



Rashmi Singh

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Academic Qualifications

S.No	Degree	Institution	Year
2.	M.Sc. Zoology with specialization in Animal Cytogenetics	University of Allahabad, Allahabad, India	1995
3..	Ph.D	Central Drug Research Institute (CDRI), Lucknow and University of Lucknow	Awarded in 2000

Post doctoral Research Experience: 4.5 years (1999-2003)

S.No.	Institution
1.	National Institute of Immunology, New Delhi, India
2.	Case Western Reserve University, Cleveland, OHIO, USA
3.	Oklahoma Medical Research Foundation, OKLAHOMA CITY, USA

Teaching Experience: 13 years (UG and PG classes)

S.No.	Institution	Year
1.	Udai Pratap Autonomous College, Varanasi	2004-2007
2.	Department of Zoology, MMV, Banaras Hindu University, Varanasi	2007-till date

Projects Undertaken as Principal Investigator

S. No.	Title of the Project	Name of Sanctioning Agency	Amount sanctioned (INR)
1.	Role of Curcumin on airway hyperresponsiveness: study on molecular mechanism and therapeutic potential	University Grants Commission, New Delhi, India (2011-2014)	6,86,000
2.	Lipopolysaccharides from Airborne pathogens contribute to Lung inflammation: Study on Immunomodulation	Science and Engineering Research Board, Department of Science and Technology (DST-SERB) (2012-2015)	24,96,000
3.	Development of aerosol based novel drug delivery method/device for the regulation of asthma exacerbations and pulmonary fibrosis	Biomedical device and technology Development (BDTD)-TDT Division, Science and Engineering Research Board, Department of Science and Technology (DST-SERB) (2018)	12,00,000

Ph.D produced-02; Thesis submitted-01; Ongoing- 04

Area of Interest

Immunobiology of lung microenvironment and Inflammation, Immunoglobulin receptor (Fc γ R) signaling in neutrophils and Molecular mechanism of Inflammation in Arthritis and Asthma.

Current Research Interest

Molecular pharmacology of allergic asthma, Toxicology of various pollutants involved in asthma severity leading to fibrosis, Inflammasome activation and regulation, Systematic Pharmacology and immunomodulatory and immunotoxicological properties of medicinal phytochemicals involved in therapeutics.

Publications

1. Chauhan PS, Jaiswal A, Subhashini, **Singh R**. Combination Therapy with Curcumin Alone Plus Piperine Ameliorates Ovalbumin-Induced Chronic Asthma in Mice. *Inflammation* doi: 10.1007/s10753-018-0836-1(2018).

2. Preeti Singh Chauhan, DK Singh, D Dash and **Rashmi Singh**. Intranasal curcumin regulates chronic asthma in mice by modulating NF- κ B activation and MAPK signaling
Phytomedicine DOI: 10.1016/j.phymed.2018.06.022 (2018).
3. Kumari A, Dash D, **Singh R**. Curcumin inhibits lipopolysaccharide (LPS)-induced endotoxemia and airway inflammation through modulation of sequential release of inflammatory mediators (TNF- α and TGF- β 1) in murine model. *Inflammopharmacology* Jun;25(3):329-341(2017).
4. Chauhan PS, Dash D, **Singh R**; Intranasal Curcumin Inhibits Pulmonary Fibrosis by Modulating Matrix Metalloproteinase-9 (MMP-9) in Ovalbumin-Induced Chronic Asthma. *Inflammation* 40(1): 248-258, (2017).
5. Tyagi N, Dash D, **Singh R**; Curcumin inhibits paraquat induced lung inflammation and fibrosis by extracellular matrix modifications in mouse model. *Inflammopharmacology*. 24(6):335-345 (2016).
6. Subhashini, Preeti S. Chauhan and **Rashmi Singh**; Ovalbumine induced allergic inflammation lead to structural alterations in mouse model and protective effects of intranasal curcumin: A comparative study, *Allergologia et Immunopathologia* 44(3):246--256, (2016).
7. Subhashini, Preeti S. Chauhan, D. Dash, B.N. Paul and **Rashmi Singh**; Intranasal Curcumin ameliorates airway inflammation and obstruction by regulating MAPK kinase activation (p38, Erk and JNK) and prostaglandin D2 release in murine model of asthma. *International Immunopharmacol* 31,200-206, (2016).
8. Kumari A, Dash D, **Singh R**; Lipopolysaccharide (LPS) exposure differently affects allergic asthma exacerbations and its amelioration by intranasal curcumin in mice. *Cytokine* 76, 334–342 (2015).
9. Kumari A, Tyagi N, Dash D, **Singh R**; Intranasal Curcumin Ameliorates Lipopolysaccharide-Induced Acute Lung Injury in Mice. *Inflammation*. 2015 Jun; 38(3):1103-12 (2015).
10. Tyagi N, Kumari A, Dash D, **Singh R**; Protective effects of intranasal curcumin on paraquat induced acute lung injury (ALI) in mice. *Environ Toxicol Pharmacol*. Nov; 38(3):913-21(2014).

11. Preeti S Chauhan, Subhashini, D Dash, **Rashmi Singh**; Intranasal Curcumin attenuates airway remodeling in murine model of chronic asthma. *International Immunopharmacol* 21(1):63-75 (2014).
12. Subhashini, Preeti S Chauhan, Sharda Kumari, Jarajana P Kumar, Ruchi Chawla, D Dash, Mandavi Singh and **Rashmi Singh**; Intranasal Curcumin and its evaluation in murine model of asthma. *International Immunopharmacol* 17:733-743 (2013).
13. Subhashini, Preeti S Chauhan, Sharda Kumari, D. Dash and **Rashmi Singh**; Curcumin Inhibits compound 48/80 induced systemic anaphylaxis. *American Journal of Life Sciences* 1(4):165-170 (2013).
14. Subhashini, **Rashmi Singh**, Preeti S Chauhan, Sharda Kumari and D. Dash; Nasal Administration of Curcumin Regulates Airway Inflammation in Murine Model of Asthma; *Proceedings of 12th International Congress of Ethnopharmacology, School of Natural Products, Jadavpur University, Kolkata (17-19 Feb 2012)*.
15. **Rashmi Singh**, Akhtar Nahid and Tariq M. Haqqi; Green tea polyphenol Epigallocatechin-3-gallate: Inflammation and arthritis. A mini review, *Life Sciences*, 86; 907-918, (2010).
16. **Rashmi Singh**, Salahuddin Ahmed, Timothy T. Kermode, Charles J. Malemud, Roland W. Moskowitz, Victor M. Goldberg and Tariq M. Haqqi; Epigallocatechin-3-gallate selectively inhibits interleukin-1 β -induced activation of mitogen activated protein kinase subgroup c-Jun N- terminal kinase in human osteoarthritis chondrocytes, *J Orthop Res*, 21(1):102-9 (2003).
17. **Rashmi Singh**, Salahuddin Ahmed, Victor M. Goldberg and Tariq M Haqqi; Epigalloctaechin-3-gallate Inhibits Interleukin-1 β -induced Expression of Nitric Oxide Synthase and Production of Nitric Oxide in Human chondrocytes: Suppression of Nuclear Factor- κ B activation by degradation of the inhibitor of nuclear factor- κ B. *Arthritis and Rheumatism*, 46(8):2029-2033 (2002).

18. **Singh R**, Kumar P, **Gupta PP**; Comparative functional characterization of mouse bone marrow-derived mast cells and peritoneal mast cells in response to non-immunological stimuli. *Indian J Exp Biol.* Apr;39(4):323-8 (2001).
19. **Singh R**, Nath A, **Gupta PP**, Shukla M, Khare SK, Kundu B.; Antiallergic/antiasthmatic effect of novel antiallergic hexapeptide-95/220 in various experimental models. *Indian J Exp Biol.* 39(9):871-7 (2001).
20. Bijoy Kundu, Manisha Shukla, Sanjay K.Khare, Prem P. Gupta, **Rashmi Singh**, and Amarnath; Antiallergic activity of some novel hexapeptides related to immunoglobuline E, *Protein and Peptide Letters*, vol 6, 379-384, (1999).
21. **Rashmi Singh**, A.Nath, P.P.Gupta, M.Shukla, Sanjay K.Khare and B.Kundu. Antiallergic /antiasthmatic activity of oligopeptides related to IgE, *Pharmacol. Res.* 37, 353-356 (1998).
22. **Rashmi Singh**, P.P.Gupta and P.P.Singh; Cultivation of mouse bone marrow derived mast cells using Concanavalin-A stimulated splenocyte supernatant, *Ind. J. Pharmacol.* 30, 195-198 (1998.).
23. Bijoy Kundu, Manisha Shukla, Sanjay Khare, Prem P. Gupta, **Rashmi Singh**, Gyanendra K.; Patnaik Antiallergic activity of some novel oligopeptides related to immunoglobulin E., *Bio-organic and Medicinal Chemistry Letters*: 7, 1191-1194, (1997).
24. **Curcumin on asthma: Route of Administration and Immunomodulation; Book title:** Curcumin: Synthesis, Emerging Role in Pain Management and Health Implications (2014), **Editor: Daniel Pauliquen, Nova Science Publishers, Inc., New York, USA.**
25. **Intranasal curcumin as an alternative medication in mice model of asthma in “Animals and Alternatives in Life Science Research” ISBN no 978-93-85149-13-9 (2014), Editor: Prof. Chandana Haldar, Luminous Books, Varanasi.**
26. **Airborne LPS exposure and allergic asthma exacerbation: Role of complementary medication in “Updates on Integrative physiology & Comparative Endocrinology” ISBN no. 81-85305-72-2; Volume II (2016); Editors: Chandana Haldar, Sameer Gupta and Soumik Goswami, Publication Cell, Press and Publication Division, Banaras Hindu University, Varanasi.**

