


Department of Biotechnology

Faculty Details Performa

Name	Dr. Jaspreet Singh	Photograph
Designation	Assistant Professor	
Date of Birth	19.03.1975	
Office Address	P.G. Department of Biotechnology	
Residence	Amritsar	
Phone No.	9463990124	
Email	jaspreetsingh@khalsacollege.edu.in	
Educational Qualifications		
Degree	Institution	Year
B.Sc./B.A.	Guru Nanak Dev University	1999
M.Sc./M.A.	Guru Nanak Dev University	2001
B.Ed.	--	
Ph.D.	Shri Venkateshwara University	2017
Post-Doctoral Fellowship	==	
Any Other	==	
Career Profile		
Organisation	Designation and Duration	Role
Khalsa College Amritsar	Assistant Professor 2008- till date	Teaching and Research
Administrative Assignments		
nil		

Area of Interest/ Specialization	
Molecular Biology and Biochemistry	
Subjects Taught	
Undergraduate	Post Graduate
Biochemistry, Immunology	Biochemistry, Enzymology, Immunology
Research Guidance	
PhD Thesis/M.Phil.	
M.Sc. (Dissertation): 15	
M.Phil.: nil	
Ph.D. Enrolled:nil	
Research Publications	
Publication Profile	
• Publications: International (18); National (1)	

Papers in research Journals

- Singh, A., & **Singh, J.** (2024) Bioremediation of Microplastics: A Promising Solution for Environmental Pollution. *Environmental Science Archives*, 3(2), 71-75. (ISSN 2583-5092).
- **Singh, J.**, & Singh, A. (2024) Lunasin: A medicinally important chemo-preventive natural dietary peptide. *International Journal of Innovative Science and Research Technology*, 9(8), 2040-2046. (ISSN 2456-2165).
- **Singh, J.**, Singh, A., & Singh, S. (2023) Entomotoxic potential of plant lectins as an environment friendly tool to control insect pests. *Environmental Science Archives*, 2(2), 205-212. (ISSN 2583-5092).
- Singh, A., Singh, R., & **Singh, J.** (2023) Flystrike among Domestic Animals: An Overview. *International Journal of Innovative Science and Research Technology* 8(9), 607-609. (ISSN 2456-2165).
- Kaur, G., Singh, S., **Singh, J.** & Kaur, N. (2023) Review: Extraction and bioactivity of oleoresins from red pepper (*capsicum annum* l.). *International Journal for Science and Advance Research in Technology* 9(8), 193-201. (E-ISSN 2395-1052).
- **Singh, J.**, Singh, A., & Singh, S. (2023) Major milestones in the evolutionary time line of Biotechnology. *International Journal of Current Science*, 13(3), 641-646. (ISSN 2250-1770).
- **Singh, J.**, & Singh, B. (2022) Beneficial roles of n-3 polyunsaturated fatty acids in human health. *International Journal of Research and Analytical Reviews*, 9(3),854-858. (E-ISSN 2348-1269, P-ISSN 2349-5138).
- **Singh, J.**, & Singh, B. (2021) Glycolytic pyruvate kinase isoform PKM2 in cancer. *International Journal of Research and Analytical Reviews*, 8(1),956-962. (E-ISSN 2348-1269, P-ISSN 2349-5138).
- **Singh, J.**, & Singh, B. Inhibition of post-mortem fish muscle softening and degradation using legume seed proteinase inhibitors. *Journal of Food Science and Technology*, (2020), 57,1-11.
- **Singh J.** & Singh B. (2019) Patatin and its valorization from potato juice waste. *International Journal of Research and Analytical Reviews*, 6(2), 478-482. (E-ISSN 2348-1269, P-ISSN 2349-5138).
- Singh, B., **Singh, J.**, Singh, J.P., Kaur, A., & Singh, N. (2020) Phenolic compounds in potato (*Solanum tuberosum* L.) peel and their health-promoting activities. *International Journal of Food Science & Technology*, 55, 2273–2281
- **Singh, J.**, & Singh, B. (2014) Drying kinetics of gum karaya (*Sterculia urens*) using convective air dryer. *British Journal of Pharmaceutical Research*, 4(13) 1647-1656. (ISSN: 2231-2919)
- **Singh, J.**, Singh, B. & Kaur, A., (2021) Krill oil - A novel food supplement for human health, *International Journal of Food and Nutritional Sciences*, . (2014) 3(6) 213-219. (ISSN: 2320-7876)
- **Singh, J.**, & Singh, B. (2014) Agro-production, processing and utilization of *Stevia rebaudiana* as natural sweetener, *Journal of Agricultural Engineering and Food Technology*, 1(1), 28-31. (ISSN: 2350-0263)
- **Singh, J.**, & Singh, B. (2013) Hot air cabinet drying of gum kondagogu (*Cochlospermum gossypium*). *International Journal of Agriculture and Food Science Technology*, 4(10): 967-974. (ISSN: 2249-3050)
- **Singh, J.**, & Singh, B. (2013) Gum Kondagogu- A Natural Exudate from *Cochlospermum gossypium*, *The Botanica*, (2013) 62-63 115-123. (ISSN: 0045-2629)
- **Singh, J.**, & Singh, B. (2013) Applications of Radioisotopes in Agriculture. *International Journal of Biotechnology and Bioengineering Research*, 4(3) 167-174. (ISSN 2231-1238)
- **Singh, J.**, Singh, B. & Kaur, A. (2013) Cost effective plant regeneration protocol for rough lemon (*Citrus jambhiri* Lush) using gum kondagogu as gelling agent in plant tissue culture media. *Journal of Cell and Tissue Research*, (2013) 13(1) 3535-3540. (ISSN: 0973-0028)
- **Singh, J.**, Singh, B. & Kaur, A. (2011) Evaluation of natural exudates gum from *Sterculia urens* as gelling agent in culture media for in vitro regeneration of rough lemon (*Citrus jambhiri* Lush.) shoot tips. *Journal of Biological Sciences*, 11(5) 374-380. (ISSN: 1727-3048)

Conferences Attended

Total : 21

Conference Papers

- Food Irradiation: A Novel Food Processing Technique in 7th National Conference on 'Current Advances in Physical Sciences' (CAPS-2024) organized by P.G. Department of Physics, Khalsa College Amritsar on March 6, 2024.
- In silico Molecular Docking in Drug Designing in National Seminar on recent advances in Chemical Sciences-Molecular engineering and catalysis organized by P.G. Department of Chemistry, Khalsa College Amritsar on April 4, 2024.
- COVID-19 and Environmental Pollutants – A Policy Draft in National Conference on Air Quality And Human Health: Consequences And Remedies (AQHH-2022) organized by P.G. Department of Botany, Khalsa College Amritsar on Nov. 4-5, 2020.
- Compositional Characterization of Egg Yolk' in VIth National Conference on Recent Advance in Chemical Sciences (RACS-VI) organized by P.G. Department of Chemistry, Khalsa College Amritsar on Feb. 26, 2020.
- Meat Protein Oxidation-MPOX in National Seminar on Recent Advances in Chemical Sciences (RACS-IV) "Sustainable Chemistry" by Dunicliff Chemical Society at P.G. Department of Chemistry, Khalsa College Amritsar on July 28, 2018.
- Biophysical Techniques in Myofibrillar Structure Elucidation in 4th National Conference on Current Advance in Physical Sciences (CAPS-2018) at P.G. Department of Physics, Khalsa College Amritsar on March 22, 2018.
- Research foundations of modern plant biotechnology, in International Symposium on Genomic medicine, at Doaba College, Jalandhar on October 18, 2016
- Historical perspectives of plant tissue culture, in DBT& DST sponsored National conference on Applications of Biotechnology for Sustainable Development at DAV College Amritsar on October 16-17, 2015
- Plant Polysaccharides: A Structural Aspect, National seminar on Recent Advances in Chemical Sciences (RACS-2015) at Post-graduate Department of Chemistry, Khalsa College Amritsar, February 7, 2015
- Drying technologies: A basic requisite for preservation, in DBT sponsored National conference on Advances in Agricultural Sciences & Biotechnology' at DAV College Jalandhar on February 28, 2015
- Microwave irradiation and grinding of gum kondagogu, in International Conference on Exploring Basic and Applied Sciences for Next Generation Frontiers (EBAS-2014) at Schools of Agriculture, Biotechnology & Physical Sciences, Lovely Professional University, from November 14-15, 2014.
- Recent biotechnological tools in agricultural research, in UGC sponsored National Seminar on Perspectives in Plant and Environmental Sciences at GNDU, Amritsar from March 11-12, 2014
- Plant derived glycosidic tri-terpenoids as natural insecticides, in National Conference on Emerging Horizons in Science & Technology organized by Sri Guru Granth Sahib World University in collaboration with Punjab Academy of Sciences (Patiala) from January 17-18, 2014.
- Recent innovations in microwave-hybrid drying technologies, in International Conference on "Food Technology: Impact on Nutrition and Health" organized by International Institute of Food and Nutritional Sciences, New Delhi held at Jawaharlal Nehru University (J.N.U.), New Delhi from December 23-24, 2013.
- Microwave energy- A perspective in drying technology, in International Conference on "Innovative trends in natural/applied sciences and energy technology for sustainable development" held at Jawaharlal Nehru University, New Delhi from July 27-28, 2013.
- Microbial decontamination of gum katira by gamma irradiation and its effect on rheological properties, in International Conference on "Advances in Pharmacological and Pharmaceutical Approaches to Drug Discovery and Clinical Development" held at Chitkara University from March 15-16, 2013.

- Gums as important pharmaceutical excipients, in International Conference on “New Horizons in Pharmaceutical and Biomedical Sciences” held at Sidhartha College of Pharmacy, Dehradun (UK) from January 12-13, 2013
- Katira gum - A natural heteropolysaccharide from India, in International Conference on “Biotechnology: A Rendezvous with Basic Sciences for Global Prosperity (BTBS-2012)” held at NASC complex, PUSA, New Delhi from December 26-27, 2012
- *Sterculia Urens* gum and its applications, in International Conference on ‘Agriculture, Food Sciences and Environmental technology for sustainable global developments (AFSET-2012)’ held at Jawaharlal Nehru University (J.N.U) New Delhi on Oct. 28-29, 2012.
- Proximate composition and gelling parameters of gum kondagogu and gum karaya, in National Conference on ‘Emerging Trends in Pharmaceutical Sciences’ held at Manav Bharti University, HP from September 29-30, 2012
- Biotechnological strategies for enhanced production of secondary metabolites from plants, in UGC sponsored National conference on “Recent trends in Biotechnology” at DAV College Amritsar on September 1, 2010.

Research Projects (Major or Minor Grants/Research Collaboration)

Funding Agency	Title of the Project	Period and Grant
UGC	Processing of natural exudate gum from <i>Cochlospermum religiosum</i> for industrial applications.	<u>2011-13</u> <u>1.75 lakh</u>

Awards and Distinctions

- UGC, CSIR-(NET) : June - 2002
December- 2002

Associations with Professional Bodies

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Other Activities

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Signatures