

CURRICULLUM VITAE

SWATILEKHA MAITI

E-Mail: lekha123@gmail.com

Mobile: +91-9775551293

Address for Correspondence:

Department of Physiology
Garhbeta College, Garhbeta
Paschim Medinipur, West Bengal-722127

Objective:

To pursue a career in Accademic-Teaching for helping students to bring out their best performance.

Awards and Fellowships:

- Awarded Vidyasagar University Gold medal for standing first in order of merit in B.Sc. examination of 2003.
- One year and 6 months (2006-2007) As Project assistant in skin Tissue engineering project sponcered by DBT. Two year JRF (2008-2009) and One year SRF (2010) under the project entitled Exploring the immunomodulatory potential of mushroom glucan/proteoglucan as biological response modifier (BRM) funded by DST).
- UGC-DS Kothari Post doctoral fellowship 2012-till date.

Educational Qualification:

Exam passed	Subject	University	Year	Div (%)
PhD	Medical Sciences and Technology	Indian Institute of Technology, Kharagpur, India	2011	Awarded
M. Sc.	Human Physiology	Vidyasagar University	2005	I (69)
B. Sc.	Human Physiology (Hons.)	Vidyasagar University	2003	I(68.89) Distinction
Higher Secondary	Science	WBCHSE, West Bengal	2000	I (68.6)
Secondary	General	WBBSE, West Bengal	1998	I (81.1)

Teaching experience:

- Currently teaching Immunology as Teaching Assistantship at Botany Department, Calcutta University from 2013.

Research Experience:

- Post-Doctoral Research: Effect of silver nanoparticles on cell survival /death signal pathway of human PBMC/ whole blood in vitro (01/02/2012-till Date).
Supervisor: Dr. Anita Mukherjee, Head of the department, Department of Genetics, University of Calcutta.
- Doctoral Study: Thesis title- A bioactive protein fraction from edible mushroom *Pleurotus ostreatus* (Jaqc.) P. Kumm. and its efficacy in cancer therapy.
Supervisors: Dr. M. Mandal, Associate Professor, School of Medical Science and Technology, IIT Kharagpur and Dr. T. K. Maiti, Professor, Department of Biotechnology, IIT Kharagpur.
- One year M. Sc dissertation Project (2004-05)

Conferences/Seminars attended / Workshop/ Publication:

- **Poster presentation**

1. Sanjaya K. Mallick, Sujit K Bhutia, **Swatilekha Maiti**, Tapas K Maiti, Immunomodulatory and anticancer glucan from *Astraeus hygrometricus*. 34th Indian Immunology Society (IIS) Conference (2007).

2. **Swatilekha Maiti**, Sujit K Bhutia, Sanjaya K Mallick, Alok Kumar, Niyati Khadgi, Tapas K Maiti. Exploring the antiproliferative effect of edible mushroom fruiting body derived proteins on different tumor cell lines. 26th Annual Convention of IACR & International Symposium on translational research in cancer (2007).

- **Oral presentation**

Swatilekha Maiti. Immunotoxic effects of pesticide used in potato cultivation at Paschim Medinipur in animal model. International Conference On Contemporary Innovative Issues and Future Challenges in Physiology and Allied Sciences 2020

- **Workshop**

1. 10th Indo-US cytometry workshop, ILS, Bhubaneswar, 16-20th February, 2009.
2. International Workshop on Application of Flow Cytometry and Imaging in Cell Biology and Nano-Biotechnology, 11-18th August, 2012
3. 13th Indo-US cytometry workshop, University of Calcutta, 12-17th October, 2012
4. Training Course on Cell sorting by Flow Cytometry (BDFACSAria III) 25-27th April, 2012

Publications:

1. S Shah, D Ghosh, S K Mallick, I Sarangi, S K Bhutia, **S Maiti**, T K Maiti (2007). Immunomodulatory and Antitumor Activities of Water-Soluble Proteoglycan Isolated from the Fruiting Bodies of Culinary-Medicinal Oyster Mushroom *Pleurotus ostreatus* (Jacq.: Fr.) P. Kumm. (Agaricomycetidae), *International Journal of Medicinal Mushrooms*, 9: 123-138.

2. **S Maiti**, S K Bhutia, S K Mallick, A Kumar, N Khargi, T K Maiti (2008). Antiproliferative and immunostimulatory protein fraction from edible mushroom. *Environmental Toxicology and Pharmacology*, 26: 187-191.

3. S K Bhutia, S K Mallick, **S Maiti**, T K Maiti (2008). Antitumor and proapoptotic effect of Abrus agglutinin derived peptide in Dalton's Lymphoma tumor model. *Chemico-Biological Interaction*, 174: 11-18.

4. S K Bhutia, S K Mallick, **S Maiti**, D Mishra T K Maiti. (2009). Abrus abrin derived peptides induce mitochondrial apoptosis in HeLa cells. *Cell Biology international*, 33: 720-727.

5. S K Bhutia, S K Mallick, **S Maiti** and T K. Maiti. (2009). Inhibitory effect of Abrus abrin derived peptide fraction against Dalton's Lymphoma ascites model. *Phytomedicine*, 16: 377-385.

6. S K Mallick, **S Maiti**, S K Bhutia, T K Maiti (2010) Antitumor properties of a heteroglucan isolated from *Astraeus hygrometricus* on Daltons lymphoma bearing mouse. *Food and Chemical Toxicology*. (doi.org/10.1016/j.fct.2010.05.013).

7. S K Mallick, **S Maiti**, S K Bhutia, Tapas K Maiti (2010) Immunostimulatory properties of a polysaccharide isolated from *Astraeus hygrometricus*. *Journal of Medicinal Food*, 13: 665- 672.

8. S K Sahu, **S Maiti**, T K Maiti, S K Ghosh, P Pramanik (2010). Hydrophobically modified carboxymethyl chitosan nanoparticles targeted delivery of paclitaxel. *Journal of Drug Targeting*. (doi:10.3109/10611861003733987).

9. S K Sahu, **S Maiti**, T K Maiti, S K Ghosh, P Pramanik (2010). Folate-Decorated Succinylchitosan Nanoparticles Conjugated with Doxorubicin for Targeted Drug Delivery. *Macromolecular Biosciences*. (doi: 10.1002/mabi.201000353).

10. B Dey, S K. Bhunia, K K. Maity, S Patra, S Mandal, **S Maiti**, T K. Maiti, S R. Sikdar, S S. Islam (2010). Chemical analysis of an immunoenhancing water-soluble polysaccharide of an edible mushroom, *Pleurotus florida* blue variant. *Carbohydrate Research*, 345: 2736-2741.

11. S K Bhunia, B Dey, K K Maity, S Patra, S Mandal, **S Maiti**, T K Maiti, S R Sikdar, S S Islam (2011) Isolation and characterization of an immunoenhancing glucan from alkaline extract of an edible mushroom, *Lentinus squarrosulus* (Mont.) Singer. *Carbohydrate Research* 346: 2039–2044.

12. **S Maiti**, S K Mallick, S K Bhutia, B Behera, M Mandal, T K Maiti (2011). Antitumor effect of culinary-medicinal oyster mushroom, *Pleurotus ostreatus* (Jacq.: Fr.) P. Kumm., derived protein fraction on tumor-bearing mice models. *International Journal of Medicinal Mushrooms*, 13:427-40.

13. S K Mallick, **S Maiti**, S K Bhutia, T K Maiti (2011). Activation of RAW 264.7 cells by *Astraeus hygrometricus*-derived heteroglucan through MAP kinase pathway. *Cell Biology International*, 35: 617–621.

14. S Mohapatra, S R Rout, **S Maiti**, TK. Maiti, A B. Panda (2011). Monodisperse mesoporous cobalt ferrite nanoparticles: synthesis and application in targeted delivery of antitumor drugs. *Journal of Material Chemistry*, 21:9185-9193.

15. I Banerjee, D Mishra, T Das, S Maiti and T K Maiti (2011). Caprine (Goat) collagen. A potential biomaterial for skin tissue engineering *Journal of Biomaterials Science*, Polymer edition in press.

16. K Maity, E Kar (Mandal), S Maity, S K. Gantait, D Das, **S Maiti**, T K. Maiti, S R. Sikdar, S S. Islam (2011). Structural characterization and study of immunoenhancing and antioxidant property of a novel polysaccharide isolated from the aqueous extract of a somatic hybrid mushroom of *Pleurotus florida* and *Calocybe indica* variety APK2. *International Journal of Biological Macromolecules*, 48: 304-310.

17. K K. Maity, S Patra, B Dey, S K. Bhunia, S Mandal, D Das, D K. Majumdar, **S Maiti**, T K. Maiti, Syed S. Islam (2011). A heteropolysaccharide from aqueous extract of an edible mushroom, *Pleurotus ostreatus* cultivar: structural and biological studies. *Carbohydrate Research*, 346: 366-372.

18. S K Sahu, **S Maiti**, A Pramanik, S K Ghosh, P Pramanik (2012). Controlling the thickness of polymeric shell on magnetic nanoparticles loaded with doxorubicin for targeted delivery and MRI contrast agent. *Carbohydrate Polymers* 87: 2593– 2604.

19. S K Bhunia, B Dey, K K. Maity, S Patra, S Mandal, **S Maiti**, T K. Maiti, S R. Sikdar, S S. Islam (2012). Structural characterization of an immunoenhancing heteroglycan isolated from an aqueous extract of an edible mushroom, *Lentinus squarrosulus* (Mont.) Singer. *Carbohydrate Research*, 345: 2542-2549.

20. S K Bhunia, B Dey, K K Maity, S Patra, S Mandal, **S Maiti**, T K Maiti, S R Sikdar, Sy S Islm (2012). Heteroglycan from an alkaline extract of a somatic hybrid mushroom

(PfloVv1aFB) of *Pleurotus florida* and *Volvariella volvacea*: structural characterization and study of immunoenhancing properties. *Carbohydrate Research* 354 : 110–115.

21. D Das, S Maiti, T K Maiti, S S Islam (2013). A new arabinoxylan from green leaves of *Litsea glutinosa* (Lauraceae): Structural and biological studies. *Carbohydrate Polymers* 92: 1243– 1248.

22. S Maiti, S Parua S, D K Nandi, K C Mondal, S Samanta (2019). Hepatotoxic effect of Rifampicin as an Anti-Tuberculosis drug on male Albino rat *Journal of Drug Delivery and Therapeutics*; 9(3):26-32.

23. S Maiti, S K Bhutia, S K Mallick, D Mishra, M Mandal, T K Maiti. Induction of apoptosis in HeLa cell by mushroom cytotoxic protein from *Pleurotus ostreatus*. (Communicated)

Technical skills:

Flow Cytometry:

Flow cytometry on FACSCalibur, FACS AriaIII, FACS Verse for Immunophenotyping, Cell cycle analysis and apoptosis study, Funtinal assay, cell shorting. Softwares used: Cell quest Pro, Mod-Fit, FACS Diva and Flow Jo.

Microscopy:

Light and phase contrast microscopy, Fluorescence microscopy on Leica and Olympus microscope, Confocal microscopy with Olympus FV1000.

Immunology and animal cell culture:

Preparation of Thymocytes, Splenocytes, Bone Marrow cells, peritoneal & splenic Macrophage, Cell viability & Proliferation assay, Assay for Reactive Nitrogen Intermediate, Colony forming Assay, Immunization technique for raising polyclonal antibody in Mice & Rabbit, Immunoprecipitation techniques, Tumor transplantation & propagation (Daltons Lymphoma and L929 cell line), Cytokine bioassay, ELISA.

Animal model studied:

Comfortable with mice handling (C57 BL6 and Swiss albino). In vivo tumor maintenance and transplantation of various cancerous cells (Daltons Lymphoma, Sarcoma-180, B16 melanoma).

Molecular Biology:

Genomic & Plasmid DNA purification, Western Blotting, Electrophoresis- Agarose & PAGE.

Biochemistry:

Affinity Chromatography, GLC, Gel filtration, Native & SDS-PAGE, Quantitation biomolecules,

Toxicology and Apoptosis Assay: Toxicity analysis of different biomolecules like polysaccharides, proteins, toxin and nanoparticles in in vitro (cell lines) and in vivo (mice model). Evaluation of apoptotic cells by PI and AnnexinV staining. Studied signaling pathways in apoptosis and cytotoxicity. Percent DNA Fragmentation Oligonucleosomal DNA ladder.

Personal Information:

Date of Birth : 2nd February, 1983.
Sex : Female.
Marital Status : Married.
Nationality : Indian.
Language knowledge: English, Hindi and Bengali.