

RESUME

Dr. Rajeev Kumar Kapoor



Professional Summary

- Oct 2010- till date- Working as Assistant Professor at Maharshi Dayanand University. Work involves Post graduate teaching and research on industrial enzymes.
- December 2013-July 2014 visiting scientist at Department of Biological and Agricultural Engineering, 203 White Engineering Hall, 1 University of Arkansas, Fayetteville, AR 72701, USA
- June 2006- Oct 2010- Worked as Project Manager with Evalueserve Gurgaon. Work involved:
 - a) Carrying out patent based projects in Biotechnology/healthcare and other lifescience domain with key focus on patent research & analysis.
 - b) Playing the role of subject expert in the following domains:
 - Industrial Enzymes
 - Microbiology and Fermentation Technology
 - Biofuels
 - Purification and characterization of enzymes
 - Recombinant DNA technology
 - Gene Cloning
 - Expression of recombinant proteins
 - Proteomic and Genomic sequence searches
- July 2001- June 2006 carried out bench work for my Ph.D. thesis titled: “Biochemical, Molecular characterization and application study of laccase from *Cyathus stercoreus*”
- August 1999- June 2001 Worked as Technical Assistant in Department of Biotechnology (DBT) project “Cellulase free thermostable and alkalostable xylanase for pulp and paper industry” at University of Delhi South Campus.

- June 1999- August 1999 Worked as Business Development Executive with Genetix India Pvt Ltd. Work involved promoting Qiagen, Diversa, Nunc Nalgene products to the scientific community.
- August 1998-May 1999 Worked as Product Specialist with Amersham Pharmacia Biotech Asia Pacific Ltd. now GE India. Work involved promoting consumables and equipment manufactured by the said company.
- Jan 1997-April 1997: Summer training, topic: Purification of Phosphatidyl Inositol from Soy-Bean and purification of the Enzyme myo-Inositol 1-Phosphate synthase from Baker's Yeast
Project Guide: Dr.A.Vishwakarma [Bio-organic Chemistry Lab, N I I] Duration: Two Months, Institute : National Institute of Immunology, Delhi.
- Jan 1998 -July 1998: M.Sc Dissertation, Topic: Clinico immunological study of pollen allergen. Under the supervision of Dr. A.B.Singh at Institute of genomics and integrative biology, New Delhi.

Educational Background

Degree/Diploma	University
Post Doctoral Research-2014	University of Arkansas, USA
Doctor of Philosophy, in Microbiology-2006	University of Delhi, South campus
Master of Science in Biotechnology-1998	Maharshi Dayanand University, Rohtak
P.G. Diploma in Biochemical Technology-1996	University of Delhi, Sri Venkateswara Collage
Bachelor of Science-1994	University of Delhi, Deshbandhu Collage

All the above mentioned degree/diploma were completed with >65% of marks

- Qualified **Patent agent** for the Indian Patent Office (IPO)

Professional Awards/Merits

- Shortlisted as patent facilitator for "Start-up India-2016" initiative of Prime Minister Shri Narendra Modi.

- Awarded C.V Raman Fellowship for Post Doctoral Studies in US December, 2013.
- Awarded best poster presentation in international conference of Association of Microbiologists of India. November 17-20, 2013, Maharshi Dayanand University, Rohtak.
- Qualified Indian Patent Agent Examination 2010
- Judged as best presenter in National conference on “Bio-Diversity: Challenges and Opportunities” on 18 February, 2011, at Maharshi Dayanand University (MDU), Rohtak.
- Honoured with ‘**Leadership Award**’ for exceptional performance in June-Dec 2009.
- Honoured with ‘**Star Performer Award**’ for distinguished work capabilities in Jan-Feb 2009 at Evalueserve.
- Awarded J.R.F by Department of Biotechnology, Government of India in the project entitled “Cloning and characterization of laccase/ligninase gene from White-rot fungi”.
- Vice President of Botanical society, Deshbandhu College. (1991-94)
- College Topper of University Examination.

Scientific Publications

1. Dhankhar R, Gulati P, Kumar S, **Kapoor RK**. Arginine-lowering enzymes against cancer: a technocommercial analysis through patent landscape. *Expert Opin Ther Pat*. 2018 Aug;28(8):603-614.
2. Singh J, Saharan V, Kumar S, Gulati P, **Kapoor RK**, 2017. Laccase grafted membranes for advanced water filtration systems: a green approach to water purification technology, *Critical Reviews in Biotechnology*.
3. Singha TK, Gulati P, Mohanty A, Khasa YP, **Kapoor RK**, Kumar S. 2017. Efficient genetic approaches for improvement of plasmid based expression of recombinant protein in *Escherichia coli*: A review. *Process Biochemistry*, Volume 55, April, Pages 17-31.
4. Kaushik, M.; Kumar, S.; **Kapoor, R.K.**; Viridi, J.S.; Gulati, P. Integrons in Enterobacteriaceae: Diversity, distribution and epidemiology. *Int. J. Antimicrob. Agents* 2018, 51, 167–176.
5. Kaushik M, Kumar S, **Kapoor RK**, Viridi JS, Gulati P. 2017. Integrons in enterobacteriaceae: diversity, distribution and epidemiology. *Int J Antimicrob Agents*.

6. **Dr. Rajeev Kumar Kapoor***, Rajan K, Carrier DJ. 2015. Applications of *Trametes versicolor* crude culture filtrates in detoxification of biomass pretreatment hydrolyzates. *Bioresour Technol.* 2015 Aug;189:99-106.
7. Jagdeep Singh Pannu, **Rajeev Kumar Kapoor***. 2014. The Green Blood” Wheatgrass Juice, A Health Tonic Having Antibacterial Potential. *World Journal of Pharmaceutical Research.* Volume 4, Issue 3, 46-54.
8. Jagdeep Singh Pannu*, **Rajeev Kumar Kapoor** and Ruby Yadav. 2014. Comparative Antibiotic Potential of Different Varieties of Potato Tubers. *International Journal of Pharmaceutical Sciences and Research IJPSR*, 2014; Vol. 5(12): 5389-5393.
9. Jagdeep Singh Pannu and **Rajeev Kumar Kapoor*** 2014. Microbial laccases: a mini-review on their production, purification and applications, *International Journal of Pharmaceutical Archive-3(12)*, 2014, 528-536.
10. Kumar S., Gulati P, **Kapoor RK**, In Vitro Studies In *Solanum Xanthocarpum* To Compare The Potential Of Different Explants Towards Callus Induction Vol. 5, Issue, International 06, pp.1360-1362 June, *Journal of 2013Current, Research* ISSN-0975-833X
11. **Dr. Rajeev Kumar Kapoor***, Dr. Pooja Gulati, Dr. Sanjay Kumar 2012. Patenting of Genes and Their Subsequences- A Case Study of *Clostridium difficile* Toxin Genes. Proceedings of the National seminar, “Challenges In Combating Diseases: Cause To Cure” March 23, 2012, Department of Zoology, Maharshi Dayanand University, Rohtak (Haryana)
12. **Dr. Rajeev Kumar Kapoor***, Dr. Sanjay Kumar, Dr. Pooja Gulati, Udit Malik, 2012. Top 10 Innovative Technologies for Yogurt Making Shortlisted Through Patent Research. *The Indian Buffalo Journal.* (In Press)
13. **Dr. Rajeev Kumar Kapoor**, Dr. Madhu Sahni, Seema Bhayana, Neerja Khurana, 2011. White Space Analysis for Planning and Achieving Research Goals, Proceedings of the National seminar, “Challenges In Combating Diseases: Cause To Cure” March 23, 2012, Department of Zoology, Maharshi Dayanand University, Rohtak (Haryana)
14. Kapoor M, **Kapoor RK**, Kuhad RC. Differential and synergistic effects of xylanase and laccase mediator system (LMS) in bleaching of soda and waste pulps. *J Appl Microbiol.* 2007 Aug;103(2):305-17.

15. Chandel AK, **Kapoor RK**, Singh A, Kuhad RC. Detoxification of sugarcane bagasse hydrolysate improves ethanol production by *Candida shehatae* NCIM 3501. *Bioresour Technol.* 2007 Jul;98(10):1947-50. Epub 2006 Oct 2.
16. Vasdev K, Dhawan S, **Kapoor RK**, Kuhad RC Biochemical characterization and molecular evidence of a laccase from the bird's nest fungus *Cyathus bulleri*. *Fungal Genet Biol.* 2005 Aug;42(8):684-93.
17. Kuhad RC, **Kapoor RK**, Lal R. Improving the yield and quality of DNA isolated from white-rot fungi. *Folia Microbiol (Praha).* 2004;49(2):112-6.

Chapters

1. **Kapoor R.K.** Patenting Trends in Bioremediation Technologies for Oil-Contaminated Sites, *Biotechnology of environmental Management and Resource Recovery* (Eds. R.C. Kuhad and A. Singh), 2013 ISBN: 978-81-322-0875-4, Springer Publishers, London pp. 289-313
2. Economic evaluation and environmental benefits of biofuel: an Indian perspective. Anuj Kumar Chandel; **Rajeev Kumar Kapoor**; M. Lakshmi Narasu; Viswajith Viswadevan; S.G. Saravana Kumaran; Ravinder Rudravaram; L. Venkateswar Rao; K.K. Tripathi; Banwari Lal; R.C. Kuhad; Inderscience Publishers, Dec. 12, 2007
3. Diversity Of Lignin Degrading Microorganisms, Ligninolytic Enzymes And Their Biotechnological Applications. **Rajeev Kumar Kapoor**, Krishna Kant Sharma, Sarika Kuhar and Ramesh C. Kuhad* *Microbial Diversity: Current Perspectives and Potential Applications* (pp. 815–846). Editors: T. Satyanarayana and B.N. Johri © 2005 I.K. International Publishing House Pvt. Ltd., New Delhi
4. Bioethanol from Crop Residues, Production Forecasting and Economics: An Indian Perspective. **Rajeev Kumar Kapoor**, Anuj Kumar Chandel, Sarika Kuhad, Rishi Gupta, and Ramesh Chander Kuhad. *Lignocellulose Biotechnology: Techniques and Applications*, Edited by A. Singh, Edited by R.C Kuhad; Anshan Ltd (April 30, 2007)
5. Biodiversity of Ligninolytic Fungi Sarika Kuhar¹, Mukesh Kapoor, **Rajeev Kumar Kapoor**, Krishna Kant Sharma, Ajay Singh and R. C. Kuhad *Lignocellulose Biotechnology: Techniques and Applications*, Edited by A. Singh, Edited by R.C Kuhad; Anshan Ltd (April 30, 2007)

Paper Presentation

1. Dr. Rajeev Kumar Kapoor, Pressurized Bioreactor for treatment of wastewater, in the 59th Annual Conference of Association of Microbiologists of India (AMI-2018) scheduled on 09-12 December, 2018, at School of Life Sciences, University of Hyderabad, Hyderabad, Telangana, India.
2. Dr. Rajeev Kumar Kapoor, Exploring the use of fumigants to control pathogenic microorganisms. 14th November, 2017, International Conference on "Microbes for Health and Wealth" Maharshi Dayanand University, Rohtak.
3. Rajeev Kumar Kapoor, , Characterization of *Trametes versicolor* laccase for delignification of crop residues for its use in ruminant feed. International Conference on "Microbes in Biotechnology innovations" to be held on 7th December 2018 Maharshi Dayanand University, Rohtak.
4. Rajeev Kumar Kapoor, Sanjay Kumar, Pooja Gulati, Biotechnological means to get a firm grip on the challenges posed by climate change , national seminar on climate change and agriculture: impact and adaptation strategies in haryana: 6th February, 2017
5. 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.
6. 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
7. Rajeev Kumar Kapoor, Conservation of Microbial Biodiversity- The Need of the Hour, National Seminar on "Biodiversity: Status and Significance" March 21, 2017 organised by Botany Department, MDU, Rohtak.
8. Dr. Rajeev Kumar Kapoor, Optimization of laccase production on weed biomass under SSF condition. 2015 Annual Conference of Association of Microbiologists of India, JNU, New Delhi.

9. Dr. Rajeev Kumar Kapoor, Application of Technology Landscape Study in Accessing Commercial Potential of Laccase. 2013. Annual Conference of Association of Microbiologists of India, Rohtak, Haryana-124001.
10. Dr. Rajeev Kumar Kapoor, Why do we need a Technology Transfer Office (TTO) for the Universities, Colloquium, Microbial Technology for Human Benefits, 7th August, 2010, Maharshi Dayanand University, Rohtak & Association of Microbiologists of India
11. Dr. Rajeev Kumar Kapoor, Mechanism of Protecting plants Varieties – An IPR perspective, In National conference on “Bio-Diversity: Challenges and Opportunities” on 18 February, 2011, at Maharshi Dayanand University (MDU), Rohtak.
12. Dr. Rajeev Kumar Kapoor, White Space Analysis for Planning and Achieving Research Goals, National Seminar on Internet Applications in Research on 26 March, 2011, Department of Zoology, MD University, Rohtak.
13. Dr. Rajeev Kumar Kapoor, Need of IP, Seminar on Intellectual Property - Creation and Protection, 23 April, 2011 Organized by Department of Microbiology, Maharshi Dayanand University, Rohtak (Haryana)
14. Dr. Rajeev Kumar Kapoor, Changing Patenting trends in the diagnostic Industry, 24 March, 2012 Organized by Department of Microbiology AMI Unit, Maharshi Dayanand University, Rohtak (Haryana)
15. Dr. Rajeev Kumar Kapoor, Patenting of Gene Sequences. Proceedings of the National seminar, “Challenges In Combating Diseases: Cause To Cure” March 23, 2012, Organized by Department of Zoology, Maharshi Dayanand University, Rohtak (Haryana)
16. Dr. Rajeev Kumar Kapoor, How to protect plant varieties. Workshop: Cause To Cure” March 23, 2012, Organized by Department of Biotechnology, Maharshi Dayanand University, Rohtak (Haryana).
17. Dr. Rajeev Kumar Kapoor, IPR for science. Workshop: Cause To Cure” March 23, 2012, Organized by Department of Biotechnology, GVM girls collage, Sonipet (Haryana).

Research Project (s) awarded

- Optimizing Production of Laccase Enzyme from Selected White-Rot Fungi and Developing a Process for the Degradation of Endocrine Disruptors. UGC, Rs.10.39 lakhs
- Screening and Isolation of Microbial Strains for Inulinase Production from Haryana UGC Rs.10,000.
- As Co-PI, Process development for the cost effective production of fungal endoglucanase, lipase and amylase for deinking of newsprints and mixed office waste papers Rs. 62.91 Lakhs.
- As Manager, Erasmus+ Capacity Building in Higher Education-“Enhancing female entrePREneurship in INDIA (ENPRENDIA)” Project No: 597932-EPP-1-2018-1-IN-EPPKA2-CBHE-JP (2018-3768/001-001)

Details of Extension lecture(s) delivered with topic, date and place.

- Dr. Rajeev Kumar Kapoor, Session-I Career Prospects for students pursuing their degrees in various disciplines of Life Sciences. Session-II Patent Application: drafting and Filing. Sri Pratap College Srinagar, NAAC re-accredited grade –a, cluster university Srinagar, M. A. Road Srinagar, 20-21st Novemeber, 2017.
- Dr. Rajeev Kumar Kapoor, How to protect plant varieties. DBT Sponsored Short Term Training Course on Plant Transgenic Technologies, 1-16th October, 2014. Organized by Department of Biotechnology, Maharshi Dayanand University, Rohtak (Haryana).
- Dr. Rajeev Kumar Kapoor, National Level Summit on Management and Biotechnology Corporate Orientation, Saturday, 20th September, 2014. Organized by Department of Biotechnology, GVM girls collage, Sonipet (Haryana).
- Advanced Instrumentation in Biological Engineering BENG 5103, 3rd April, 2014, at White Engineering Hall, Department of Biological and Agricultural Engineering **University of Arkansas, USA**
- ‘Intellectual Property and Generating Research Ideas using Patent landscaping” on April 10, 2014.RALPH E. MARTIN DEPARTMENT OF CHEMICAL ENGINEERING, **University of Arkansas, USA.**

- International Panelist and resource person in the panel discussion on ‘Entrepreneurship in Engineering’ held at White Engineering Hall, Department of Biological and Agricultural Engineering, **University of Arkansas, USA** on February 17th 2014.
- Creating and Protecting Intellectual Assets on March 17, in Room D-2, Food Science building, 2650 N. Young Ave **University of Arkansas, USA**

Patent based projects carried out in the domain of life sciences and biochemistry:

Type of Study	Approximate number of Studies
Novelty/Patentability Search	120
Patent Drafting Support	12
Invalidity/Validity/Opposition Search	80
Freedom to Operate Search	90
Patent Landscape/ State of the Art Search	50
Chemical Structure Search	04
Patent Paralegal Support (Sequence verific	02
Bio Sequence Search (Nucleic Acid + Aminc	40
Non-patent / Scientific Literature Search	80
Patent Monitoring / Tech Watch Services	05
Document Discovery Search (Lab Notes)	01

Scholastic Achievements

- Topped the Delhi University examinations during Bachelors of Science degree
- Awarded J.R.F by Department of Biotechnology, Government of India in the project entitled “Cloning and characterization of laccase/ligninase gene from White-rot fungi”.

Referees

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