

Dr. SEHA SINGHA

Contact Information:

Address: 91/2/1 Bose Pukur Road, P.O & P.S - Kasba, Kolkata,
Pin code- 700042, West Bengal, India

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Personal Profile:

Date of Birth: 01st June, 1992

Gender: Female

Marital Status: Married

Nationality: Indian

Languages Known: English, Hindi & Bengali

Personal Qualities:

- Strong motivational skills.
- Remarkable analytical, logical skills.
- Good communication skills in written and verbal both.
- Ability to give the best result in pressure situations.

Education:

- **Ph.D.** (2018-2024) in Natural Product Science from Jadavpur University, Kolkata, West Bengal, India
- **Masters in Pharmacy** (2014-16): From IIT(BHU), Specialization **Pharmacognosy**, with CPI 8.59 out of grade 10, Varanasi
- Qualified **Graduate Pharmacy Aptitude Test (GPAT)** (2014) with 168 scores
- **Bachelors in Pharmacy** (2010-2014): From West Bengal University of Technology currently known as Maulana Abul Kalam Azad University of Technology, West Bengal with 7.99 out of grade 10.

Dissertation:

- B. PHARM - Microsponge – “As Colon Targeted Drug Delivery System” Under guidance of Professor Debasis Dutta, NSHM Knowledge Campus, Kolkata – Group of Institutions, West Bengal, India
- M.PHARM - “Antiobesity Study of Banaba Leaf (*L. speciosa*) and Standardization of Extract” under guidance of Dr. (Mrs.) S. Hemalatha, Associate Professor, IIT (BHU), Varanasi, Uttar Pradesh, India

- Ph.D. – “Therapeutic Evaluation of Medicinal Plants as Adaptogen from Cucurbitaceae family” under guidance of Prof. Pulok Kumar Mukherjee, Professor (on-lien), Department of Pharmaceutical Technology, Jadavpur University, Jadavpur, Kolkata, West Bengal and Director, Institute of Bioresources and Sustainable Development, Imphal, Manipur, India.

Publication(s):

- **Singha S**, Das Gupta B, Sarkar A, Jana S, Bharadwaj P K, Sharma N, Mukherjee P K, Kar A, 2024. Chemo-profiling and exploring Therapeutic Potential of *Momordica dioica* Roxb. ex Willd. For Managing Metabolic Related Disorders: In-vitro Studies, and Docking based Approach. Journal of Ethnopharmacology, 331, 118351. <https://doi.org/10.1016/j.jep.2024.118351>.
- **Singha S**, Biswas S, Das Gupta B, Kar A, Mukherjee P K, 2020. Standardization of some plants of the Cucurbitaceae family by a validated high-performance thin-layer chromatography method. JPC-Planar Chromatography – Modern TLC, 33(5), 463-472.
- Das Gupta B, Kar A, **Singha S**, Jana S, Haldar P K, Mukherjee P K. Metabolite profiling based based network pharmacology analysis of *Benincasa hispida* (Thumb.) Cogn. Fruit against non-insulin dependent diabetes mellitus. Phytochemical Analysis (PCA-24-0411 accepted).
- Mukherjee P K, **Singha S**, Kar A, Chanda J, Banerjee S, Dasgupta B, Haldar P K, Sharma N, 2022. Therapeutic importance of Cucurbitaceae: A medicinally important family. Journal of Ethnopharmacology, 282, 114599. doi: 10.1016/j.jep.2021.114599.
- Chanda J, Mukherjee P K, Kar A, Maitra P K, **Singha S**, Halder P K, Gajbhiye R, Vishnuvardh R, 2020. LC-QTOF-MS-based metabolite profiling and evaluation of α -glucosidase inhibitory kinetics of *Coccinia grandis* fruit. Biomedical Chromatography, 34(12), e4950. doi: 10.1002/bmc.4950.
- Chanda J, Mukherjee P K, Biswas R, **Singha S**, Kar A, Haldar P K, 2021. *Lagenaria siceraria* and it's bioactive constituents in carbonic anhydrase inhibition: A bioactivity guided LC-MS/MS approach. Phytochemical Analysis, 32(3), 298-307.
- Debnath P, Das B, **Singha S**, Kar A, Haldar P K, Sharma N, Mukherjee P K, 2024. Quantification of cucurbitacin E in different varieties of melon (*Cucumis melo* L.) fruit through validated RP-HPLC method. Natural Product Research, 38(7), 1273-1279.
- Jana S, Gayen S, Dasgupta B, **Singha S**, Mondal J, Kar A, Nepal A, Ghosh S, Rajabalaya R, David S R, Balaraman A K, Bala A, Mukherjee P K, Haldar P K, 2023. Investigation on anti-diabetic efficacy of a Cucurbitaceae food plant from the North-East region of India: Exploring the molecular mechanism through modulation of oxidative stress and

glycosylated hemoglobin (HbA1c). *Endocrine, Metabolic & Immune Disorder - Drug Targets*, 24(2), 220-234.

- Mukherjee P K, Efferth T, Das B, Kar A, Ghosh S, **Singha S**, Debnath P, Sharma N, Bhardwaj P K, Haldar P K, 2022. Role of medicinal plants in inhibiting SARS-CoV-2 and in the management of post-COVID-19 complications. *Phytomedicine*, 98, 153930. doi: 10.1016/j.phymed.2022.153930.

Conference Paper(s):

- **Singha S**, Dasgupta B, Biswas S, Mukherjee P K. *In-vitro* α -amylase enzyme potential of some food plants belongs to Cucurbitaceae family. 6th Convention of Society for Ethnopharmacology & National seminar on “Translational Research of Traditionally used Indian Medicinal Plants with special reference to “*Tinospora cordifolia*”: Jadavpur University, Kolkata, India during September 07-08, 2019.
- **Singha S**, Dasgupta B, Biswas S, Das B, Jana S, Kar A, Mukherjee P K. Marker profiling and *in-vitro* α -glucosidase & α -amylase inhibitory potential of *Cucurbita maxima* fruits – A food plant. 7th Convention of Society for Ethnopharmacology & International symposium on “Combating COVID-19 – Ethnopharmacology & Traditional Food and Medicine”: during December 17-19, 2020.
- **Singha S**, Dasgupta B, Jana S, Debnath P, Kar A, Mukherjee P K. Metabolite analysis and *in-vitro* α -glucosidase enzyme inhibitory potential of *Trichosanthes dioica* Roxb. fruits. 8th Convention of Society for Ethnopharmacology & National Seminar on “Ethnopharmacology for wellness: Tradition to Transition”: CSIR-IICB, Kolkata, India, on December 10, 2021.
- **Singha S**, Jana S, Dasgupta B, Kar A, Haldar P K, Mukherjee P K. Assessment of Adaptogenic Properties of Hydroalcoholic Extract of *Benincasa hispida* (Thunb.) Cogn. fruit extract in Swiss albino mice. 9th Convention of Society for Ethnopharmacology & National Seminar on “Translational Research on Indian Medicinal Plants”: Jadavpur University, Kolkata, West Bengal, India, September 23-24, 2022.
- **Singha S**, Dasgupta B, Jana S, Gayen S, Chowdhury S, Kar A, Haldar P K, Mandal S C, Mukherjee P K. Assessment of *In-Vivo* Adaptogenic Activity of *Momordica dioica* Fruit Extract. 22nd International Congress of International Society for Ethnopharmacology (ISE) & 10th International Congress of the Society for Ethnopharmacology (SFE), India (ISE-SFEC, 2023): Imphal, Manipur, India during February 24- 26, 2023.
- **Singha S**, Dasgupta B, Jana S, Gayen S, Chatterjee T, Kar A, Haldar P K, Mandal S C, Mukherjee P K. Chemoprofiling and Therapeutic Evaluation of *Cucurbita maxima* Fruit

as Adaptogen. International Conference on Traditional Medicine & Phytopharmaceuticals (ICTMP) & 11th International Congress of Society for Ethnopharmacology (SFEC 2024): CSIR- Indian Institute of Integrative Medicine (CSIR-IIIM), Jammu, Jammu & Kashmir, India during February 16-18, 2024.

Research Experience(s):

- Worked as Project Fellow under Science & Engineering Research Board (SERB), Department of Science and Technology, New Delhi sponsored project (December 2018 – February 2019).
- Worked as Rashtriya Uchchar Shiksha Abhiyan (RUSA) 2.0 Research Fellow at Jadavpur University, Kolkata, West Bengal, India (March 2019 – March 2020).
- Working as Project Coordinator under Department of Biotechnology, Ministry of Science & Technology, Government of India sponsored project (June 2022 – 03rd August 2024).

Professional Experience:

- Working as Assistant Professor in Department of Pharmaceutical Technology, School of Health and Medical Sciences, Adamas University, Barasat, West Bengal, India (August 2024- till date).
- Worked as Officer in Quality Assurance department at Mylan Laboratories Limited, Pithampur, Madhya Pradesh, India (July 2016-June 2018).

Industrial Training:

Summer trainee at Albert David Pvt. Ltd., Kolkata, West Bengal, India for during May-June 2013.

Professional Memberships:

Member of Society for Ethnopharmacology, India (August 2018 -till date).

Participation / Co-Curricular:

- Participated and part of organizing committee in National conference on “Exploring the Bioresources of India to fight against Antimicrobial Resistance (AMR)” organized by Institute of Bioresources and Sustainable Development (IBSD) and ICMR-National Institute of Cholera and Enteric Diseases (ICMR-NICED) in association with Society for Ethnopharmacology (SFE) at Kolkata India, April 4-5, 2024.
- Participated in 10th Convention of Society for Ethnopharmacology and National Seminar on “Ethnopharmacology for Bio-economy: The New Paradigm” during November 28-30, 2023 at CSIR - North East Institute of Science & Technology (NEIST), Jorhat, Assam, India.
- Participated and part of organizing committee in National seminar on “Role of medicinal plants to combat metabolic disorders and associated pathological complications at Jadavpur

University, Kolkata organized by Society for Ethnopharmacology, India and Schol of Natural product studies, Jadavpur University, June 30 – July 01, 2023.

- Participated in a Traditional healers meet at Institute of Bioresource and Sustainable Development (IBSD), Shillong, Meghalaya, organized by IBSD, Shillong Node, BRDC, Shillong, and Society for Ethnopharmacology, India, April 18, 2023.
- Participated in a workshop and training session of Traditional Healers organized by Bioresources Development Centre, Shillong & IBSD, Imphal, December 15, 2022.
- Participated and part of organizing committee in Capacity Building & Training on Instrumental Techniques – special emphasis on “High Performance Liquid Chromatography (HPLC) and Gas Chromatography Mass Spectroscopy (GC–MS) for metabolite profiling, quality Evaluation and validation of Natural Products”, August 08, 2022.
- Participated and part of organizing committee in 9th Convention of Society for Ethnopharmacology & National Seminar on “Translational Research on Indian Medicinal Plants” at Jadavpur University, Kolkata, West Bengal, India, September 23-24, 2022.
- Participated and part of organizing committee in 8th Convention & National Seminar of Society for Ethnopharmacology on “Ethnopharmacology for wellness: Tradition to Transition” at CSIR-IICB, Kolkata, India, December 10, 2021.
- Participated and part of organizing committee in Capacity Building & Training on Instrumental Techniques – special emphasis on “GC-MS based analysis for Quality Evaluation and Validation of Natural Products”, October 08, 2021.
- Participated and part of organizing committee in Capacity Building & Training on Instrumental Techniques – special emphasis on “High Performance Thin Layer Chromatography (HPTLC) for Quality Evaluation and Validation of Natural Products”, August 05, 2021.
- Participated and part of organizing committee 6th Convention & National seminar on “Translational Research of Traditionally used Indian Medicinal Plants with special reference to “*Tinospora cordifolia*” at Jadavpur University, Kolkata, India, September 07-08, 2019.
- Participated and part of organizing committee in 5th Convention of Society for Ethnopharmacology and National Symposium on “Promotion & Development of Indian Medicinal Plants” Special Reference – Brahmi (*Bacopa monnieri*) at Jadavpur University, Jadavpur, Kolkata, West Bengal, India, September 7-8, 2018
- Participated and presented model on ‘Function of Nephron & action of Diuretics’ in the National Seminar on Emerging Trends in Pharmaceutical Research & All India Pharma Student’s Conclave during March, 2013 at Indian Institute of Technology (Banaras Hindu University), Varanasi, Uttar Pradesh, India.
- Participated in the National Seminar on Changing Scenario of Pharmaceutical Technology & Research in the Era of Globalization: An Indian Perspective in March, 2013 at NSHM Knowledge of pharmaceutical Technology, Kolkata- Group of Institutions, Kolkata, West Bengal, India.

- Participated in the National Seminar on Impact of Pharmaceutical Education & Research in Redefining Healthcare Industry of 21st Century in March, 2012 at NSHM Knowledge of pharmaceutical Technology, Kolkata- Group of Institutions, Kolkata, West Bengal, India.
- Participated in the National Seminar on Innovation & Opportunities in Pharmaceutical Technology: Industry Institute Interaction in February, 2011 at NSHM Knowledge of pharmaceutical Technology, Kolkata- Group of Institutions, Kolkata, West Bengal, India.

Computer Knowledge:

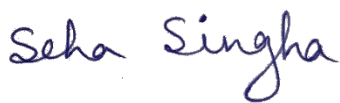
Completed Certificate & Diploma Course in Information Technology Application under Department of Youth Services & Sports, Govt. of West Bengal

Software: MS Word, MS Power Point, MS Excel, MS outlook, GraphPad prism, LIMS, Endnote.

References:

- Prof. Pallab Kanti Halder, Professor and Director, School of Natural Product Studies, Department of Pharmaceutical Technology, Jadavpur University, Jadavpur, Kolkata, West Bengal, India
Email id - pallabkanti2007@gmail.com
- Prof. Sanmoy Karmakar, Professor Department of Pharmaceutical Technology, Jadavpur University, Jadavpur, Kolkata, West Bengal
Email id - sanmoykarmakar@gmail.com

Declaration: I hereby declare that the information given above is true to the best of my knowledge.



(Seha Singha)