UNIVERSITY OF CALCUTTA

FACULTY ACADEMIC PROFILE/ CV

Full name of the faculty member: Dr. Susmita Das

Designation: Assistant Professor in Botany (Stage – II)

Specialisation : Phytochemistry and Pharmacognosy

Contact information :

13, Raja Sew Bux Bagla Lane, Kolkata-700002, West Bengal, India
Email: susouravipar@gmail.com
Contact Number: 9433233639 (Mobile)

Academic qualification:

College/ university from which the degree was obtained	Abbreviation of the degree
University of Calcutta	B. Sc.
University of Calcutta	M. Sc.
Annamalai University	M. Phil
University of Calcutta	Ph. D

Positions held/ holding:

i) Served Vidyasagar College, Kolkata from 16 th November, 2006 to 8 th October, 2015 as Assistant Professor

ii) From 9 th October, 2015 to till date as Assistant Professor in Department of Botany, University of Calcutta

Research interests:

- Determination of bioactive compounds in indigenous food plants of different parts of India.
- Identification of volatile compounds in aromatic plants
- Identification of bioactive metabolites in plants using metabolomics study
- Determination of biomarkers in different biotic and abiotic stress responses to crop plants

Research guidance:

Number of researchers awarded M.Phil / Ph.D degrees :

Number of researchers pursuing M.Phil / Ph.D : 4

Select list of publications:

a) Journals:

1. Possible mechanism of bamboo shoots (*Bambusa balcooa*) induced thyroid disruption – An *in vitro* study (2020). Human and Experimental Toxicology. D. Sarkar, A. K. Chandra, S. Chattopadyay, M. Biswas, **S. Das**, L. H. Singh. I. Ray https://doi.org/10.1177/0960327120958037(Impact Factor: 2.067)
2. GC-MS –based profiling of non-polar metabolites and chemometric study of fruits of Capsicum species and landraces at different stages of ripening (2020). Journal of herbs, spices and medicinal plants. Volume 26, Issue 2, pp.126-147. Mamita Debnath, Bratati De, **Susmita Das**. (Impact Factor: 0.630)
3. Metabolite profiling and in-vitro colon cancer protective activity of Cycas revoluta cone extract (2020). Natural Product Research. Volume 34, Issue 4, pp. 599-603. Samit Bera, Bhaskar Das, Arnab De, Atish Barua, **Susmita Das**, Bratati De, Amalesh Samanta. (Impact Factor: 2.158)
4. Phytochemical composition, β-glucuronidase inhibition, and antioxidant properties of two fractions of Piper betle leaf aqueous extract (2019). Journal of Food Biochemistry.Volume 43, Issue 12, e13048, 1-12.Swagata Karak, **Susmita Das**, Moumita Biswas, Atreyi Choudhury, Mainak Dutta, Koel Chaudhury, Bratati De. (Impact Factor: 1.662)
5. Profiling non-polar terpenes of rhizomes for distinguishing some Indian *Curcuma* species (2019). Journal of Applied Research on Medicinal and Aromatic Plants. Volume 13,

100207. Bratati De, Swagata Karak, **Susmita Das**, Sainiara Begum, Poulami Gupta, Ipsita De Pradhan, Jayashree Acharya, Elavarasan Subramani, Koel Choudhury. (Impact Factor: 1.857)

6. Thin Layer Chromatographic Characterization of Carotenoid Isolates in Sugar Date Palm (Phoenix sylvestris) Fruit Epicarp and Inflorescence Axis (2017). International Journal of Pharmacognosy and Phytochemical Research. Volume 9, Issue 5, pp. 680-684. **Susmita Das**, Poulami Gupta, Bratati De. (Impact Factor: 1.279)
7. Metabolite profiling, antioxidant activity, and glycosidase inhibition property of the mesocarp tissue extracts of sugar date palm [Phoenix sylvestris (L.) Roxb.] fruits (2017).International Journal of Food Properties. Volume 20, Issue 12, pp. 2982–2993. **Susmita Das,** Jayshree Acharya, Bratati De. (Impact Factor: 1.808)
8. Sansevieria roxburghiana Schult. &Schult. F. (Family: Asparagaceae) Attenuates Type 2 Diabetes and Its Associated Cardiomyopathy (2016). PLoS One. Volume 11, Issue 11, pp. 1-24. Niloy Bhattacharjee, Ritu Khanra, Tarun K. Dua, **Susmita Das,** Bratati De, M. Zia-Ul-Haq, Vincenzo De Feo , Saikat Dewanjee (Impact Factor: 2.870)
9. Metabolomic and chemometric study of Achrassapota L. fruit extracts for identification of metabolites contributing to the inhibition of α-amylase and α-glucosidase (2016). Eur Food Res Technol., Volume 242, Issue 5, pp 733-743. **Susmita Das** · Mainak Dutta · KoelChaudhury · Bratati De. (Impact Factor: 2.341).
10. Antioxidant, anti-acetylcholinesterase and anti-glycosidase properties of three species of Swertia, their xanthones and amarogentin: A comparative study (2015). Pharmacognosy Journal Volume 7, Issue 2, pp. 117-123.Gargi Nag, Sukriti Das, **Susmita Das**, Suvra Mandal, Bratati De. (Impact Factor: 0.82)
11. Gas Chromatography-Mass Spectrometry Based Metabolic Profiling of Onion Varieties of India (2015). Sukriti Das, **Susmita Das**, Plaban Bhattacharya, Achintya Saha and Bratati De, Current Metabolomics, 3, 32-41. (Impact Factor: 0.8)
12. Analyzing changes in metabolite profile during postharvest ripening in Achras sapota fruits: GC-MS based metabolomics approach (2015), International Food Research Journal Volume 22, Issue 6, pp. 2288-2293. **Susmita Das** and Bratati De., (Impact factor: 0.662)

13. Acetylcholinesterase inhibitory potentiality of some minor fruits of West Bengal, India (2015). Journal of Pharmacy And Bioallied Sciences. **Susmita Das**, Bratati De. DOI:10.4103/0975-7406.171737.
14. Evaluation of Angiotensin I-Converting Enzyme (ACE) inhibitory potential of some underutilized indigenous fruits of West Bengal using an in vitro model (2013), Fruits, Volume 68, Issue 6, pp. 499-506. **Susmita Das**, Bratati De. (Impact Factor : 0.8).
15. In Vitro Inhibition of Key Enzymes Related to Diabetes by the Aqueous Extracts of Some Fruits of West Bengal, India (2012). Current Nutrition & Food Science, Volume 8, Issue pp. 19-24. **Susmita Das**, Sukriti Das and Bratati De. (Impact Factor: 0.68)
16. Acetylcholinesterase Inhibitory Property of Piper betle L. Leaves (2012). **Susmita Das** and Bratati De. Pharmacologyonline1: 700-704. (Impact Factor: 0.310)

Presented papers in National and International conferences

GC-MS based profiling of non-polar metabolites and chemometric study to differentiate fruits of Capsicum species and landraces of West Bengal, India at different stages of ripeningin the 16th Asian Symposium on Medicinal Plants, Spices and other Natural products (ASOMPS XVI), from12 th -14 th December, 2018, Colombo, Sri Lanka.

Evaluation and identification of bioactive fractions and their metabolites targeting management of type-II diabetes from *Phoenix sylvestris* fruit pericarp using *in vitro* models. International Conference on insight to PlantBiology in the Modern Era, 8th -10th February, 2017, Bose Institute, Kolkata, West Bengal, India.

Acetylcholinesterase inhibitory potentiality of six indigenous fruits of West Bengal, India inNational Seminar on Regulatory and Quality Aspects of Herbal Drugs and Botanicals, February 1, 2014, Convention Center, Hamdard University, New Delhi.

Metabolomics and chemometrics study to monitor the biochemical changes and α – amylase inhibitory activity during post-harvest ripening in *Achras sapota* L. Fruits in 9^{th} Internatinal Conference of the Metabolomics Society, Glasgow, Scotland, UK from 1^{st} – 4^{th} July, 2013.

Profiling free and wall bound metabolites of *Phoenix sylvestris* fruitin 9^{th} International Conference of the Metabolomics Society, Glasgow, Scotland, UK from 1^{st} – 4^{th} July, 2013.

Changes in the Glycosidic Inhibitory Properties During Storage of *Achras sapota* L. Fruits in 3rd Indian National seminar of Asian Network of Research on Antidiabetic Plants (ANRAP), Prevention and Management of Diabetes: Prospects and Challenges**,** 14-16 September 2012, R.G.Kar Medical College, Kolkata, India

Antihypertensive Potential of Some Indigenous Fruits of West Bengal, India in **International Symposium on Minor Fruits and Medicinal Plants for Health and Ecological Security,** at Bidhan Chandra Krishi Viswavidyalaya, Kalyani, West Bengal, India,19 th– 22nd September, 2011.

Enzyme inhibitory properties of some plant parts in National Seminar on Biotechnology in Pharmaceutical Sciences: Recent Avenues, at Jadavpur University, Kolkata, 2nd& 3rd December, 2011.

Projects:
Ongoing projects :

Sl No.	Title	Funding Agency	Date of Commencement	Duration
1.	De-replication of bioactive constituents in Piper species: Metabolomics approach (Co-PI)	DBT, Govt. of West Bengal	2018	3 years
2.	A Study on Memory Improving, Anti Skin-Aging and Anti-Melanogenic Potential and Metabolome Classification of Six *Ocimum* species as Determined via GC/MS and Chemometric Tools. (PI)	Science & Technology and Biotechnology DEPARTMENT, Govt. of West Bengal	2019	2 years

Awards :

Awarded Junior Research Fellowship (JRF) and Eligibilty for Lectureship award from Council for Scientific and Industrial Research, INDIA - National Entrance Test (NET) in Life Sciences *December,2002.*

Invited to take **Shyama Prasad Mukherjee (SPM) Fellowship** Test by **Council for Scientific and Industrial Research, INDIA** for securing top 20% marks in CSIR - NET in *July, 2003.*

Teacher Fellowship Award under College **Faculty Development Programme** by UGC *July, 2011.*

Awarded 1st prize as the **best oral presentation** by Asian Network of Research on Antidiabetic Plants (**ANRAP**), Prevention and Management of Diabetes: Prospects and Challenges**,** September, 2012, R.G.Kar Medical College, Kolkata, India.

Travel Grant Award (an amount of Rs. 1,43,729/-) by UGC to visit Scotland, to present scientific paper in 9thInternational Conference of the Metabolomics Society, Glasgow, Scotland, UK from 1st – 4th July, 2013.

Awarded "Certificate of Appreciation" for the paper entitled " Thin Layer Chromatographic Characterization of Carotenoid Isolates in Sugar Date Palm (*Phoenix sylvestris*) Fruit Epicarp and Inflorescence Axis" In the BEST RESEARCH PAPERS ON APPLICATION OF TLC/ HP-TLC IN PHARMA, HERBAL AND OTHER CHEMICAL ANALYSIS category of Dr. P. D. Sethi Memorial Annual National Awards 2017.

Membership of Learned Societies:

1. Member of The Botanical Society of Bengal, Kolkata.

3. Member of International Metabolomics Society

Research groups:

Name of Scholars :

1. Miss Mamita Debnath (JRF, WBDBT)

2. Miss Sreerupa Sarkar (UGC-NET-LS)

3. Arpita Paul (UGC-JRF)

4. Moumita Biswas (UGC-NET-LS)