

CURRICULUM VITAE

Dr. Shafaq Rasool ,

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Teaching and Research Experience : 9 years and 3 months.

ACADEMIC PROFILE

Degree	Board/ Institute/University	Year
Ph.D. (Biotechnology)	Guru Nanak Dev University, Amritsar , Punjab & Indian Institute of Integrative Medicine, Jammu	2008
M. Sc. (Biotechnology)	Guru Nanak Dev University, Amritsar , Punjab	2002
B.Sc.	University of Kashmir, Srinagar , Kashmir, J&K	1997
Sr. Secondary (10+2)	Jammu and Kashmir State Board of School Education (JKBOSE)	1993
Matriculation (10th)	Jammu and Kashmir State Board of School Education (JKBOSE)	1991

Ph.D. thesis entitled “**Identification, cloning and expression of enantioselective lipase gene from *Bacillus pumilus***” awarded by the Department of Biotechnology, Faculty of Life Sciences, Guru Nanak Dev University, Amritsar, India. The Ph.D. work was carried out in the Division of Biotechnology, Indian Institute of Integrative Medicine (CSIR), (Formerly Regional Research laboratory), Canal Road, Jammu – 180 001

Technical expertise

Basic molecular biology techniques: PCR, RT-PCR, Cloning, Expression , Southern and Northern Hybridizations, Mutagenesis by Directed Evolution and Site directed mutagenesis, Plasmid DNA, yeast genomic DNA and RNA preparations, Sequencing of DNA , cDNA library preparation

Protein purification and analysis: Native and Recombinant protein purification from Bacteria and Yeast using glassbead lysis and sonication, FPLC, Ion exchange, Affinity, Gel filtration chromatography. SDS-PAGE, Western Blotting, Silver staining, immunization techniques for generation of polyclonal antibodies. Protein complex formation, purification and Property studies. Colorimetric, dye based and spectrophotometric estimation of proteins.

Microbiology : Isolation and purification of microorganisms from soil and water samples, Maintenance and preservation of cultures.

Biochemical Assays: Various enzyme assays like Lipase, Esterase , Protease and cellulase assays by titrimetry as well as spectrophotometric , Enzyme-Kinetic studies, Zymogram assays Electrophoretic mobility shift assay.

Bioinformatics: Various bioinformatics tools, BLAST, Expassy , Clustal W , Proficiency in using softwares required in Nucleic acid and Protein Analysis e.g., DNASTAR, Autoassembler and online softwares for Nucleic acid/Protein alignment, designing of probes and primers , MOE Software for protein modeling, Well versant with MS-Office components like Ms-Word, MS-Power Point, MS-Excel & use of internet. etc.

Research Projects

Name of the Project	Funding Agency	Amount Sanctioned	Duration	Start date of the Project	Status
“Exploring Myxobacteria from the state of J&K for novel enzymes & secondary metabolites”	DST,GOI	19.63 lakhs	3 years	October 2011	Completed
Exploring Microbial diversity and mining novel hydrolases from Brackish Water lakes of Ladakh region by Metagenomic approach.	CSIR	34 lakhs	3 years	September 2012	Completed
“Identification of unique and novel alleles of thermo stable and cold active lipases and cellulases from microflora of J&K State using metagenomic approach”.	DBT	50 lakhs	3 years	2015	Ongoing
Bioactive molecules from endophytic Microorganisms	UGC	15.4lakhs	3 years	2015	Ongoing

Publications

1. **Rasool, S., Johri, S., Riyaz-ul-hassan, S., Maqbool, Q., Verma, V., Koul, S., Taneja, S.C. and Qazi, G.N.** (2005) Molecular cloning of enantioselective ester hydrolase from *Bacillus pumilus* DBRL – 191. *FEMS Microbiol. Letters*, 249(1); 113-120. (I.F. 2.0)
2. **Johri, S., Jamwal, U., Rasool, S., Verma, A., Verma, V. And Qazi, G.N.** (2005) Purification and characterization of Peroxidases correlated with IAA oxidation in *Withania somnifera* (AGB 002). *Plant Science*, 169(6): 1014-1021 . (I.F. 2.2)
3. **Maqbool, Q.A., Johri S., Rasool, S., riyaz-ul-Hassan S., Verma V., Nargotra, A., Koul, S., and Qazi, G.N.** (2005) Molecular Cloning of an enantioselective carboxylesterase gene and biochemical characterization of encoded protein from *Bacillus subtilis* RRL-BB1. (2006) *J. Biotechnology*. 125, 1-10 (I.F. 2.7)
4. **S. Johri, U. Jamwal, K. Peerzada, S. A. Tasaduq, S. Rasool, V Verma* and G.N. Qazi.** A novel Peroxidase from *Withania somnifera*. *Journal of Plant Sciences* 1 (1); 72-79 (2006) (I.F. 1.0)
5. **Samesh H. Soror, V. Verma, Ren Rao, Shafaq Rasool, S. Koul, G.N. Qazi and John Cullum.** A cold-active esterase of *Streptomyces coelicolor* A3(2): from genome sequence to enzyme activity. *J Ind Microbiol Biotechnol* DOI 10.1007/s10295-007-0224-6 (I.F. 2.0)
6. **Sheikh Rayees^a, Ajay Kumar^a, Shafaq Rasool^b, Peerzada Kaiser^a, Naresh Kumar Satti^c, Payare Lal Sangwan^c, Rakesh Kamal Johri^a, Gurdarshan Singh^a.** Ethanol extract of *Alternanthera sessilis* (AS-1) inhibits IgE-mediated allergic response in RBL-2H3 cells. *Immunological Investigations* Vol. 42, No. 6, Pages 470-480 (2013).(I.F. 1.8)
7. **Singh R., Devi T., Verma V. and Rasool S* .** "Comparative Studies on the Extraction of Metagenomic DNA from Various Soil and Sediment Samples of Jammu and Kashmir Region in Prospect for Novel Biocatalysts". *IOSR Journal of Environmental Science, Toxicology and Food Technology*, Vol:8 Issue:4(version-1), pages 46-56 (2014) (Corresponding Author)
8. **Sheikh Rayees, Naresh Kumar Satti, Rukmankesh Mehra , Amit Nargotra, Shafaq Rasool, Anjna Sharma, Promod Kumar Sahu, Rajnikant, Vivek K. Gupta, Kunal Nepali and Gurdarshan Singh.** "Anti-asthmatic activity of azepino [2, 1-b] quinazolones, synthetic analogues of vasicine, an alkaloid from *Adhatoda vasica*". *Med Chem Res* ,DOI 10.1007/s00044-014-0996-y(2014) {I.F. 1.4}
9. **Reena Singh, Vishnu Gupta , Vijeshwar Verma and Shafaq Rasool*** "A modified and improved method for isolation of Metagenomic DNA from Hilly and dense forest soil samples." *Journal of Advanced Technology in Engineering and Science* (ISSN 2348-7550), Volume 02, Issue 08, August 2014. {I.F.-1}
10. **Sheikh Rayees, Ulaganathan Mabalirajan, Wajid Waheed Bhat, Shafaq Rasool , Rafiq Ahmad Rather, Lipsa Panda, Naresh Kumar Satti, Surrinder Kumar Lattoo, Balaram**

Ghosh and Gurdarshan Singh “Therapeutic effects of R8, a semi-synthetic analogue of Vasicine, on murine model of allergic airway inflammation via STAT6 inhibition” *International immunopharmacology* 04/2015; 26(1). DOI:10.1016/j.intimp.2015.03.035 • (2.71 I.F)

11. **Reena Singh, Chirag Chopra, Vishnu Kumar Gupta, Bashir Akhlaq, Vijeshwar Verma, Shafaq Rasool*** Purification and Characterization of CHpro1, a Thermostable, Alkali Stable and Oxidation resisting of Chumathang Hot Spring “.Sci. Bull. (2015) 60(14):1252–1260 ,DOI 10.1007/s11434-015-0834-8 (Impact Factor 1.5)
12. **Praveen Awasthi, Vidushi Mahajan, Irshad Ahmad Rather, Ajai Prakash Gupta, Shafaq Rasool, Yashbir S. Bedi, Ram A. Vishwakarma, and Sumit G. Gandhi** “Plant Omics: Isolation, Identification, and Expression Analysis of Cytochrome P450 Gene Sequences from *Coleus forskohlii*” *OMICS A Journal of Integrative Biology* Volume 19, Number 12, 2015 ^a Mary Ann Liebert, Inc. DOI: 10.1089/omi.2015.0148
- 13 **Praveen Awasthi, Vidushi Mahajan, Vijay Lakshmi Jamwal, Nitika Kapoor, Shafaq Rasool, Yashbir S. Bedi and Sumit G. Gandhi.** “Cloning and expression analysis of *chalcone Synthase* gene from *Coleus forskohlii*” *J Genetics* 95(3), 647-657.9 2016
- 14 **Praveen Awasthi, Vijay Lakshmi Jamwal, Nitika Kapoor & Shafaq Rasool** ‘‘ Homology modeling and docking study of chalcone synthase gene (CfCHS) from *Coleus forskohlii*” *Cogent Biology* (2016) 2(1)DOI: <http://dx.doi.org/10.1080/23312025.2016.1175332>
- 15 **Rishabh Gangwar, Shafaq Rasool and Saroj Mishra** ‘‘Evaluation of cellobiose dehydrogenase and laccase containing culture fluids of *Termitomyces* sp. OE147 for degradation of Reactive blue 21” *Biotechnology Reports* (2016) **12 : 52–61**
- 16 **Gupta Vishnu Kumar, Devi Tishu, Verma Vijeshwar and Rasool Shafaq***“Cloning of plantaricin structural gene plnE derived from metagenome of TsoKar a Brackish Water lake of Ladakh region ‘‘ *Research Journal of Biotechnology*, 2017: Vol. 12 (2), 66-70
- 17 **Sofia Sharief Khan, V.Verma and Shafaq Rasool***, “Fungal endophytes: A modern approach to Pharmaceutical industry” *International Journal of Advanced research in Science and Engineering*, Volume No.06, Issue No. 09, September 2017
- 18 **Tishu Devi, Shafaq Rasool*** “Adaptation of halophiles at hyper saline environments”, *International Journal of Advanced research in Science and Engineering*, Volume No.06, Issue No. 09, September 2017

Papers to be communicated :

Shafaq Rasool, High-level expression of enantioselective lipase gene from *Bacillus pumilus* in *E.coli*.

Shafaq Rasool*, Directed Evolution of an enantioselective lipase gene from *Bacillus pumilus* for improved catalytic activity.

Shafaq Rasool*, Directed evolution of enantioselective lipase gene from *Bacillus pumilus* for increased thermostability.

Rasool, S., Johri, S., Verma V., Nargotra, A. and Qazi, G.N. **Hperexpression of enantioselective carboxylesterase gene from *Bacillus subtilis* RRL BB1: Thermal stabilization of the enzyme by protein engineering.**

Papers presented in Conferences

- 1) Johri, S., **Rasool, S.**, Hassan, S.R., Maqbool, Q., Verma, V., Somal, P., Koul, S., Taneja, S.C., and Qazi, G.N. (2004) **Molecular cloning, nucleotide sequencing and characterisation of an enantio-selective lipase from *Bacillus pumilus* (DBRL-191).** Proceedings of IUPAC “International conference on biodiversity and natural products: chemistry and medical applications” organised by Department of Chemistry University of Delhi, on 26-31th January 2004.
- 2) S. Johri, Jamwal, U., **Rasool, S.**, Raina, C, Verma, A., Verma, V and Qazi, G. N (2004) **Purification and characterization of peroxidase isozymes correlated to IAA oxidation in *Withania somnifera*.** Proceedings of 73rd Annual conference of Society of Biological Chemists (India) held at G.B Pant Agricultural university, Pantnagar, India from Nov. 14-16.
- 3) **Rasool, S.**, Johri, S., Riyaz-ul-Hassan, S., Maqbool, Q. A., Verma, V. Koul, S., Taneja, S.C., and Qazi, G. N. (2005) Expression and properties of enantioselective lipase from *Bacillus pumilus* DBRL-191. Proceedings of International Conference on Microbial Diversity: Current Perspectives and potential applications held at University of Delhi south Campus, New Delhi from April 16-18, 2005.
- 4) Maqbool, Q. A., Johri, S., Riyaz-ul-Hassan, S., **Rasool, S.**, Koul, S., Taneja, S.C., Verma, V. and Qazi, G. N. (2005) **Molecular cloning of an enantioselective carboxylesterase from *Bacillus subtilis* RRL BB1.** Proceedings of International Conference on Microbial Diversity: Current Perspectives and potential applications held at University of Delhi south Campus, New Delhi from April 16-18, 2005.
- 5) **Shafaq Rasool***, Bashir Akhlaq, Sarojini Johri & Vijeshwar Verma (2010) **DIRECTED EVOLUTION OF LIPASE ENZYME FOR ENHANCED HYDROLYTIC ACTIVITY.** 51st Annual Conference of association of microbiologists of India & International Symposium on ‘Recent Advances in Cross-disciplinary Microbiology: Avenues & challenges’ organized by Birla Institute of technology , Mesra, Ranchi , Jharkhand ,India during December 14 –17, 2010.

- 6) **Shafaq Rasool***, Reena singh , Robinka Khajuria , Nikita Gupta, Vijay Kumar and V.Verma (2010) “**Alkalophilic Cold active Protease of *Bacillus sp.* Isolated from the Patnitop region of J&K**”.51st Annual Conference of association of microbiologists of India & International Symposium on ‘Recent Advances in Cross-disciplinary Microbiology: Avenues & challenges’organized by Birla Institute of technology , Mesra, Ranchi , Jharkhand ,India during December 14 – 17, 2010.
- 7) **Shafaq Rasool***,Sarojini Johri,Reena Singh,Vijeshwar Verma and Ghulam Nabi Qazi (2012) “**High level expression of enantioselective lipase gene from *Bacillus pumilus* in *E.coli***”3rd World Congress on Biotechnology organized by OMICS Group from 13-15 september at HICC,Hyderabad,India.
- 8) Reena singh,VijeshwarVerma and **Shafaq Rasool*** (2012) “**Production and Partial Characterisation of a thermostable amylase from *Bacillus firmus* strain isolated from Bhairon Ghati of Trikuta Hills**” 3rd World Congress on Biotechnology organized by OMICS Group from 13-15 september at HICC,Hyderabad,India.
- 9) **Shafaq Rasool**,Surbhi Jasrotia,Swati Abrol,Reena Singh and Vijeshwar Verma.“Modifying the Substrate Specificity of *Bacillus* Lipase by Directed Molecular Evolution” in 1st International and 3rd National Conference on Biotechnology Bio-informatics and Bio-engineering at Hotel Udayee International Tirupati on 28th and 29th June 2013.
- 10) Jyoti Rani,V.Verma & **Shafaq Rasool*** “**Myxobacterial Strain Discovery for Enzymes of Industrial Importance**” in 54th Annual Conference of Association of Microbiologists of India(AMI-2013)Platinum Jubilee Celebrations for Association of Microbiologists of India and International symposium on ‘Frontier Discoveries and Innovations in Microbiology and its Interdisciplinary Relevance’(FDMIR-2013) held at Maharishi Dayanand University,Rohtak-Haryana from 17th to 20th November,2013.
- 11) **Shafaq Rasool**^{1*}Harsha Sharma¹,Vishnu Gupta¹ and V.Verma¹(2014) “**Bioprospecting Myxobacteria from the State of J&K for Novel Enzymes and Antimicrobial Activity**” in International Conference on Life Sciences, Informatics, Food and Environment IC-LIFE 2014 organised by Department of Biotechnology, Jaypee Institute of Information Technology,Noida, U.P., India – 201307 from August 29-30, 2014.
(Awarded First Prize in oral presentations)
- 12) **Shafaq Rasool***,Sofia Sharief Khan and V.Verma (2015). “**Bioprospecting endophytic fungi from the medicinal plant *Withania somnifera* for Biotechnological applications**” in a two-day “2nd National Symposium on Interdisciplinary Sciences” organized by G.G.M Science college Jammu (J&K) held on February 27-28, 2015.
- 13) Tishu Devi, V.Verma and **Shafaq Rasool**^{1*} (2015).“**Novel moderately halophilic bacteria isolated from brackish water lake Pangong Tso of Ladakh region of J&K state**” in a two-day “2nd National Symposium on Interdisciplinary Sciences” organized by G.G.M Science college Jammu (J&K) held on February 27-28, 2015.
- 14) **Shafaq Rasool***, Verruchi Gupta,Vishnu Kumar Gupta and V.Verma (2015).“**Myxobacteria- Hidden treasure for the production of enzymes and antimicrobials**” in a two-day “2nd

National Symposium on Interdisciplinary Sciences” organized by G.G.M Science college Jammu (J&K) held on February 27-28, 2015.

- 15) **Shafaq Rasool***, Shally Antaal, Vishnu Gupta and V.Verma (2015). “**Isolation of Halophilic microorganisms from the brackish water Lake Tso-Kar of Ladakh region**” in a two-day “2nd National Symposium on Interdisciplinary Sciences” organized by G.G.M Science college Jammu (J&K) held on February 27-28, 2015.
- 16) Vishnu Kumar Gupta, V.Verma and **Shafaq Rasool***(2015).“**Mining metagenome of Tsomoriri- A brackish water lake of Ladakh region for bioactive molecules**” in a two-day “2nd National Symposium on Interdisciplinary Sciences” organized by G.G.M Science college Jammu (J&K) held on February 27-28, 2015.
- 17) Sofia Sharief Khan, Vishnu Kumar Gupta, V.Verma and **Shafaq Rasool***(2015).“**Endophytes from medicinal plants: A novel source of Bioactive molecules**” in the National Seminar on Science and Technology for human development held at University of Jammu from 25th to 27th March, 2015.
- 18) Verruchi Gupta, Vishnu Kumar Gupta, V.Verma and **Shafaq Rasool*** (2015).“**Exploring antimicrobial from myxobacterial strains isolated from unexplored areas of Jammu & Kashmir**” in the National Seminar on Science and Technology for human development held at University of Jammu from 25th to 27th March, 2015.
- 19) Tishu Devi, V.Verma and **Shafaq Rasool^{1*}**(2015) “**Metagenomics; The New Science revealing the Secrets of Microbial Planet**” in the National Seminar on Science and Technology for human development held at University of Jammu from 25th to 27th March, 2015.
- 20) Tishu Devi, V. Verma and **Shafaq Rasool^{1*}** (2015). “**16S rRNA gene sequence analyses of the Metagenome derived from water of Tsomoriri Lake of Ladakh region of J&K state for accessing microbial diversity**” in a three day “11th JK Science congress” organized by University of Kashmir, Srinagar held on October 12th to 14th, 2015.
- 21) Sofia Sharief, Ankit Pandey, Anshul Sharma, V. Verma and **Shafaq Rasool*** (2015). “**Mining Bacterial endophytes from the medicinal plants *Murraya Koengii* for biotechnological applications**” in a three day “11th JK Science congress” organized by University of Kashmir, Srinagar held on October 12th to 14th, 2015.
- 22) Verruchi Gupta, Vishnu Kumar Gupta, V. Verma and **Shafaq Rasool*** (2015). “**Mining Myxobacteria from the Jammu region of J&K state in search for Novel antimicrobials**” **Hidden treasure for the production of enzymes and antimicrobials**” in a three day “11th JK

Science congress” organized by University of Kashmir, Srinagar held on October 12th to 14th, 2015.

- 23) **Tishu Devi, V. Verma and Shafaq Rasool^{1*} (2016) “Isolation of Extremely Halophilic Microorganisms from the sediment sample of Ladakh region”** in Proceedings of the 103rd Indian Science Congress held at University of Mysore, Mysore from 3-7th January, 2016
- 24) **Shafaq Rasool*(2016). “Functional Metagenomics for Industrial and Environmental Applications”** in two days National Seminar on “Environmental pollution: Join the Race to Make the World a Better Place” organized by Department of Environmental Science and Centre of Research for Development, University of Kashmir, Srinagar in collaboration with Dean, College development Council, University of Kashmir, Srinagar from 4th to 5th June, 2016.
- 25) **Shafaq Rasool*(2016). “Bioprospecting Myxobacteria For Natural Product Drug Discovery”** in three days National Conference On Basic And Applied Research In Plants And Microbes” organized by Department of Botany Punjabi University Patiala from 3rd to 5th November ,2016.
- 26) **Tishu Balotra, Vishnu gupta, V.Verma and Shafaq Rasool*(2016) “Metagenomic Analysis Of Microbial Community Of ‘Chumathang’-A Hot Water Spring Of Ladakh Region Of J &K State”** in three days National Conference On Basic And Applied Research In Plants And Microbes” organized by Department of Botany Punjabi University Patiala from 3rd to 5th November ,2016.
- 27) **Sofia Sharief Khan, Anshul Sharma, Ankit Pandey, V.Verma And Shafaq Rasool*(2016) “Isolation, Characterization And Screening Of Bacterial Endophytes From Medicinal Plant *Withania somnifera* (Ashwagandha) For Bioactive Molecules”** in three days National Conference On Basic And Applied Research In Plants And Microbes” organized by Department of Botany Punjabi University Patiala from 3rd to 5th November ,2016.
- 28) **Verruchi Gupta , Vishnu Kumar Gupta, Shafaq Rasool* And V.Verma (2016) “Cold-Environment Metagenomics In Prospect For Novel Hydrolases”** in three days National Conference On Basic And Applied Research In Plants And Microbes” organized by Department of Botany Punjabi University Patiala from 3rd to 5th November ,2016.
- 29) **Deepika Machama, Vishnu Kumar Gupta, Shafaq Rasool* And V.Verma (2016) “Functional Metagenomics For Enzyme Discovery”** in three days National Conference

On Basic And Applied Research In Plants And Microbes” organized by Department of Botany Punjabi University Patiala from 3rd to 5th November ,2016.

- 30) **Shafaq Rasool*** ,Sofia Sharief Khan and V.Verma “**Myxobacterial Strain Discovery For Natural Product Drug Discovery**” in three days 12th JK Science Congress on the theme Science and Technology: Emerging Trends and Innovations organized by University of Jammu in collaboration with J&K State Science, Technology and Innovation Council held on March 02-04 , 2017.
- 31) **Diksha Jamwal** ,Sofia Sharief Khan and Shafaq Rasool “ **Bioactive Potential Of Endophytic Microorganisms Isolated From Himalayan Yew**” in three days 12th JK Science Congress on the theme Science and Technology: Emerging Trends and Innovations organized by University of Jammu in collaboration with J&K State Science, Technology and Innovation Council held on March 02-04 , 2017.
- 32) **Mansavi Bhardwaj**, Tishu Devi, V.Verma and Shafaq Rasool “ **Functional Metagenomics For The Discovery of Novel ORF’s from Brackish Water Niches**” in three days 12th JK Science Congress on the theme Science and Technology: Emerging Trends and Innovations organized by University of Jammu in collaboration with J&K State Science, Technology and Innovation Council held on March 02-04 , 2017.
- 33) **Swadha Kailoo**, V.Verma and Shafaq Rasool “ **Bioprospecting for Cold-Active Hydrolytic Enzymes from Culturable Bacteria Associated With Apharwat Glacier**” in three days 12th JK Science Congress on the theme Science and Technology: Emerging Trends and Innovations organized by University of Jammu in collaboration with J&K State Science, Technology and Innovation Council held on March 02-04,2017.
- 34) **Vishnu Kumar Gupta**, Tishu Devi, V.Verma and Shafaq Rasool “**Accessing the Water Metagenome of Tsokar A Brackish Water Lake of Ladakh Region for Microbial Diversity Analysis**” in three days 12th JK Science Congress on the theme Science and Technology: Emerging Trends and Innovations organized by University of Jammu in collaboration with J&K State Science, Technology and Innovation Council held on March 02-04, 2017.
- 35) **Shivani Sharma**, Veeruchi Gupta ,Shafaq Rasool and V.Verma “**Screening of Cellulases in Facultative Psychrophiles from Apharwat Glacier Gulmarg (J&K State)**” in three days 12th JK Science Congress on the theme Science and Technology: Emerging Trends and Innovations organized by University of Jammu in collaboration with J&K State Science, Technology and Innovation Council held on March 02-04, 2017.

- 36) Shafaq Rasool* ,Vishnu Kumar Gupta ,Tishu Devi and V.Verma “Identification and Characterisation of a novel Thermostable and Oxidant stable Protease from “Chumathang” Hot spring using Functional Metagenomics”** in “15th World Congress on Biotechnology and Biotech Industries Meet” organized by conferenceseries.com at Rome,Italy from March 20-21st, 2017.
- 37) Tishu Devi¹, Shafaq Rasool^{1*} Adaptation of halophiles at hyper saline environments in 3rd International Conference on Recent Advances in Engineering Science and Management (ICRAESM-17) on 24th September 2017 at IETE Chandigarh.**
- 38) Sofia Sharief Khan, V.Verma and Shafaq Rasool*** “Fungal endophytes: A modern approach to Pharmaceutical industry” in 3rd International Conference on Recent Advances in Engineering Science and Management (ICRAESM-17) on 24th September 2017 at IETE Chandigarh.

Workshops/Conferences Attended :

1. Attended International Conference on Mitochondria Research and Medicine-ICMRM ,Nov 12-13,2010 held at SMVDU.
2. Attended International Symposium on biotechnological advances in Cancer Biology (ISBAICB) 2012
3. Attended Satellite-Symposium of the Ataxia-Telangiectasia International workshop on 13th Feb, 2012,held at SMVDU
4. Attended 3 days workshop on “5th Workshop on Bioinformatics and Molecular Modelling in Drug Design”organized by Dr.B.R. Ambedkar Center for Biomedical Research,University of Delhi during 21-23 March 2013.
5. Attended a workshop on “Recent Advances in Genomics and Proteomics” organised by School of Biotechnology,Shri Mata VAishno Devi University,Katra on 26th and 27th,March 2014.
6. Workshop on “Modern Developments and Applications in Imaging Techniques” organised by School of Biotechnology,Shri Mata VAishno Devi University,Katra on 26th and 27th,May, 2015.
7. Refresher Course at UGC-ASC, University of Kashmir w.e.f 7th May, 2013 to 27th May, 2013.
8. Attended DST-SERB sponsored Workshop on “Structural Biology: An Introduction to Protein Crystallography” at National institute of Mental Health & Neuro science from April 15 – 18, 2015.
9. Attended **Group Monitoring workshop** organized by SERB at GITAM University,Vizag from 25th to 26th Sep,2014

10. Attended Special summer school at UGC-HRDC, University of Kashmir from 23rd July, 2015 – 12th August, 2015.
11. Attended a workshop on “Applications of Flow Cytometry in Biomedical Research” organised by School of Biotechnology, Shri Mata VAishno Devi University, Katra on 18th and 19th, February, 2016.
12. Attended a workshop on “Genomics, Proteomics and System Biology” organised by School of Biotechnology, Shri Mata VAishno Devi University, Katra from 10th to 11th March, 2016.
13. Attended a workshop on “Scientific Innovation and Intellectual Property Rights” organized by department of Biotechnology, Shri Mata VAishno Devi University, Katra, J&K on 27th March, 2017
14. Attended a Short Term course on “Nanomaterials: Characteristics and Applications” organized by Applied Science Department of National Institute of Technical Teachers Training and Research, Chandigarh (MHRD, GOI) from 13th to 17th Nov, 2017

Lectures Delivered :

1. Delivered a lecture on “**Microbes-Building Blocks for Biotechnology**” in General Orientation course at University of Jammu, Jammu on 10th July, 2012.
2. Delivered an oral presentation on “**High level expression of enantioselective lipase gene from *Bacillus pumilus* in *E.coli***” in the conference 3rd World Congress on Biotechnology organized by OMICS Group on 13th September at HICC, Hyderabad, India.

Awards & Scholarship

Senior Research Fellowship, Council of Scientific and Industrial Research, Govt. of India (April 2006 onwards)

Research Associateship, Council of Scientific and Industrial Research, Govt. of India (October 2008 onwards)

Ist Prize in 51st Annual Conference of association of microbiologists of India & International Symposium on ‘Recent Advances in Cross-disciplinary Microbiology: Avenues & challenges’ organized by Birla Institute of technology, Mesra, Ranchi, Jharkhand, India during December 14 – 17, 2010, on the paper presented on “**DIRECTED EVOLUTION OF LIPASE ENZYME FOR ENHANCED HYDROLYTIC ACTIVITY**”

Best paper award for paper presented in AMI(2013) “Myxobacterial Strain Discovery for Enzymes of Industrial Importance” 54th Annual Conference of Association of Microbiologists of India (AMI-2013) Platinum Jubilee Celebrations for Association of Microbiologists of India and International symposium on ‘Frontier Discoveries and Innovations in Microbiology and its Interdisciplinary Relevance’ (FDMIR-2013) held at Maharishi Dayanand University, Rohtak-Haryana from 17th to 20th November, 2013.

Awarded Ist Prize on presenting a paper titled “**Bioprospecting Myxobacteria from the State of**

J&K for Novel Enzymes and Antimicrobial Activity” in oral presentations category in International Conference on Life Sciences, Informatics, Food and Environment IC-LIFE 2014 organised by Department of Biotechnology, Jaypee Institute of Information Technology, Noida, U.P., India – 201307 from August 29-30, 2014.

Awarded 1st Prize on presenting a paper as oral presentation titled “**Functional Metagenomics for Industrial and Environmental Applications**” in two days National Seminar on “Environmental pollution:Join the Race to Make the World a Better Place” organized by Department of Environmental Science and Centre of Research for Development, University of Kashmir, Srinagar in collaboration with Dean, College development Council, University of Kashmir, Srinagar from 4th to 5th June, 2016.

Member of Expert Committee : Judge :

Participated as Judge of a three member expert committee constituted by the organisers of the seminar in two days National Seminar on “Environmental pollution:Join the Race to Make the World a Better Place” organized by Department of Environmental Science and Centre of Research for Development, University of Kashmir, Srinagar in collaboration with Dean, College development Council, University of Kashmir, Srinagar from 4th to 5th June, 2016 for the evaluation of papers presented in Poster Presentation session.

Refresher/Orientation Programmes Attended :

- Attended 28 days Orientation Programme at University of Jammu, Jammu from 4th July, 2012-31st July, 2012 organised by Academic staff college, University of Jammu, Jammu and sponsored by UGC.
- Attended 21 days **Refresher Course in Basic and Applied Science(ID)** at University of Kashmir, Hazratbal, Srinagar, from 7th May, 2013-27th May, 2013 organised by Academic staff college, University of Kashmir, Hazratbal, Srinagar and sponsored by UGC.
- Attended **Special Summer School/Refresher Course** at University of Kashmir, Hazratbal, Srinagar, from 23rd July, 2015 to 14th August, 2015 organised by Academic staff college, University of Kashmir, Hazratbal, Srinagar and sponsored by UGC.

Conferences/Workshops organized:

1. Member of Organising Committee of Workshop on Trends in Bioinformatics Held on March 16-19, 2009 at University of Jammu and SMVDU.
2. Member of Organising Committee of Conference on Bioinformatics : Converting Data to Knowledge Base Held on September, 6-9, 2010 at University of Jammu and SMVDU.
3. Member of Organising Committee of International Conference on Mitochondria Research and Medicine-ICMRM , Nov 12-13, 2010 held at SMVDU.
4. Member of Organising Committee of XXIII Annual Bioinformatics coordinators Meeting held at SMVDU on Feb, 3-4th 2012.
(Compiled the proceedings of BTIS-NET coordinators Meet)

5. Member of organizing committee of International Symposium on biotechnological advances in Cancer Biology (ISBAICB) 2012 held at SMVDU on 13th February, 2012

Member of organizing committee of Satellite-Symposium of the Ataxia-Telangiectasia International workshop on 13th Feb, 2012, held at SMVDU

6. Organised a Ten day Lecture series on Fungal Biotchnology at School of Biotechnology, SMVDU under Visiting Professor fellowship of 'DST special S&T support to J&K state' from 9th Feb to 19th Feb 2014.
7. Organising Member responsible for organising two day workshop on "Recent Advances in Genomics and Proteomics" organised by School of Biotechnology, Shri Mata Vaishno Devi University, Katra on 26th and 27th, March 2014.
8. Member of the organizing team responsible for organizing a two days workshop on Bioinformatics: Approaches in the '-omics' Era" organised by School of Biotechnology, Shri Mata Vaishno Devi University, Katra on 10th and 11th, March 2015.
9. Member of organizing committee for organizing 3 days National Conference on "Orchids Science and Commerce: Integration of Medicinal Orchids, Sustainable Development and Societal Benefits" held at SMVDU from 13-15 February 2015.
10. Organising Secretary for Organising a One day workshop on "Patent Drafting and Filing" organized by Department of Biotechnology, SMVDU in Collaboration with TIFAC, DST (GOI) on 20th October, 2016
11. Member of organizing Committee for organizing a Conference on "National Conference for Interdisciplinary Aspects of Plant Sciences" & 27th APSI Scientist Meet organized by School of Biotechnology, Shri Mata Vaishno Devi University from 2nd to 4th November, 2017.

Editorial Board Member :

Editorial Board Member of Journal of Enzymology and Metabolism ISSN:2455-4774, Publisher Open Science Publications

Reviewer :

- i) American Journal of Microbiological Research
- ii) Journal of Applied & Environmental Microbiolo

Chairing a Session in Conferences/Events :

Co-Chaired a Technical session in "National Conference for Interdisciplinary Aspects of Plant Sciences" & 27th APSI Scientist Meet organized by School of Biotechnology, Shri Mata Vaishno Devi University from 2nd to 4th November, 2017.

Research Supervision :

Students awarded Ph.D degree: 2

S.No	Name of the student	Entry No.	Title of the Ph.D Topic	Year of Award of Degree
1	Mr. Rayees Rafique	011PHDSBT08	R-8, a synthetic analogue of Vasicinone, targeting interleukin-13 in Asthama.	2015
2	Ms.Reena Singh	07PHDSBT01	“Mining Metagenomes of North –Western Himalayas for Novel Hydrolases”.	2016

Students submitted Ph.D thesis: 3

S.No	Name of the student	Entry No.	Title of the Ph.D Topic	Year of Submission
1	Mr. Praveen Awasthi	11PHDSBT09	“Identification,molecular cloning,characterization and expression analysis of cytochrome P450 gene sequences from Coleus forskholii”	June-2016
2	Mr. Vishnu Gupta	2009PHDSBT11	“Mining Metagenomes for Bioactive Molecules”.	Aug-2016
3	Mr. Rishabh	13PHDSBT03	Investigation of a cellobiose dehydrogenase from lignocellulose degrading <i>Termitomyces sp.</i> OE 147	March- 2017

Students Pursuing Ph.D: 2

S.No	Name of the student	Entry No.	Title of the Ph.D Topic	Year of Enrollment
1	Miss Sofia Sharief Khan	15DBT001	Biorospecting Microbial endophytes from selected Medicinal Plants for bioactive molecules	Aug-2015
2	Miss Verruchi Gupta	15DBT003	Metagenomics for mining new genetic resources of microbial communities from high altitude areas of J&K	Aug-2015

Details of Administrative /Academic Responsibilities

S.No	Responsibility	Period
1.	Warden Shivalik Girl's Hostel	2014 till date
2.	Member School Purchase committee Biotechnology	2008 - 2016
3.	Faculty Mentor for M.SC and B.Tech Biotechnology	2010 till date
4.	Member Course allocation committee	2012 till date
5.	Member Time Table committee	2012 till date
6.	Incharge Investigational and Disseratation and Viva Voce projects	2009 till date
7.	Member Equal opportunity cell	2010 till date
8.	Member BOS	2008 till date
9.	Member Purchase Systems Advisory Committee	2014 till date
10.	Deputy Coordinator DST Special S&T package for J&K	2010 -14
11.	Member Students greviance redressal committee	2016 till date
12.	Member Students Affairs Council	2014 till date
13.	Member Gender Sensitisation committee against Sexual Harassment (GSCASH)	2016 till date
14.	Member of Committee for inspection of Food Joints	2016 till date
15.	Member Secretary Academic Affairis Committee of School of Biotechnology,SMVDU	2016 till date

**I hereby declare that all the details in this resume are true,
complete and correct to the best of my knowledge and belief.**

(Shafaq Rasool)