Curriculum Vitae

Name: Prof. Yogender Pal Khasa

Designation: **Professor**

Department and University: Department of Microbiology, University of Delhi

South Campus, New Delhi – 110021.

Home address: Flat 15, Type 4, University of Delhi South Campus,

New Delhi-110021

Phone: Mobile 09958708210, 011-24157369, 011-24112231,

Ext. 7369,

Fax: 91-11-24115270

Mail ID: yogi110@gmail.com, ypkhasa@south.du.ac.in

Date of Birth: 15th October 1976. Sex: Male

Education (Post-Graduation onwards & Professional Career)

| Degree | Institution | Degree | Year | Field of Study | |
|--------------|-----------------------|---------------|------------|-----------------------------------|--|
| | Place | Awarded | | - | |
| Postdoctoral | Seattle Biomedical | | June.2008- | Malaria Vaccine Development / | |
| Research | Research Institute, | | Nov 2009 | Bioprocess Engineering | |
| Scientist | Seattle-USA-98109 | | | | |
| | | | | | |
| Postdoctoral | University of | | July 2006- | Fermentation Technology and | |
| Research | Nebraska, Lincoln- | | May 2008 | Bioprocess engineering of | |
| Associate | USA-68588 | | | recombinant protein production | |
| | | | | using E. coli and Pichia pastoris | |
| Ph.D. | Jawaharlal Nehru | Biotechnology | April 2006 | Biotechnology (Ph.D. work | |
| | University, N. Delhi- | | | involved fermentation and | |
| | 110067 | | | bioprocess technology) | |
| M.Sc. | Jawaharlal Nehru | Biotechnology | 1999 | Biotechnology | |
| | University, N. Delhi- | | | | |
| | 110067 | | | | |
| B.Sc. | University of Delhi, | Chemistry (H) | 1997 | Chemistry (H) | |
| | Delhi-11007. | | | - | |

Positions held:

| S. No. | Position | Institution Place | From (Date) | To (date) |
|--------|--|---|--------------|-----------------------------------|
| 1 | Professor, Department of Microbiology | University of Delhi, South Campus, New Delhi, India | 30-07-2021 | Continuing |
| 2. | Associate Professor, Department of Microbiology | University of Delhi, South Campus, New Delhi, India | 30-07-2018 | 29-07-2021 |
| 3 | Assistant Professor, Department of Microbiology | University of Delhi, South Campus, New Delhi, India | 8.12.2009 | 29-07-2018 |
| 4. | Resident Tutor, Aravali P.G. Mens Hostel, UDSC | University of Delhi, South Campus, New Delhi, India | 8.07.2010 | 06.07.2012 (Two-year tenure) |
| 5. | Member, Board of Research Studies, Faculty of inter- disciplinary & Applies sciences, DU south campus | University of Delhi South Campus, New Delhi-110021, India | March 2011 | February 2013 (Two years tenure) |
| 6. | Member, Board of Research Studies, Faculty of inter- disciplinary & Applies sciences, DU south campus | University of Delhi South Campus, New Delhi-110021, India | October 2015 | September 2017 (Two years tenure) |
| 7. | Member, Board of Research Studies, Faculty of inter- disciplinary & Applies sciences, DU south campus | University of Delhi South Campus, New Delhi-110021, India | October 2019 | Continuing (Two years tenure) |

Professional Experience

June 2008-Nov. 2009: Postdoctoral Research Scientist

Seattle Biomedical Research Institute

Seattle, WA, USA-98109.

July 2006-May 2008 Postdoctoral Research Associate

Department of Chemical and Biomolecular Engineering (**Biological**

Process Development Facility).

University of Nebraska,

Lincoln, NE, USA-68588

July 2001 – April 2006: PhD from Jawaharlal Nehru University,

(School of Biotechnology)

New Delhi-110067

2000- 2001 Junior Research Fellow at Centre for

Biotechnology, JNU, N. Delhi-110067.

1999-2000 Junior Research Fellow at Centre for

Biotechnology, JNU, N. Delhi-110067.

1997- 1999 Master of Science in Biotechnology from

School of Biotechnology, JNU, N. Delhi-

110067.

Memberships of Professional bodies/Associations

1. Life member of "Association of Microbiologists of India (AMI)" of Delhi Chapter of AMI (No. 1119 – 2010)

2. Life Member "The Biotech Research Society, India" (LM 1768)

Research guidance:

PhD completed: 3 Ongoing PhD: 4 M.Sc. dissertation: 21

Research Publications: 35

a. Selected peer-reviewed publications (Best publications in chronological order)

- Adivitiya, Babbal, Mohanty S, and Khasa YP (2021) Nitrogen supplementation ameliorates product quality and quantity during high cell density bioreactor studies of Pichia pastoris: A case study with proteolysis prone streptokinase.
 International Journal of Biological Macromolecules. 180:760-770 (IF: 6.95)
- 2. Bhadrecha P, Bala M, Khasa YP, Arshi A, Singh J, Kumar M (2020) *Hippophae rhamnoides* L. rhizobacteria exhibit diversified cellulase and pectinase activities. **Physiol Mol Biol Plants.** 26(5):1075-1085 (**IF: 2.39**)
- **3.** Adivitiya, Babbal, Mohanty S, Dagar VK and **Khasa YP** (**2019**) Development of a streptokinase expression platform using the native signal sequence of the protein with internal repeats 1 (PIR1) in *P. pastoris*: gene dosage optimization and cell retention strategies. **Process Biochemistry**, 83:64–76 (**IF: 3.757**)

- **4.** Babbal, Adivitiya, Mohanty S and **Khasa YP** (**2019**) Bioprocess optimization for the overproduction of catalytic domain of Ubiquitin-like protease 1 (Ulp1) from *S. cerevisiae* in *E. coli* Fed-batch culture" **Enzyme and Microbial Technology**, 120:98-109. (**IF: 3.49**)
- Adivitiya, Babbal, Mohanty S and Khasa YP (2018) "Engineering of deglycosylated and plasmin resistant variants of recombinant streptokinase in Pichia pastoris" Applied Microbiology and Biotechnology, 102:10561–10577. (IF: 4.81)
- 6. Dagar VK, and **Khasa YP** (2018) "Combined effect of gene dosage and process optimization strategies on high-level production of recombinant human Interleukin-3 (hIL-3) in *Pichia pastoris* fed-batch culture" **International Journal of Biological Macromolecules**, 108:999-1009 (**IF: 6.95**)
- Bindal S, Dagar VK, Saini M, Khasa YP, and Gupta R (2018) "High level extracellular production of recombinant γ-glutamyl transpeptidase from *Bacillus licheniformis* in *Escherichia coli* fed-batch culture" Enzyme and Microbial Technology, 116:23-32. (IF: 3.49)
- 8. Dagar VK, Adivitiya, and **Khasa YP (2017)** "High-level expression and efficient refolding of therapeutically important recombinant human Interleukin-3 (hIL-3) in E. coli." **Protein Expression and Purification,** 131:51-59. (**IF:1.65**)
- 9. Nash SD, Prevots RD, Kabyemela E, **Khasa YP**, Lee KL, Fried M, and Duffy PE (**2017**) A Malaria-Resistant Phenotype with Immunological Correlates in a Tanzanian Birth Cohort Exposed to Intense Malaria Transmission. **American Journal of Tropical Medicine and Hygiene**, 96(5):1190-1196 (**IF: 2.82**).
- 10. Singha TK, Gulati P, Mohanty A, Khasa YP, Kapoor RK and Kumar S (2017) Efficient genetic approaches for improvement of plasmid based expression of recombinant protein in Escherichia coli: A review. Process Biochemistry 55:17–31 (IF: 3.757)
- 11. Adivitiya, and **Khasa YP (2017)** "The evolution of recombinant thrombolytics: Current status and future directions." **Bioengineered** 8(4):331-358. (**IF: 3.27**)
- **12.** Devi N, Adivitiya,and **Khasa YP** (**2016**) "A combinatorial approach of N-terminus blocking and codon optimization strategies to enhance the soluble expression of recombinant hIL-7 in E. coli fed-batch culture" **Applied Microbiology and Biotechnology**, 100(23):9979-9994 (**IF: 4.81**)

- 13. Dagar VK, Adivitiya, Devi N and **Khasa YP** (2016) "Bioprocess development for extracellular production of recombinant human interleukin-3 (hIL-3) in Pichia pastoris". **Journal of Industrial Microbiology and Biotechnology**, 43(10):1373-1386. (**IF: 3.346**)
- 14. Adivitiya, Dagar VK, Devi N and Khasa YP (2016) "High level production of active streptokinase in Pichia pastoris fed-batch culture." International Journal of Biological Macromolecules. 83:50–60 (IF: 6.95)
- 15. **Khasa YP**, Khushoo A and Mukherjee KJ (2013) "Enhancing toxic protein expression in E. coli Fed batch culture using kinetic parameters: hGM-CSF as a model system" **Journal of Bioscience and Bioengineering**. 115 (3):291–297. (**IF: 2.89**)
- 16. Kumar M Kaur N, Gautam k, Pathak RK, **Khasa YP**, Gupta LR (2013) "Reporting Heavy Metal Resistance Bacterial Strains from Industrially Polluted Sites of Northern India Using Fatty Acid Methyl Ester (FAME) Analysis and Plasma-Atomic Emission Spectroscopy (ICP-AES)." **Advanced Science Letters**, 19:3311-3314. (**IF: 1.25**)
- 17. Kumar M, Pal A, Singh J, Garg S, Bala M, Vyas A, **Khasa YP** and Pachouri U (2013) "Removal of chromium from water effluent by adsorption onto Vetiveria zizanioides and Anabaena species." **Natural Science** 5:341-348.
- 18. Jadon N, Devi N, Garg S, Kumar A, **Khasa YP** and Kumar M (2013) "Optimization of Process Parameters for the production of Cellulases under Solid State Fermentation." **Journal of pure and applied microbiology**." 7(1):653-660
- 19. Shrivastava B, Nandal P, Sharma A, Jain KK, Khasa YP, Das TK, Mani V, Kewalramani NJ, Kundu SS and Kuhad RC (2012) "Solid state bioconversion of wheat straw into digestible and nutritive ruminant feed by *Ganoderma* sp. rckk02." Accepted for publication *Bioresource Technology* 107:347-351. (IF: 9.64)
- 20. Kumar A, Gupta R, Shrivastava B, **Khasa YP** and Kuhad RC (**2012**). Xylanase production from an alkalophilic actinomycete isolate *Streptomyces* sp. RCK-2010, its characterization and application in saccharification of second generation biomass. *Journal of Molecular Catalysis B: Enzymatic*, **74:**170-177. (**IF: 2.18**)

- 21. **Khasa YP**, Khushoo A, Tapryal S, Mukherjee KJ (**2011**) "Optimization of human Granulocyte Macrophage-colony stimulating factor (hGM-CSF) expression using native asparaginase and xylanase gene's signal sequences in *Escherichia coli*." **Appl Biochem Biotechnol**. 165(2):523-37. (**IF: 2.93**)
- 22. Meagher MM, Seravalli JG, S. Swanson T, Ladd RG, **Khasa YP**, Inan M, Harner JC, Johnson SK, Cott KV, Lindsey C, Wannemacher R, and Smith LA. (2011) Process Development and cGMP Manufacturing of a Recombinant Ricin Vaccine: an Effective and Stable Recombinant Ricin A-Chain Vaccine RV*Ec*TM *Biotechnology Progress* 27:1036-1047 (**IF: 2.68**)
- 23. Deswal D, **Khasa YP** and Kuhad RC (**2011**) Optimization of Cellulase production by a brown rot fungus *Fomitopsis* sp. RCK2010 under Solid State Fermentation. *Bioresource Technology*, 102:6065–6072 (**IF: 9.64**)
- 24. **Khasa YP,** Conrad S, Sengul M, Plautz S, Meagher MM and Inan M (2011) Isolation of *Pichia pastoris PIR*-gene family and their utilization for cell surface display and recombinant protein secretion. *Yeast*, 28: 213–226. (**IF: 3.24**)
- 25. Kuhad RC, Gupta R, Khasa YP, Singh A and Percival Zhang YH (2011) Bioethanol production from pentose sugars: Current status and future prospects *Renewable & Sustainable Energy Reviews*, 15: 4950–4962 (IF: 14.98)
- 26. Gupta R, **Khasa YP** and Kuhad RC (**2011**) Evaluation of pre-treatment methods in improving the enzymatic saccharification of Cellulosic materials. *Carbohydrate Polymers*, 84:1103–1109. (**IF: 9.38**)
- 27. Shrivastava B, Thakur S, Khasa YP, Gupte A, Puniya AK, and Kuhad RC (2011) White rot fungal conversion of wheat straw to energy rich cattle feed. Biodegradation, 22(4):823-31. (IF: 3.9)
- **28.** Gupta R, Mehta G, **Khasa YP**, and Kuhad RC (**2011**) Fungal delignification of lignocellulosic biomass improves the saccharification of cellulosics. *Biodegradation*, 22(4):797-804. (**IF: 3.9**)
- 29. Tapryal S, **Khasa YP** and Mukherjee KJ (**2010**) Single chain Fv fragment specific for human GM-CSF: Selection and expression using a bacterial expression library. *Biotechnology Journal*, 5:1078-1089. (**IF: 4.677**)
- **30.** Kuhad RC, Gupta R, **Khasa YP** and Singh A (**2010**) Bioethanol production from *Lantana camara* (Red sage): Pretreatment, Saccharification and Fermentation. *Bioresource Technology*, 101(21):8348-8354. (**IF: 9.64**)

- **31. Khasa YP**, Khushoo A, Srivastava L and Mukherjee KJ (**2007**) Kinetic studies of constitutive hGM-CSF expression in continuous culture of *Pichia Pastoris*. *Biotechnology Letters*, 29: 1903-1908. (**IF: 2.46**)
- **32. Pal** Y, Khushoo A and Mukherjee KJ (**2006**) "Process optimization of constitutive human granulocyte macrophage colony stimulating factor (hGM-CSF) expression in Pichia pastoris fed batch culture". *Applied Microbiology and Biotechnology*, 69: 650-657. (**IF: 4.81**)
- **33.** Khushoo A, **Pal Y** and Mukherjee KJ (**2005**) "Optimization of extracellular production of recombinant asparaginase in Escherichia coli in shake-flask and bioreactor". *Applied Microbiology and Biotechnology*, 68: 189-197. (**IF: 4.81**)
- **34.** Khushoo A, **Pal Y**, Singh BN, and Mukherjee KJ **(2004)** "Extracellular expression and single-step purification of recombinant Escherichia coli L-asparaginase II". *Protein Expression and Purification*, 38(1):29-36. **(IF: 1.65)**
- **35.** Pal Y, Gupta JC and Mukherjee KJ (2001) "Optimizing recombinant protein expression in the T7 system under the control of the proUp promoter". *Biotechnology Letters*, 23: 41-46. (**IF: 2.46**)

b. Book Chapters Published

- Khasa YP and Mohanty S (2021) "Growth Physiology and Kinetics" in Fundamentals of Bacterial Physiology and Metabolism Editors: Prof. Rani Gupta and Dr. Namita Gupta by Springer Singapore, Chapter 5: Pages 137-179. ISBN 978-981-16-0723-3.
- Mohanty S, Babbal, and Khasa YP (2021) "Heterologous protein expression in yeast and moulds" in Progress in Mycology: Biology and Potential Biotechnologies, Editors: Satyanarayana T, Deshmukh SK & Deshpande M.V. by Springer Singapore, Chapter 21 (In Press)
- 3. Babbal, Adivitiya, Mohanty S and Khasa YP (2019) "Enzymes as Therapeutic Agents in Human Disease Management" in A handbook on high value fermentation products Editors: Saurabh Saran, Vikash Babu, Asha Chaubey by Scrivener Publishing LLC, USA. Volume 1 Chapter 10, Page 225-264.
- **4.** Babbal, Adivitiya and **Khasa YP (2017) "MICROBES AS BIOCONTROL AGENTS"** in **Probiotics and Plant Health** Editors: Vivek Kumar, Dr. Manoj

- Kumar, Dr. Shivesh Sharma, and Dr. Ram Prasad published by Springer; Chapter 24, Page 507-552.
- 5. Adivitiya, Dagar VK, and Khasa YP (2017) "Yeast expression systems: Current status and future prospects" Yeast Diversity in Human Welfare Editors: Tulasi Satyanarayana & Gotthard Kunze published by Springer; Chapter 9, Page 215-250.
- 6. Kumar S, Dagar VK, Khasa YP and Kuhad RC (2013) Genetically Modified Microorganisms (GMOs) for Bioremediation in "Biotechnology for Environmental Management and Resource Recovery" published by Springer Chapter 11, Page 191-218.
- 7. Kuhad RC, Gupta R and Khasa YP (2012) Microbial decolorization of colored industrial effluents. "Microbes in Environmental Management and Biotechnology" published by Springer Editors, Satyanarayana T and Johri BN. Chapter 35: Page 787-813.
- 8. Kuhad RC, Gupta R and Khasa YP (2011) Bioethanol production from lignocellulosics: an overview. In: Wealth from waste Edited by Dr. Banwari Lal Teri Press Chapter 2: 53-106.

Sponsored Research Project from various Government Funding agencies at present in Laboratory:-

| S.N. | Funding | Title of Project | Duration | Amount |
|------|---------|---|----------|-------------|
| | Agency | | | |
| 1 | DBT | Development of a scalable expression platform | 2 Years | 39.15 Lakhs |
| | (PI) | for the overproduction of commercially | | Ongoing |
| | | important novel Ubiquitin-Like proteases (Ulps) | | |
| | | from Schizosaccharomyces pombe in | | |
| | | Escherichia coli (29-02-2020 to 28-02-2022) | | |
| 2 | STARS | Designing and large scale production of | 3 Years | 48.84 Lakhs |
| | (MHRD) | recombinant single chain antibody (scFv) | | Ongoing |
| | (PI) | against human Tumor Necrosis Factor alpha | | |
| | | (hTNF-alfa) (31-12- 2019 to 30-12-2022) | | |
| 3 | SERB | Genome mining of Pichia pastoris for the | 3 Years | 39.59 Lakhs |
| | (PI) | development of yeast cell surface display | | Ongoing |
| | | technology using its native cell wall anchoring | | |
| | | proteins: bioprocess optimization and its | | |
| | | biotechnological applications. (26-03-2019 to | | |
| | | 25-03-2022) | | |

| 4. | DRDO | Process Development for enzymatic synthesis of | 3 Years | 33.13 Lakhs |
|----|----------|--|---------|-------------|
| | (Co-PI) | L-theanine, a Nutraceutical, using gamma- | | Completed |
| | | glutamyl transpeptidase from Bacillus | | |
| | | licheniformis | | |
| | DDE (DI) | (18-09-2018 to 17-09-2021) | 2.77 | 20.50 1.11 |
| 5. | DBT (PI) | Cloning Expression and Bioprocess | 3 Years | 30.50 Lakhs |
| | | Optimization of Recombinant human | | Completed |
| | | Interleukin-7 (hIL-7) in methylotrophic yeast | | |
| | | Pichia Pastoris | | |
| | | (16-06-2011 to 15-06-2014) | | |
| 6. | DST (PI) | Bioprocess optimization of human Granulocyte | 3 Years | 25.00 Lakhs |
| | | Macrophage Colony Stimulating Factor (hGM- | | Completed |
| | | CSF) expression in Escherichia coli. | | |
| | | (04-05-2012 to 03-05-2015) | | |
| 7. | UGC (PI) | Bioprocess optimization of scFv Production | 3 Years | 8.45 Lakhs |
| | | against hGM-CSF in Methylotrophic yeast, | | Completed |
| | | Pichia pastoris | | |
| | | (26-07-2012 to 25-07-2015) | | |
| 8. | DBT(PI) | Bioprocess development of recombinant | 3 Years | 51.59 Lakhs |
| | | therapeutics in Pichia pastoris: Human | | Completed |
| | | Interleukin-3 (hIL-3) as a model system | | _ |
| | | (22-04-2013 to 21-04-2016) | | |

Honors/Awards/Addition courses

- **Resource Person** to deliver Lectures titled "**Recombinant Therapeutic Production and Innovation**" in Faculty Induction Programme-IV organized by **HRDC- Jawaharlal Nehru University**, New Felhi-110067 on 15.02.2021.
- One Day Short Term Course on "Academic Leadership Program for Academicians on 'Role of Teachers in National Education Policy (NEP): Awareness, Orientation, Challenges & Responses' on March 22, 2021 by Centre for Professional Development in Higher Education (CPDHE) UGC-HRDC University of Delhi-110067.
- Resource person to deliver talk titled "Expression of Recombinant Therapeutics in Heterologous Systems" on 18-03-2021 in the Refresher course-Summer school (Synthetic Biology) from March 16-29 2021 organized by UGC-Human Resource Development Centre Guru Nanak Dev University, Amritsar, Punjab-143005.

- Resource person to deliver talk titled "Bioprocess Development for Recombinant Proteins: Product development and Innovations" on 18-03-2021 in the Refresher course-Summer school (Synthetic Biology) from March 16-29 2021 organized by UGC-Human Resource Development Centre Guru Nanak Dev University, Amritsar, Punjab-143005.
- **Faculty Development Programme (One Week)** on "Digital pedagogy to enhance teaching and learning experience" by Maitreyi College, University of Delhi, in association with GAD-TLC, SGTB Khalsa College, under MOE, Govt. of INDIA (PMMMNMTT) scheme between **15**th to 21st, December 2020.
- Paculty Development Programme (One Week) on "Moving Towards New Normal through Effective Online Teaching" (1st to 7th December, 2020) organized by Kalindi college in collaboration in Mahatma Hansraj Faculty Development Centre (MHRFDC), Hansraj College, Delhi university under Pandit Madan Mohan Malviya National Mission on Teachers and Teaching scheme MHRD, Govt of India.
- Advanced E-tools for MOOCs Development & Research" between 1st

 September, 2020 to 14th September, 2020 organized by Motilal Nehru

 College (E) (DU) in collaboration with Teaching Learning Centre (TLC)

 Research Development and Services cell Ramanujan College

 (University of Delhi) under Pandit Madan Mohan Malaviya National

 Mission on Teachers and Teaching (PMMMNMTT) scheme MHRD,

 Govt of India.
- Best poster award during International Conference on Biotechnological Interventions for Societal Development Feb 21-23, 2020 (BioSangam-2020) at MNNIT Allahabad- 211004 UP, India. Titled "Development of a scalable expression platform for commercially important Ubiquitin-like protease (SUMO protease) in *Escherichia coli*"
- 2019 Associate Editor, BMC Biotechnology, Springer Nature
 2019 Associate Editor, 3 Biotech published by Springer, Heidelberg, Germany.

- 2019 Faculty Development Programme (One Week) No. 20 on "Recent Trends in Research Methodology, E-Content, Mathematical and Statistical Methods in Open Education World between 17th -23rd December 2019 organized by Mahatma Hansraj Faculty Development Centre (MHRFDC), Hansraj College, Delhi university under Pandit Madan Mohan Malviya National Mission on Teachers and Teaching scheme MHRD, Govt of India.
- 2019 UGC sponsored Refresher course in Life Sciences (SRC) at Centre for Professional Development in Higher Education, UGC-HRDC, University of Delhi, between 28th June to 11th July 2019 (2 weeks).
- 2019 Best poster award during National Science day Symposium 2019 held at University of Delhi South campus on February 27-28, 2019 titled "Optimization of bioprocess strategies for the overproduction of catalytic domain of ubiquitin-like protease 1 (Ulp1) in *E. coli* fed-batch culture".
- **Best poster award** during National conference (BESCON-2017) on Biological Engineering in 21st century, held at Netaji Subhas Institute of Technology, New Delhi, India from September 8-9, 2017 titled "High-level soluble expression of recombinant hTNF-alpha in fed-batch culture of *E.coli*."
- **Dr. Rana Memorial Best Poster Award** during the 57th annual conference of Association of Microbiologists of India held at Guwahati University, Guwahati, Assam from November 24-27, 2016. Abstract No. IM-05 Page No. 237 titled "Expression of bioactive recombinant streptokinase in *Pichia pastoris* fed-batch culture".
- 2015 UGC sponsored 94th Orientation Course at Academic staff college, Jawaharlal Nehru University between 23.02.2015 to 20.03.2015.
- **2013 Editorial Board Member** "Biotechnology and Molecular Biology Reviews"
- **2013 UGC sponsored Refresher course** in Life Sciences/Biological Sciences/Bio-informatics between February 25 to March 16, 2013.
- **Platinum Jubilee Best Poster Award (AMI-2013)** at the 54th annual conference of Association of Microbiologists of India at MDU Rohtak, between 17-20 November 2013. Abstract No. BTBS-16; Page no. 473 titled "Cloning. expression and purification of human-IL-3 in *E. coli*".

Association of Microbiologists of India (AMI). 2010 Best Poster Prize by The American Society for Microbiology (ASM) for the poster entitled "Influence of Ganoderma spp rekk02 treated straw on nutrient digestibility and nitrogen balance in goats" during the 51st Annual Conference of Association of Microbiologists of India at Birla Institute of Technology (BIT), Mesra, Ranchi December 14-17 2010. 2008-2009 Postdoctoral fellowship at Seattle Biomedical Research Institute, Seattle,

Young Scientist Award in "Molecular Microbiology" 2010 by

WA-USA-98109

2006-2008 Postdoctoral fellowship at University of Nebraska, Lincoln, USA-68588 2005-2006 Senior Research fellowship (Dept. of Science and Technology, Govt. of India).

2002-2004 Senior Research fellowship awarded by Council of Scientific and Industrial Research, Govt. of India.

1999-2006 Junior Research Fellow at Jawaharlal Nehru University. (Fellowship offered by Dept. of Biotechnology, Govt. of India)

June 2000 Cleared CSIR-NET Exam

1997-1999 Scholarship from Department of Biotechnology, Govt. of India, N. Delhi, India During MSc.

Invited Guest Lectures,

2010

- 1. Invited guest lecture on "Bioprocess development strategies for the production of engineered recombinant streptokinase in *Pichia pastoris*" in International Conference on Biotechnological Interventions for Societal Development Feb 21-23, 2020 (BioSangam-2020) at Motilal Nehru National Institute of Technology (MNNIT) Allahabad- 211004 UP, India.
- 2. Invited guest lecture on "Development of bioprocess strategies for the overproduction of recombinant therapeutics in Yeast expression system: Streptokinase as a case study" in International Conference on Molecular Basis of Diseases and Therapeutics (ICMBDT-2019) at Central University of Rajasthan, Kishangarh, Ajmer between March 08-10, 2019.
- 3. Invited guest lecture on "Engineering of N-glycosylation and plasmin susceptible residues of recombinant streptokinase: Process development and scale-up strategies in Pichia pastoris" in 6th Annual Bioprocessing India Conference on "Recent advancements & applications in bioprocessing for

- healthcare, bioenergy and environment" at Indian Institute of Technology, Delhi, Hauz Khas, New Delhi, 110016, India between **December 16-18, 2018.**
- 4. Invited guest lecture on "Bioprocess optimization of recombinant therapeutics in methylotrophic yeast *P. pastoris*: Streptokinase as a model protein" in 58th Annual conference of AMI titled "Microbes for Sustainable Development: Scope & Applications" at Babashaheb Bhimrao Ambedkar University (A Central University), Lucknow, Uttar Pradesh, India between November 16-19, 2017.
- 5. Invited guest lecture on "Bioprocess development for the over-production of recombinant Streptokinase in *Pichia pastoris*" in National conference on Biotechnology: Exploring through Innovations (BETI)-2017" at Central University of Haryana, Mahendergarh, Haryana, between November 13-14, 2017.
- 6. Invited guest lecture on "High level production of recombinant streptokinase in *Pichia pastoris* fed-batch fermentation" in International conference on Translational biotechnology "BioSangam 2016" between 4-6th Febrauary 2016, at Motilal Nehru National Institute of Technology (MNNIT) Allahabad-211004 UP, India.
- 7. Invited guest Lecture on "Extracellular production of recombinant Streptokinase in *Pichia pastoris*" in National seminar on "Recent advances in Agriculture, Biomedical & Environmental Biotechnology" between May 01-02, 2015 at Anand engineering college, Agra.
- Invited guest Lecture on "High level expression of active recombinant streptokinase in *Pichia pastoris*" in National conference on Evolving trends in Biotechnology between March 28-30, 2015 at Dr. Harisingh Gour Central University, Sagar, MP-470003.
- 9. Invited guest Lecture on "Recombinant therapeutics and their expression bottlenecks" in Indo-Italian workshop on food technology and cold chain management" at Amity University, Noida, UP on 26th-27th November, 2014
- 10. Invited guest Lecture on "Recent advancements in bioprocess technology: a case study of recombinant therapeutics expression in E. coli" in National conference on Bioprocess Technology: Basics, Advancements and Challenges (BTBAC 2014) on September 13th 2014 at Jaipur National University, Jaipur, Rajasthan-302017

- **11.** Invited guest Lecture on "Expression of recombinant therapeutics in *Pichia pastoris*: Human Interleukin-3 (hIL-3) as a model system" in International conference on "Frontier discoveries and emerging opportunities in Life Sciences" between February 13-15, 2014 at Dr. Harisingh Gour Central University, Sagar, MP-470003.
- **12.** Invited guest Lecture on "Therapeutic Proteins: Expression and their optimization bottlenecks" at Department of Microbiology, Punjab University Chandigarh on 20th Sept. 2013.
- **13.** Invited Guest Lecture at a training program on "Application of Modern Biotechnological Techniques in Molecular Biology Research" at Indian Veterinary Research Institute (IVRI), Mukteswar, Uttarakhand sponsored by Uttarakhand State Biotechnology Department (USBD) from December 3rd to 17th, 2012.
- 14. Invited lecture in National Science day symposium titled "Recombinant protein expression and optimization strategies" on 28th Feb. 2011 at University of Delhi South Campus, New Delhi India.
- 15. Invited Lecture in Nation Conference on Microbial Biotechnology "Microcon **2011: Microbes in the service of society**" at Punjab University Chandigarh, January 11-12, 2011.
- 16. Invited Young Scientist Lecture in 51st Annual Conference "International Symposium on Recent Advances in Cross-disciplinary Microbiology: Avenues and Challenges & International Workshop on rRNA Sequencing, Phylogeny & Next Generation Genome Sequencing" organized by Association of Microbiologists of India at Birla Institute of Technology (BIT), Mesra, Ranchi December 14-17 2010.

Conferences, Seminars attended and paper presented:

- 54th Annual conference and international symposium on "Frontier Discoveries and Innovations in Microbiology and its Interdisciplinary Relevance" by Association of Microbiologist of India (AMI) at MDU Rohtak Between 17-20 November 2013.
- 2. **3rd National science day symposium "Celebrating glory of Science"** on 27th and 28th February, 2013, at University of Delhi South Campus, New Delhi-110021.

- 3. Seminar on "PAT based Bioprocess Optimization" at ICGEB Campus, New Delhi on 8th May 2012.
- 4. 7th International Conference on Yeast Biology, Department of Biosciences & Bioengineering, Indian Institute of Technology Bombay, Powai, Mumbai–400076 from December 10-13, 2011, "Cloning and expression of recombinant human Interleukin-7 in *Pichia pastoris*" Abstract book page 59.
- 5. 3rd Annual conference and Silver jubilee symposium "Bioepoch 2011" at School of Biotechnology, Jawaharlal Nehru University, N. Delhi-110067, India on April 1-2, 2011.
- 6. Poster presentation titled "Pichia pastoris PIR system for cell surface display and recombinant protein secretion" at 6th CONFERENCE ON RECOMBINANT PROTEIN PRODUCTION in Vienna, Austria from 16-19 February 2011.
- 7. COLLOQUIUM ON "Prospects of Biotechnology" organized by Association of Microbiologists of India at Deenbandhu Chhotu Ram University of Science and Technology, Murthal (Sonepat), 19 November 2010.
- 8. COLLOQUIUM ON "Microbial Technology and its Human Benefits" organized by Association of Microbiologists of India at Maharshi Dayanand University, Rohtak, 07 August 2010.
- 9. The 58th Annual meeting of "American Society of Tropical Medicine and Hygiene" in Washington, D.C.-USA, between Nov. 18-22, 2009. Abstract has been published by American Journal of Tropical Medicine and Hygiene titled "Plasmodium falciparum Liver Stage Antigen Discovery" Abstract No. 3099.
- The 21st Annual Seattle Parasitology Conference between May 14-15, 2009, Seattle, WA-USA-98109.
- 11. "International conference in trends of emerging infectious diseases (Intracellular Pathogens)" organized by Seattle Biomedical Research Institute (SBRI) & School of Life Sciences, JNU, N. Delhi on March 8-11, 2005.
- 12. International conference on "Emerging Challenges in The Biotechnology Sector" organized by All India Biotech Association (AIBA) at National Science Academy N. Delhi, India on Aug. 10-13, 2002.
- 13. "Recombinant DNA technology in time Transition" by Biotechnology society of India (2001) at Centre for Biotechnology JNU, New Delhi, India.

- 14. "High-level expression of heterologous proteins in Yeast: A Practical course" by International Centre for Genetic Engineering and Biotechnology New Delhi 29 Oct- 9 Nov 2001.
- 15. National conference on "Emerging trends in biopharmaceutical proteins and the role of preparative/process Chromatography" at New Delhi by All India Biotech Association on 18-20 December 2000.

Date: 18-01-2022

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