

FACULTY MEMBER ACADEMIC PROFILE

1. **Name of the Faculty member:** SOMANJANA KHATUA
2. **Designation:** Assistant Professor in Botany (W.B.E.S.)
3. **Qualification:** M.Sc. (University of Calcutta)
4. **Specialization:** Genetics, Molecular Biology, Plant Biotechnology
5. **E-mail address:** somanjana.khatua4@gmail.com
6. **Date of Joining in W.B.E.S.:** 10.03.2015
7. **Date of Joining in this College:** 10.03.2015
8. **Total Teaching experience in College level:** 3+ years
9. **Research interests:** Pharmaceutics, Immunology, Functional Foods, Mycology
10. **Title of thesis (Ph.D.) with year:** N.A. Pursuing Ph.D. from University of Calcutta
11. **Research guidance:** Nil
12. **Research Projects (Completed and ongoing):** Nil
13. **List of publications:**

**Published papers in Journals:**

1. "A heteroglycan from the mycelia of *Pleurotus ostreatus*: Structure determination and study of antioxidant properties", S. Patra, P. Patra, K.K. Maity, S. Mandal, S.K. Bhunia, B. Dey, K.S.P. Devi, **S. Khatua**, K. Acharya, T.K. Maiti and S.S. Islam, *Carbohydrate Research*, **2013**, 368, 16-21 [[ISSN 0008-6215](#); **IF: 2.3**].
2. "Mushroom as the potential source of new generation of antioxidant: a review", **S. Khatua**, S. Paul and K. Acharya, *Research Journal of Pharmacy and Technology*, **2013**, 6(5), 496-505 [[ISSN 0974-3618](#); **IF: 0.18**].
3. "Free radical scavenging and NOS activation properties of water soluble crude polysaccharide from *Pleurotus ostreatus*", P. Mitra, **S. Khatua** and K. Acharya, *Asian Journal of Pharmaceutical and Clinical Research*, **2013**, 6(3), 67-70 [[ISSN 0974-2441](#); **IF: 0.7**].
4. "Polysaccharide-rich fraction of *Termitomyces eurhizus* accelerate healing of indomethacin induced gastric ulcer in mice", A. Chatterjee, **S. Khatua**, S. Chatterjee, S. Mukherjee, A. Mukherjee, S. Paloi, K. Acharya and S.K. Bandyopadhyay, *Glycoconjugate Journal*, **2013**, 30(8), 759-768 [[ISSN 0282-0080](#); **IF: 2.1**].
5. "Antioxidant and nitric oxide synthase activation properties of water soluble polysaccharides from *Pleurotus florida*", S. Saha, **S. Khatua**, S. Paloi and K. Acharya, *International Journal of Green Pharmacy*, **2013**, 7, 182-188 [[ISSN 0973-8258](#); **IF: 1.1**].
6. "Antioxidant and free radical scavenging capacity of phenolic extract of *Russula laurocerasi*", **S. Khatua**, T. Roy and K. Acharya, *Asian Journal of Pharmacy and Technology*, **2013**, 6(4), 156-160 [[ISSN 2231-5705](#); **IF: 0.5**].
7. "Evaluation of antioxidative activity of ethanolic extract from *Russula delica*: an *in vitro* study", **S. Khatua**, S. Paul, A. Chatterjee, D. Ray, A. Roy and K. Acharya, *Journal of Chemical and Pharmaceutical Research*, **2013**, 5(9), 100-107 [[ISSN 0974-2115](#); **IF: 0.73**].

8. "Fraction of *Russula delica* shows *in vitro* antioxidant property influenced by polyphenols", S. Khatua, S. Paul, A. Chatterjee, D. Ray, A. Roy and K. Acharya, *International Journal of Pharmaceutical Sciences Review and Research*, **2013**, 23(2), 368-373 [ISSN 0976-044X; IF: 2.54].
9. "Antioxidant and immunostimulant β -glucan from edible mushroom *Russula albonigra* (Krombh.) Fr.", A.K. Nandi, S. Samanta, S. Maitya, I.K. Sena, S. Khatua, K.S.P. Devi, K. Acharya, T.K. Maiti and S.S. Islam, *Carbohydrate polymers*, **2014**, 99, 774-782 [ISSN 0144-8617; IF: 3.479].
10. "Selective inhibition of *Leishmania donovani* by active fractions of wild mushrooms used in folklore of Santal tribal population in India: An *in vitro* exploration for new leads against parasitic protozoans", S. Mallick, A. Dutta, S. Dey, J. Ghosh, D. Mukherjee, S.S. Sultana, S. Mandal, S. Paloi, S. Khatua, K. Acharya and C. Pal, *Experimental Parasitology*, **2014**, 138, 9-17 [ISSN 0014-4894; IF: 2.154].
11. "Antioxidant and antimicrobial potentiality of quantitatively analysed ethanol extract from *Macrocybe crassa*", S. Khatua and K. Acharya, *International Journal of Pharmaceutical Sciences Review and Research*, **2014**, 29(2), 53-60 [ISSN 0976-044X; IF: 2.54].
12. "Mycochemicals and medicinal prospects of phenol rich fraction from *Macrocybe crassum*", S. Khatua and K. Acharya, *Der Pharmacia Lettre*, **2014**, 6(5), 330-338 [ISSN 0975-5071; IF: 0.53].
13. "Pectic polysaccharide from the green fruits of *Momordica charantia* (Karela): structural characterization and study of immunoenhancing and antioxidant properties", B.C. Panda, S. Mondal, K.S.P. Devi, T.K. Maiti, S. Khatua, K. Acharya and S.S. Islam, *Carbohydrate Research*, January, **2015**, 401, 24-31 [ISSN 0008-6215; IF 1.966].
14. "*Russula senecis*: A delicacy among the tribes of West Bengal", S. Khatua, A.K. Dutta and K. Acharya, *Peer J*, March, **2015**, 3, e810 [ISSN 2167-8359; IF: 2.18].
15. "*In vitro* protective ability of *Ramaria aurea* against free radical and identification of main phenolic acids by HPLC", S. Khatua, P. Mitra, S. Chandra and K. Acharya, *Journal of Herbs, Spices and Medicinal Plants*, June, **2015**, 21, 380-391 [ISSN 1049-6475; IF: 0.52].
16. "Studies on antioxidative and immunostimulating fucogalactan of the edible mushroom *Macrolepiota dolichaula*", S. Samanta, A.K. Nandi, I.K. Sen, P. Maity, M. Pattanayak, K.S.P. Devi, S. Khatua, T.K. Maiti, K. Acharya and S.S. Islam, *Carbohydrate Research*, September, **2015**, 413(2), 22-29 [ISSN 0008-6215; IF: 1.966].
17. "Influence of a blend of guar gum and poly (vinyl alcohol) on long term stability, antibacterial and antioxidant efficacies of silver nanoparticles", T. Das, S. Yeasmin, S. Khatua, K. Acharya and A. Bandyopadhyay, *RSC Advances*, June, **2015**, 5, 54059-54069 [ISSN 2046-2069; IF: 3.708].
18. "Pharmacognostic standardization of *Macrocybe crassa*: an imminent medicinal mushroom", K. Acharya, S. Khatua and S. Sahid, *Research Journal of Pharmacy and Technology*, July, **2015**, 8(7) 860-866 [ISSN 0974-3618; IF: 0.18].
19. "Pharmacognostic standardization of *Grifola frondosa*: A well-studied medicinal mushroom", K. Acharya, I. Bera, S. Khatua and M. Rai, *Der Pharmacia Letter*, January, **2015**, 7(7), 72-78 [ISSN 0975-5071; IF: 0.53].
20. "Pharmacognostic standardization and antioxidant potentiality of an edible mushroom, *Laetiporus sulphureus*", K. Acharya, S. Ghosh, S. Khatua and P. Mitra, *Journal of Consumer Protection and Food Safety*, February, **2016**, 11(1), 33-42 [ISSN 1661-5751; IF: 0.719].
21. "Influence of extraction parameters on physico-chemical characters and antioxidant activity of water soluble polysaccharides from *Macrocybe gigantea* (Massee) Pegler & Lodge", S. Khatua

- and K. Acharya, *Journal of Food Science and Technology*, April, **2016**, 53(4), 1878-1888 [ISSN 0022-1155; **IF: 2.2**].
22. “*Tricholoma giganteum* ameliorates benzo[a]pyrene-induced lung cancer in mice”, S. Chatterjee, A. Chatterjee, S. Chandra, **S. Khatua**, G. K. Saha and K. Acharya, *International Journal of Current Pharmaceutical Science Review and Research*, November, **2016**, 7(5), 283-290 [ISSN 0976-822X; **IF: 0.3**].
 23. “Exploring a new edible mushroom *Ramaria subalpina*: Chemical characterization and antioxidant activity”, K. Acharya, K. Das, S. Paloi, A. K. Dutta, M. E. Hembrom, **S. Khatua** and A. Parihar, *Pharmacognosy Journal*, January, **2017**, 9(1), 30-34 [ISSN 0975-3575; **IF: 0.8**].
 24. “Pharmacognostic standardization and free radical scavenging evaluation of *Meripilus giganteus* (Pers.) P. Karst., a potential medicinal mushroom”, K. Acharya, **S. Khatua** and S. Pal, *International Journal of Current Pharmaceutical Review and Research*, March, **2017**, 8(1), 7-12 [ISSN 0976-822X; **IF: 0.3**].
 25. “Quality assessment and antioxidant study of *Pleurotus djamor* (Rumph. ex Fr.) Boedijn”, K. Acharya, **S. Khatua** and S. Ray, *Journal of Applied Pharmaceutical Science*, June, **2017**, 7(2), 83-92 [ISSN 2231-3354; **IF: 0.62**].
 26. “A simplified method for microtiter based analysis of *in vitro* antioxidant activity”, **S. Khatua**, S. Ghosh and K. Acharya, *Asian Journal of Pharmaceutics*, July, **2017**, 11(2), S327–S335 [ISSN 0973-8398; **IF: 0.6**].
 27. “Introducing a novel mushroom from mycophagy community with emphasis on biomedical potency”, **S. Khatua**, K. Dutta, S. Chandra, S. Paloi, K. Das and K. Acharya, *PloS One*, May, **2017**, 12(5), e0178050 [ISSN 1932-6203; **IF: 3.1**].
 28. “Alkaline extractive crude polysaccharide from *Russula senecis* possesses antioxidant potential and stimulates innate immunity response”, **S. Khatua** and K. Acharya, *Journal of Pharmacy and Pharmacology*, December, **2017**, 69(12), 1817–1828 [ISSN 2042-7158; **IF 2.4**].
 29. “Chemical composition and biological activities of methanol extract from *Macrocybe lobayensis*”, **S. Khatua**, S. Ghosh and K. Acharya, *Journal of Applied Pharmaceutical Science*, October, **2017**, 7(10), 144-151 [ISSN 2231-3354; **IF 0.7**].
 30. “*Laetiporus sulphureus* (Bull.: Fr.) Murr. as food as medicine”, **S. Khatua**, S. Ghosh, and K. Acharya, *Pharmacognosy Journal*, November, **2017**, 9(6), s1-s15 [ISSN 0975-3575; **IF 0.59**].
14. **Membership of Learned Societies/ Editorial Boards, etc.:**
Member of Indian Science Congress
 15. **Patents:** Nil
 16. **Awards:**
 1. Received **INSPIRE** (Innovation in Science Pursuit for Inspired Research) **Fellowship** from Department of Science and Technology, New Delhi for securing **First class First position** at **M.Sc. level (University of Calcutta)** in **2010**.
 2. Qualified National Eligibility Test (NET) twice (LS in **2010** and UGC-JRF in **2011**).

17. Other notable activities:

1. Supervised **Educational Excursion** of **34 students** of **UG 2nd Year Botany (Hons)** to Acharya Jagadish Chandra Bose **Indian Botanic Garden** on **1st March, 2016**.
2. Supervised **Educational Excursion** of **26 students** of **UG 2nd Year Botany (Hons)** to Acharya Jagadish Chandra Bose **Indian Botanic Garden** on **14th December, 2016**.
3. Supervised **Departmental Excursion** of **40 students** of **UG 1st Year, 2nd Year and 3rd Year (Hons)** to **Sundarban and adjoining areas** on and from **21st to 23rd February, 2017**.
4. Supervised **Departmental Excursion** of **34 students** of **UG 1st Year, 2nd Year and 3rd Year (Hons)** to **Jaldapara Wildlife Sanctuary and adjoining areas** on and from **15th to 19th December, 2017**.

18. Participation in Seminars/Symposia/Conferences/Workshops:

1. **Participated** in **National Conference** on '*New Frontiers in Medicinal Plant Research*' organized by Department of Botany, **Sikkim University** on **3rd-5th October, 2013**.
2. **Participated** in **Hands-on-Training programme** on '*HPTLC, HPLC, GC and GCMS instruments*' organized by Department of Botany, University of Calcutta on **26th-27th December, 2013**.
3. **Participated** in **International Seminar** on '*Scope of Microbial Biotechnology*' organized by Department of Botany, Ramakrishna Mission Vivekananda Centenary College on **8th December, 2014**.
4. **Participated** in **National Seminar** on '*Molecular Aspects of Human Diseases*' organized by Department of Zoology, University of Calcutta on **31st January, 2015**.
5. **Presented a Poster** entitled "*A novel mushroom; A new hope for functional food*" in the **International Conference** on '*Translational Research and Workshop on Flow Cytometry*' organized by Indian Society of Translational Research and Bose Institute, Kolkata, on **16-18th April, 2016**.
6. **Presented a paper (Oral Presentation)** entitled "*Exploring immune-modulatory and antioxidant effect of three polysaccharide rich fractions from a novel mushroom*" in the **National Conference** on '*Fungal Biotechnology and 43rd Annual Meeting of the Mycological Society of India*' organized by Birla Institute of Scientific Research, Jaipur, Rajasthan on **16-18th November, 2016**.
7. **Presented a paper (Oral Presentation)** entitled "*The influence of extraction in immune-stimulatory potential of an ethnic myco-food, Russula senecis*" in a **National Seminar** on '*Impact of Changing Environment on Plants, Microbes and their Interactions*' organized by ISMPP and Department of Botany, Visva-Bharati University on **13-14th September, 2017**.
8. **Presented a Poster** entitled "*Unveiling the signaling pathway behind immune-stimulatory efficacy of crude polysaccharide from a wild edible mushroom*" in **International Conference** on '*Contemporary Health Issues and Environmental Impact*' organized by Department of Zoology, Sarojini Naidu College for Women held on **30th November, 2017**.