

Dr. Ashima Kathuria (B.Tech Biotechnology)

Specialization

Ph.D: Enzymology

Area of Interest

Research: Enzymology (Industrially-important Microbial Enzymes)

Other: Isolation of microbial strains of industrial and environmental interest and deposited in MTCC, Chandigarh and ITCC, New Delhi

Publication - Books / Chapters / Papers / Articles / Blogs: List of

Publications Original Research Papers

1. Nitika Verma, Rafeeqe Alyethodi, Ashima Kathuria, Rani Alex, B Prakash (2020) Effect of heat stress on superoxide anion production in native and crossbred cattle under in vitro whole blood culture model. *Journal of Thermal Biology* 87:102457 (Impact factor : 1.092, SCI)
2. Ashima Kathuria, Pallavi Singhal, and Neha Singh (2018) Tannin biodegradation by tannase produced from *Aspergillus terreus* ITCC 8413.11 and its culture conditions. *Bulletin of Environment, Pharmacology and Life Sciences*, 8(1) : 35-38. (NAAS rating : 4.95)
3. Anil Kumar, R. K. Walia and Ashima Kapoor (2017) Nematotoxins of microbial origin: their identification, characterization and development as bio-nematicides. III. Exploitation of bacterial isolates for nematode management. *Indian Journal of Nematology*, 47: 6-12 (NAAS rating -5.03)
4. Anil Kumar, Ashima Kapoor, R. K. Walia and Kum Kum Walia (2016) Nematotoxins of microbial origin: their identification, characterization and development as bio-nematicides I. Isolation and Screening of bacterial strains for nematotoxicity. *Indian Journal of Nematology*, 46(2): 107-115 (NAAS rating -5.03)
5. Anil Kumar, Ashima Kapoor and R. K. Walia (2016) Nematotoxins of microbial origin: their identification, characterization and development as bio-nematicides II. Effect of growth conditions on the nematotoxicity of bacterial isolates. *Indian Journal of Nematology*, 46(2): 116-125 (NAAS rating -5.03)
6. Suman Lata, Smita Rastogi, Ashima Kapoor and Mohd. Imran (2015) Influence of culture conditions on production of phytase by *Zygosaccharomyces bailii* var. *bailii*. *Journal of Environmental Biology*. 36: 947-954. (NAAS rating - 6.53)
7. Suman Lata, Smita Rastogi, Ashima Kapoor and Mohd. Imran (2014) Immobilization of Phytase produced by fungal strain *Aspergillus heteromorphus* MTCC 10685. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*, 5(3): 1615-1631
8. Ashima Kapoor and Hina Iqbal (2013) Efficiency of tannase produced by *Trichoderma harzianum* MTCC 10841 in pomegranate juice clarification and natural tannin degradation. *International Journal of Biotechnology and Bioengineering Research*, 4 (6): 641-650.
9. Suman Lata, Smita Rastogi, Ashima Kapoor and Mohd. Imran (2013) Optimization of culture conditions for the production of phytase from *Aspergillus heteromorphus* MTCC 10685. *International Journal of Advanced Biotechnology and Research*, 4 (2): 224-235
10. Hina Iqbal and Ashima Kapoor (2012) Culture Conditions for the Production of Tannase from *Trichoderma harzianum* MTCC 10841. *International Journal of Science and Technology*. 1(11): 584-595
11. Hina Iqbal and Ashima Kapoor (2012) Tannin degradation efficiency of tannase produced by

Trichoderma harzianum MTCC 10841 and its biochemical properties. International Journal of Life Sciences Biotechnology and Pharma Research. 1(4): 106-117.

12. Ashima Kapoor, Shraddha Sharma and Shveta Prakash (2012) Optimization of culture conditions for the production of lipase from Gliomastix indicus and its enzymatic properties. Dynamic Biochemistry Process Biotechnology Microbiology. 6 (Special Issue 1):118-122.

13. Richa Tyagi, Swati Allen and Ashima Kapoor (2011) Culture conditions for production of cellulase from novel fungus Gliomastix indicus. Current Trends in Biotechnology and Pharmacy, 5(4): 1424-1433. (NAAS rating: 4.42)

14. R. K. Walia, Anil Kumar, S. K. Mehta and Ashima Kapoor (2010). An efficient in vivo system for mass production of Pasteuria penetrans. International Journal of Nematology, 20 (2): 211-218.

15. Anil Kumar, RK Walia and Ashima Kapoor (2005). Efficacy of Pasteuria penetrans as seed treatment in controlling Meloidogyne javanica on three succeeding crops. International Journal of Nematology, 15: 183-186.

16. Anil Kumar, RK Walia and Ashima Kapoor (2005) Field evaluation of bacterial parasite (Pasteuria penetrans) as nursery bed applications against root-knot nematode (Meloidogyne javanica) on brinjal. Journal of Biological Control, 20(2): 237-240. (NAAS rating -5.34)

17. Ashima Kapoor, HR Singhal and Sunita Jain (2003). Induction, purification and characterization of b-1, 3-glucanase from Brassica juncea L. infected with Albugo candida. Journal of Plant Biochemistry and Biotechnology, 12: 157-158. (NAAS rating -7.35)

Review Papers

1. Divya Chaudhary, Raj N. Trivedi, Ashima Kathuria, Tapas K. Goswami, Rekha Khandia and Ashok Munjal (2018) In vitro and in vivo immunomodulating properties of mesenchymal stem cells. Recent Patents on Inflammation & Allergy Drug Discovery, 12: 59-68. (SCI)

2. RK Walia, SK Mehta, Anil Kumar and Ashima Kapoor (2005). Bacterial parasite (Pasteuria penetrans) as a biocontrol agent of root-knot nematode (Meloidogyne sp.)- A case study in Haryana (India). In: Proceedings of national seminar on "Biotechnological management of nematode pest and scope of entomopathogenic nematode", pp 48-54.

3. Walia RK, Anil Kumar and Ashima Kapoor (2005). Potential of a bacterial parasite (Pasteuria penetrans) for the management of root-knot disease of horticultural crops. In: Proceedings of symposium on "Challenging problems in horticultural and forest pathology", pp 287-299.

Popular Scientific Article

1. Suman Lata and Ashima Kapoor (2014) Microbial Phytases: Biological way to reduce phosphorus pollution. Proceedings of National seminar on "Recent Advances in Pollution and Abatement". pp 142-149.

2. Ashima Kapoor and A. Subrahmanyam (2007) An uncompromised fungus in a compromised host. Bioimpulse 1(1), pp 47-48.

Lab Manual-

1. Neelesh Kapoor, Ashima Kathuria and Abha Verma (2017) Laboratory Manual „Expertise and Handling on Biotechnology and Microbiology Techniques’. Shri Gyansagar Publications, Meerut, India (ISBN: 978-81-920370-9-7).

Books-

S.no. Authors Title of the Book Year ISBN no. Name of the Publisher

1. SK Agarwal, Keemti Lal and Ashima Kathuria Physical Chemistry. B.Sc. Part-II 2014 978-8-1929005-9-9 Jai Prakash Nath & Co., Meerut.

2. SK Agarwal, Keemti Lal and Ashima Kathuria Organic Chemistry. B.Sc. Part-II 2014 978-8-1929005-5-5 Jai Prakash Nath & Co., Meerut.
3. SK Agarwal, Keemti Lal and Ashima Kathuria Inorganic Chemistry. B.Sc. Part-II 2014 978-8-1929005-8-2 Jai Prakash Nath & Co., Meerut.
4. SK Agarwal, Keemti Lal and Ashima Kathuria Analytical Chemistry. Volume 3 2013 935006920-2 Pragati Prakashan, Meerut
5. SK Agarwal, Keemti Lal and Ashima Kathuria Physical Chemistry. B.Sc. Part-III 2013 978-93-84538-29-3 Jai Prakash Nath & Co., Meerut.
6. SK Agarwal, Keemti Lal and Ashima Kathuria Organic Chemistry. B.Sc. Part-III 2013 978-93-84538-23-1 Jai Prakash Nath & Co., Meerut.
7. SK Agarwal, Keemti Lal and Ashima Kathuria Inorganic Chemistry. B.Sc. Part-III 2013 978-93-84538-18-7 Jai Prakash Nath & Co., Meerut.
8. SK Agarwal, Keemti Lal and Ashima Kathuria Physical Chemistry. B.Sc. Part-I 2013 978-93-84538-30-9 Jai Prakash Nath & Co., Meerut.
9. SK Agarwal, Keemti Lal and Ashima Kathuria Organic Chemistry. B.Sc. Part-I 2013 978-93-84538-24-8 Jai Prakash Nath & Co., Meerut.
10. SK Agarwal, Keemti Lal and Ashima Kathuria Inorganic Chemistry. B.Sc. Part-I 2013 978-93-84538-18-7 Jai Prakash Nath & Co., Meerut.
11. SK Agarwal, Keemti Lal and Ashima Kathuria Analytical Chemistry. Volume 1 2012 935006587-8 Pragati Prakashan, Meerut
12. SK Agarwal, Keemti Lal and Ashima Kathuria Analytical Chemistry. Volume 2. 2012 935006680-7 Pragati Prakashan, Meerut

Any Other Information: ASRB-NET qualified (2004)

v Ph.D students guided- 02

v Isolation of microbial strains of industrial and environmental interest and deposited in MTCC, Chandigarh and ITCC, New Delhi:

Bacillus coagulans AK19	MTCC Acc. No. 6735	-	Industrial strain
Pseudomonas putida 113	-do-	7935	- Biocontrol agent
Providencia rettgeri 123	-do-	7936	- Biocontrol agent
Vibrio sps. 84	-do-	7938	- Biocontrol agent
Providencia rettgeri 78	-do-	7937	- Biocontrol agent
Aspergillus sp.	ITCC no. 8412.11	-	Tannase producing
Aspergillus terreus	ITCC no. 8413.11	-	Tannase producing
Aspergillus flavus	ITCC no. 8393.11	-	Tannase producing
Aspergillus niger	ITCC no. 8394 .11	-	Tannase producing
Trichoderma harzianum	MTCC no-10841	-	Tannase producing