

Dr. Sanjay Kumar  
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**Research Specialization:** Bioprocess Engineering, Recombinant protein production, and Microbial Biotechnology

**Education Qualifications**

S.No.	Degree	Institution	Year
1	Ph.D. in Biotechnology	School of Biotechnology, Jawaharlal Nehru University, New Delhi, India	2009
2	M. Sc in Biotechnology	School of Biotechnology, Devi Ahilya University, Indore, India	2002
3	B. Sc Botany (Hon)	Ramjas College, University of Delhi	2000

**Teaching Experience**

S.No.	Position & Organization	Nature of Job	Place of work	Period
1	Assistant Professor	Teaching and Research	MDU Rohtak, Haryana	2010-till date
2	Assistant Professor (Contractual)	Teaching and research	Delhi Technological University, Delhi	2009 to 2010

**Fellowship and awards**

1	Senior Research Fellowship	Senior research fellowship (Dept. of Science and Technology, Govt. of India).	Jawaharlal Nehru University, Delhi	2009
2	Junior/Senior research fellowship	Senior research fellowship (Council of Scientific and Industrial Research, Govt. of India).	Jawaharlal Nehru University, Delhi	2004-2008
3	Junior research fellow	Junior research fellow (Department of Science and Technology)	Jawaharlal Nehru University, Delhi	2003 to 2004

<b>Sponsored Research Projects</b>			
<b>S.No</b>	<b>Title</b>	<b>Sponsoring Agency</b>	<b>Period</b>
1.	Development of a cost-effective strategy for production of recombinant human tumor necrosis factor alpha (TNF alpha) in <i>Escherichia coli</i> .	UGC	3 yrs (Completed)
2	Screening and isolation of PHB producing microbes from soil	Dr. Radha Krishnan Foundation Funds	1 Year
<b>Workshops/seminars organized as Organizing secretary</b>			
1. Avenues in Microbiology Challenges and Prospects (NAMCAP-2015) on 11 March 2015 2. International Conference on “Microbes for Health and Wealth” on 14 November 2017			
<b>Ph.D. Supervision</b>			
Completed 01,			
Ongoing 01			
<b>Journal Publications</b>			
1. Singha T. K Mohanty A, Khasa Y. P, Kapoor R. K, Kumar S. GP, Gulati P, Mohanty A, Pal Y. Efficient genetic approaches for improvement of plasmid-based expression of recombinant protein in <i>Escherichia coli</i> : A review. Process Biochem 2017;55:17–31. doi:10.1016/j.procbio.2017.01.026. 2. Dhankhar R, Gulati P, Kumar S, Kapoor RK. Arginine-lowering enzymes against cancer: a techno-commercial analysis through patent landscape. Expert Opin Ther Pat 2018;28:603–14. doi:10.1080/13543776.2018.1508452. 3. Kaushik M, Kumar S, Kapoor RK, Viridi JS, Gulati P. Integrons in Enterobacteriaceae: diversity, distribution, and epidemiology. Int J Antimicrob Agents 2017. 4. Kaushik M., Khare N., Kumar S., Gulati P. (2018), High Prevalence of Antibiotic Resistance and 5. Integrons in <i>Escherichia coli</i> Isolated from Urban River Water, India. Microbial Drug Resistance. doi:10.1089/mdr.2018.0194. 6. JK Abat, S Kumar, A Mohanty Ethnomedicinal, phytochemical and ethnopharmacological aspects of four medicinal plants of Malvaceae used in Indian traditional medicines: a review (2017). Medicines 7. Multilevel algorithms and evolutionary hybrid tools for enhanced production of arginine deiminase from <i>Pseudomonas furukawaii</i> RS3, R Dhankhar, A Kumar, S Kumar, D Chhabra, P Shukla (2019).Bioresource technology 8. Abat JK, Kumar S, Mohanty A. Ethnomedicinal, Phytochemical and Ethnopharmacological Aspects of Four Medicinal Plants of Malvaceae Used in Indian Traditional Medicines: A Review.			

Medicines 2017;4:75. doi:10.3390/MEDICINES4040075.

9. Singh J, Saharan V, Kumar S, Gulati P, Kapoor RK. Laccase grafted membranes for advanced water filtration systems: a green approach to water purification technology. Crit Rev Biotechnol 2017;1–19. doi:10.1080/07388551.2017.1417234.
10. Kumar S, Gulati P, Kapoor RK. In vitro studies in *Solanum xanthocarpum* to compare the potential of different explants towards callus induction and shoot formation. Int J Curr Res 2013;5:1360–2.
11. Kapoor\* RK, Kumar S, Gulati P, Malik U. 10 Innovative Technologies for Yogurt Making Shortlisted Through Patent Research. The Indian Buffalo Journal 2012;9:38–44.

#### Conference Presentation/Abstract Publication

1. Rajeev Kumar Kapoor, Sanjay Kumar, Pooja Gulati, Biotechnological means to get a firm grip on the challenges posed by climate change, a national seminar on climate change and agriculture: impact and adaptation strategies in Haryana: 6th February 2017
2. Sanjay Kumar, Pooja Gulati, Madhu Sahni, Rajeev Kumar Kapoor\*, Benefits Provided to Startups by 'Startup India Plan' for Patenting their Innovation, "Startup India Recipe for Inclusive Entrepreneurship and Innovation: Issues and Challenges " March 2-3, 2017.
3. Rajeev Kumar Kapoor\*, Sanjay Kumar, Pooja Gulati, Madhu Sahni, Impact and Role of Big Data analytics on the Intellectual Property: especially patent analytics, National Conference On "Emerging Trends in Cloud Computing and Big Data Analytics" Venue: Seminar Hall, Swaraj Sadan, M. D. University, Rohtak March 6, 2017
4. Tapan Sinha and Sanjay Kumar. 2016 'kinetics of recombinant human tumor necrosis factor-alpha (rhtnf- $\alpha$ ) expression in *Escherichia coli* with different induction strategies: a comparative approach' in the 103rd India Science Congress Association held at University of Mysore, Mysore, Karnataka. January 03-07, 2016.
5. Tapan Sinha and Sanjay Kumar. 2015 "optimization of recombinant human tumor necrosis factor-alpha (rhtnf- $\alpha$ ) production in *Escherichia coli*" in the 56th annual conference of Association of Microbiologists of India, jnu, New Delhi, India and "international symposium on 'emerging discoveries in microbiology'" December 07-10, 2015.
6. Gulshan Kumar, Amit, Neha Khare, Megha Kaushik, Sanjay Kumar, Pooja Gulati. (2014) Isolation and characterization of strains of *E. coli* from various farm animals in and around Rohtak. National Conference on Pollution mitigation for a sustainable future. Maharshi Dayanand University, Rohtak, Haryana, 26<sup>th</sup> March 2014.
7. Tapan Sinha and Sanjay Kumar. 2013 "over-expression of recombinant human ten-alpha in *Escherichia coli* by using codon optimized gene sequence with t7 promoter-based expression system" in the 54th annual conference of Association of Microbiologists of India, Maharshi Dayanand University, Rohtak, Haryana, India, November 17-20, 2013