

Curriculum Vitae

Mr. SHARABJIT SINGH

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OBJECTIVE

- *To seek a challenging position in an organization by utilizing my skills, knowledge, learning and to work with full determination.*

Exam Qualified

- *INDIAN COUNCIL OF AGRICULTURAL RESEARCH AICE-JRF/SRF(PhD) - 2020 qualified*
- *Guru Nanak Dev University, Amritsar (GNDU) Ph.D Entrance 2019 qualified*
- *Guru Nanak Dev University, Amritsar (GNDU) M.sc (Botany) Entrance 2015 qualified*

ACADEMIC QUALIFICATION

- **Ph.D. (Doctor of Philosophy) in Botany** from Guru Nanak Dev University, Amritsar (Thesis submitted, 01.08.2024)

Supervisor: Prof. (Dr.) Saroj Arora, Department of Botanical and Environmental sciences, G.N.D.U, Amritsar.

Title of Thesis: “Protective Effects of 4-(methylthio) butyl isothiocyanate Isolated from *Eruca sativa* (Mill.) Thell. in Combination with 5-Fluorouracil and their Cubosomes against Colorectal Cancer: *In vitro* and *In vivo* Studies”.

- **M.Sc (Botany)** Passed from GNDU Amritsar with 7.75 CGPA in 2017.
- **B.Sc. (Medical)** Passed from Baring Union Christian College, Batala (GNDU) with 62% marks in 2015.
- **Passed 10+2** from P.S.E.B. with 76% marks in 2012.
- **Passed 10th** from P.S.E.B. with 81% marks in 2010.

TECHNICAL PROFICIENCY

In vitro antioxidant assays:- DNA nicking assay, DPPH assay, FRAP assay and Phospho-molybdate assay

In vitro Cell line study:- MTT assay, Cell migration assay, Cell cycle assay, MMP assay

In vivo study:- Establishment of *in vivo* animal cancer model like, DMBA induced breast cancer and DMH induced colon cancer

Instrument handled:- Fluorescence microscope, High performance liquid chromatography (HPLC), Phase contrast microscope, Flow cytometer, Gel electrophoresis assembly, Centrifuge, Laminar air flow, Co₂ incubator, Rotary evaporator, Autoclave, UV-Spectrophotometer etc.

CONFERENCE, WORKSHOP & OTHERS

- Oral presentation given in the **NATIONAL CONFERENCE** on Frontiers in Chemical & Biological Sciences (FCBS-2024) organised by Department of Chemistry & Chemical Sciences and Himalayan Life Science Society held at **Central University Himachal Pradesh, Shahpur** (29-30 May 2024) (Himachal Pradesh, INDIA).
- Oral presentation given in the **NATIONAL CONFERENCE** titled Bharat vision 2047: Sustainable and inclusive Growth through Lateral Thinking, Industrialization, and Innovation held at **Pyramid College of Business and Technology, Phagwara** (6th April 2024) (PUNJAB, INDIA).
- Participated in Basic Bioinformatics **Workshop** organized by the **Centre of Bioinformatics Training and Research, Lucknow** (7th to 9th January 2022).
- Participated in **NATIONAL CONFERENCE** on science biodiversity and technology tools for sustainable development goals at **Desh Bhagat University, Mandi Gobindgarh/ Punjab**. (7-9th February, 2024)
- Virtual Presented research paper in Fifth **International Conference** on Recent Advances In Materials and Manufacturing (ICRAMM 2023) organised by **Velalar College of Engineering and Technology, Erode**, (29-30 December 2023) (Tamil Nadu, INDIA).
- Oral presentation given in the **INTERNATIONAL CONFERENCE** on “One Planet, One Earth, One Future” (Integrating Agriculture, Environment and Energy) held at **DAV University, Jalandhar** (22-23 November 2023) (PUNJAB, INDIA).
- Oral presentation given in the 11TH **NATIONAL CONFERENCE** on Recent advances in Chemical Biological and Environmental Sciences (RACES-2023) Organised by **Multani Mal Modi college, Patiala** (12-13 April 2023) (PUNJAB, INDIA).
- Oral presentation given in the 9th **INTERNATIONAL CONFERENCE** on Recent Trends in Bio and Material Sciences Organised by Him Science Congress Association at **Sardar Patel University, Mandi**, (10-11 October 2022) (Himachal Pradesh).
- Participated in **National Seminar** on Recent Trends in Plant and Environmental Sciences held at GNDU (9-10th February 2017) (Amritsar).
- Participated in Vermicomposting **Workshop** on Theme CLEAN CITIES GREEN FARM held at Botanical & Environmental Sciences Department at GNDU, (30 March 2017) (Amritsar)
- Participated in Training of Dairy Farmers For Management of Cattle Dung through vermicomposting (Wov-I) **Workshop** on Mission TANDRUST PUNJAB Directorate of Environment and Climate Change Punjab held at Botanical & Environmental Sciences Department at GNDU (Amritsar) (13-14 June 2023).
- Participated in Folk Dance in The World Culture Festival hosted by ART OF LIVING at New Delhi.
- Paper present in UGC Sponsored National Seminar on Women Empowerment: Threat Challenges.
- Participated in **National Conference** on Plant Sciences: Network in Health and Environment at Khalsa College Amritsar (30-31 October 2018).

- Participated in **International webinar** on Combating Viral infections With Botanicals at Khalsa College Amritsar (2020)
- Attended Two Days **National Workshop** on Relevance of IPR in the Era of innovation Driven research at GJCEI , GNDU Amritsar.(2022)

AWARD

- Awarded with **YOUNG SCIENTIST AWARDED** in the 11TH NATIONAL CONFERENCE on Recent Advances in Chemical Biological and Environmental Sciences (RACES-2023) Organised by Multani Mal Modi college, Patiala (PUNJAB, INDIA).
- Awarded with **BEST RESEARCHER AWARD** in INTERNATIONAL CONFERENCE and award ceremony on multidisciplinary research and global transformation organised by research education solution in association with sidhvi foundation(November-2022)
- Secured **3rd position in Oral presentation** given in the INTERNATIONAL CONFERENCE on “ One Planet, One Earth, One Future” (Integrating Agriculture, Environment and Energy) held at DAV University, Jalandhar (2023) (PUNJAB, INDIA).

EXPERIENCE

- One and half years of Teaching experience as **Assistant Professor at R.R. Bawa D.A.V College for Girls, Batala, (Punjab)** from July 2017 to December 2018.
- Taught as a **Part Time teacher** in Department of Botanical & Environmental Sciences, Social Sciences Department, Department of Psychology, Punjabi Department and Agriculture Department, G.N.D.U, Amritsar for session 2020-2021, 2021-22, 2022-23, 2023-2024 .

PUBLICATIONS

- Singh, S., Singh, G., Attri, S., Kaur, P., Rashid, F., Bedi, N., ... & Arora, S. (2023). Development and optimization of nanoparticles loaded with erucin, a dietary isothiocyanate isolated from *Eruca sativa*: Antioxidant and antiproliferative activities in ehrlich-ascites carcinoma cell line. *Frontiers in Pharmacology*, 13, 1080977.
- Kaur, H., Singh, A., Kaur, K., Kumar, A., Attri, S., Rashid, F., Singh, S., ... & Arora, S. (2023). 4-methylthiobutyl isothiocyanate synergize the antiproliferative and pro-apoptotic effects of paclitaxel in human breast cancer cells. *Biotechnology and Genetic Engineering Reviews*, 1-25.
- Rajput, A., Sharma, P., Singh, D., Singh, S., Kaur, P., Attri, S., ... & Arora, S. (2023). Role of polyphenolic compounds and their nanoformulations: A comprehensive review on cross-talk between chronic kidney and cardiovascular diseases. *Naunyn-Schmiedeberg's Archives of Pharmacology*, 396(5), 901-924.
- Kaur, A., Attri, S., Kumar, A., Mohana, P., Singh, S., Kaur, P., ... & Singh, A. P. (2023). Valorization of polypore mushroom *Phellinus fastuosus* by analyzing antioxidative, antiproliferative and apoptosis Induction Potential. *Waste and Biomass Valorization*, 14(8), 2659-2672.
- Arora, S., Singh, D., Rajput, A., Bhatia, A., Kumar, A., Kaur, H., Singh, S., ... & Singh, B. (2021). Plant-based polysaccharides and their health functions. *Functional Foods in Health and Disease*, 11(4), 179-200.

- Singh, D., Kaur, P., Attri, S., **Singh, S.**, Sharma, P., Mohana, P., ... & Arora, S. (2022). Recent advances in the local drug delivery systems for improvement of anticancer therapy. *Current Drug Delivery*, 19(5), 560-586.
- Kaur, P., Attri, S., Singh, D., Rashid, F., **Singh, S.**, Kumar, A., ... & Arora, S. (2023). Neuromodulatory effect of 4-(methylthio) butyl isothiocyanate against 3-nitropropionic acid induced oxidative impairments in human dopaminergic SH-SY5Y cells via BDNF/CREB/TrkB pathway. *Scientific Reports*, 13(1), 4461.
- Rajput, A., Sharma, P., Kumar, N., Singh, H., Singh, T., **Singh, S.**, ... & Arora, S. (2022). Revealing Anticonvulsant Potential of *Grewia tiliaefolia* in Pentylene-tetrazole induced Epilepsy in mice: In vitro, in vivo and, in silico analysis.
- Attri, S., Singh, A., Rashid, F., **Singh, S.**, Mohana, P., Alshehri, S., ... & Arora, S. (2023). Targeting JAK/STAT signaling pathway and anti-inflammatory markers using bakuchiol isolated from *Psoralea corylifolia* for cytotoxicity of human squamous cell carcinoma (A431) cells. *Journal of King Saud University-Science*, 35(6), 102716.
- Sharma, P., Rajput, A., Kumar, N., **Singh, S.**, Singh, S., Tuli, H. S., ... & Arora, S. (2023). Antioxidant activity and inhibitory potential of *Hibiscus rosa-sinensis* flower extract against the key enzymes relevant for hyperglycemia: in-vitro and in-silico studies. *Minerva Biotechnology & Biomolecular*, 35(2).
- preet Singh, G., Singh, J., Chandel, K., Arora, **S.**, **Singh, S.**, Singh, D., ... & Singh, K. J. (2024). Synthesis and characterization of pristine CuO and Mg/CuO nanostructures for their anti-breast cancer and photocatalytic degradation applications: Experimental and DFT investigations. *Materials Today Communications*, 40, 109398.
- **Interplay of Co:Fe ratio in off-stoichiometry cobalt ferrite for cancer treatment, photocatalytic activities and green energy storage (Communicated)**
- **Bioactivity and Anticancer Properties of Samarium Oxide Doped CaO-P₂O₅-SiO₂ Bioceramics (Communicated)**

STRENGTH

- *Punctual, Hardworking and Honest.*
- *Positive attitude toward life.*

PERSONAL PROFILE

Father's Name : Kashmir Singh
Date of Birth : 28-07-1993
Gender : Male
Nationality : Indian
Language Known : English, Punjabi, Hindi.
Marital Status : Un-married

All the above mentioned information are true to the best of my knowledge

(SHARABJIT SINGH)