create **Environmentally Sound Technologies** (ESTs), as well as to enhance and create new products like **Biopesticides, Organics, Microbial Inoculants, Pheromones, and Pesticide baits**, as well as produce **Mushroom** (as food and as adaptogens).
- I have over **12 years of experience** in industry and academics.
- I have received several scholarships, fellowships, and grants from the **Georg-August University of Goettingen**, Germany; the **University of Aarhus**, Denmark; and **the European Commission**. I have gained domain knowledge from education, training, workshops, and seminars on Life Sciences and Biology, Mycology and Microbiology, Metagenomics, Recombinant DNA Technology, Microbial Resources, and Molecular Biology Techniques from diverse universities and institutions from **India, Denmark, Germany, France, and Australia.**


## WORK EXPERIENCE

**Gaiagen Technologies | Formerly Pest Control (India) Pvt. Ltd.** **Bangalore, India**
*Lead Scientist, Research & Development Department* April 2021 – present

- Providing leadership to a team of 51 experienced Lead Scientists, Senior Scientists, Junior Scientists, Senior Research Associates, Junior Research Associates, Technical Officers, and others; spearheading the scientific research and development for the company.
- Reviewing, integrating, and enhancing processes to match business needs, initiatives, and objectives; covering cross-functional activities; development of training program, user acceptance test, and communication plan to introduce new functionalities. As well as acting as the global interface for synergies, best practices sharing, and benchmarking.

*Lead Scientist, Product Development and Product Lifecycle Management* August 2019 - April 2021

- Development of improved SOPs for 2 products to reduce the usage of raw materials and technical products in the production of finished goods by 93% and 64%, which translates to a reduction in COGS (cost of goods sold).
- Development of improved SOPs for 2 products to reduce batch failure from more than 30% to less than 1%, which translates to a reduction in COGS.
- Development of improved SOP to bring back a product from nonconforming formulation to label claim and augmented speed of action of the product in the field by more than 30%.
- Generated proof of concept for in-vitro production of a biological control agent, the active ingredient of a product, which is a new organisational capability, reducing workforce as well as space usage significantly.
- Established and increased our in-house microbial Culture Collection by 740%.
- Improved the quality of Contract Research delivered to our client, resulting in positive feedback and repeat client.

**Personalised Medicine Institute Pvt Ltd (PMI)** **Kolkata, India**
*Junior Molecular Biologist* January 2018 - July 2018

- Provided leadership in deploying next-generation sequencing (NGS) technology for the clinical diagnosis of infectious diseases and genetic disorders with a limited budget of $1 million. Also engaged with KOLs and HCPs during CMEs.

**Visva-Bharati University** **Santiniketan, India**
*Project Fellow* June 2009 - August 2010

- Designed scientific experiments for University Grant Commission (UGC), Govt. of India, Major Project, entitled "Exploitation of free-living phosphate solubilising rhizobia for improvement of soil fertility and promotion of plant growth." Isolated and characterised phosphate solubilising rhizobia; managed documentation and archiving of the findings of the project.

**University of Aarhus** **Aarhus, Denmark**
*Guest Researcher* September 2008 - November 2008

- Investigated UV-induced DNA damage in a bacterial isolate from the Arctic. Investigated the effect of osmotic stress on the growth of a psychrophilic bacterial isolate from the Antarctic cold, dry habitat.

**National Centre for Antarctic & Ocean Research** and **Visva-Bharati University** **India** and **Antarctica**
*Principal Investigator* December 2007 - December 2008

- Defended my own proposal, as a principal investigator, to the Govt. of India and secured a position in a 61-member team of 27$^{th}$ Indian Scientific Expedition to Antarctica with a total budget of $53 million. Project title: "Assessment of Microbial Biodiversity of Antarctic Soil for future application." Scientific expeditioner to Antarctica (Schirmacher Oasis and Larsemann Hills); Managed logistics for the collection of samples from Antarctica, managed documentation and reported the findings of the project to NCAOR.

## EDUCATION

**Master of Business Administration (MBA),** Deakin Business School, Deakin University **Australia, 2023**
I have successfully completed the courses and received

**Doctor of Philosophy (PhD)** in Biology, Georg-August University of Goettingen **Germany, 2016**
Thesis title: *"Prokaryotic Biodiversity of Lonar Meteorite Crater Soda Lake Sediment and Community Dynamics During Microenvironmental pH Homeostasis by Metagenomics."* Doctor of Philosophy with ***cum laude***.

**Master of Science (MSc)** in Botany, Visva-Bharati University **India, 2007**
I have secured **rank 7$^{th}$** (first class), specialised in Mycology and Plant Pathology from a Central University directly administered by the Government of India.

**Bachelor of Science (BSc Honours)** in Botany (Life Science), Visva-Bharati University **India, 2005**
I have secured **rank 5$^{th}$** (first-class) with distinction in Chemistry and Physics as subsidiary subjects from a Central University directly administered by the Government of India.

## PROFESSIONAL MEMBERSHIPS & AFFILIATIONS

- International Organisation for Biological Control (**IOBC**)
- The British Mycological Society (**BMS**)
- Association of Microbiologists of India (**AMI**)