CURRICULUM VITAE

Name : **RAJESH PRATAP SINGH**

Date of Birth : March 25th, 1956

Area of Research : Microbial Technology, Enzymes, Bioenergy
Molecular Biology, Bioremediation
Nanobiotechnology

Mailing Address : Professor
Department of Biotechnology
Indian Institute of Technology Roorkee
Roorkee-247 667, India
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EDUCATION:

* 1983 Ph.D.	Microbial Biochemistry Central Drug Research Institute, Lucknow Submitted to Kanpur University, Kanpur, India
* 1979 M.Sc. I, 78.3%	Biochemistry G.B. Pant University of Agriculture & Technology Pantnagar, India
* 1975 B.Sc. I, 73.4%	Chemistry, Botany, Zoology Avadh University, Faizabad, India

ACADEMIC APPOINTMENTS:

Jan 1, 2015 - to date	Professor (HAG) Department of Biotechnology Indian Institute of Technology Roorkee Roorkee-247 667, India
March 17, 2006 - Dec 31, 2014	Professor, Department of Biotechnology Indian Institute of Technology Roorkee Roorkee-247 667, India
Oct 22, 2003 - March 16, 2006	Associate Professor, Department of Biotechnology Indian Institute of Technology Roorkee Roorkee-247 667, India
Jan 01, 2001 - Dec 31, 2003	Head, Department of Biotechnology Indian Institute of Technology Roorkee Roorkee-247 667, India
Nov 1997 - Dec 1998	Visiting Scientist, Department of Biochemistry & Molecular Biology University of Arkansas for Medical Sciences Little Rock, AR, USA
April 09, 1996 – Oct 21, 2003	Assistant Professor, Department of Biotechnology Indian Institute of Technology (Formerly UOR) Roorkee-247 667, India
April 23, 1990 – April 08, 1996	Lecturer, Department of Biosciences & Biotechnology University of Roorkee Roorkee- 247 667, India
Nov 1986 – April 1990	Research Fellow, Department of Pathology, Harvard Medical School Laboratory of Immunopathology Dana Farber Cancer Institute Boston, MA, USA

July1985 – Oct 1986	Visiting Fellow, Laboratory of Biology of Viruses National Institutes of Allergy & Infectious Diseases National Institutes of Health Bethesda, USA
Oct 1983 – June 1985	Research Associate, Institute of Microbial Technology Chandigarh, India
Jan 1979 - Sept 1983	Junior & Senior Research Fellow, Division of Biochemistry Central Drug Research Institute Lucknow, India
Oct 1976 - Dec 1978	Graduate Teaching & Research Assistant Department of Biochemistry G.B. Pant University of Agriculture & Technology Pantnagar, India

AWARDS & HONORS:

1. Member, Process Innovation and Process Intensification Network , UK 2004- to date
2. Member, Environmental Biotechnology, European Federation of Biotechnology, Feb 2009 – to date
3. Member-Expert :Technical Expert Committee, Biotechnology Industry Research Assistance Council, DBT, Govt. of India, 2017-todate
4. Member-Expert Committee, Biotechnology and Bioremediation, Life Science Research Board (LSRB), DRDO, Govt. of India, April 2013-to date
5. Member : Institutional Biosafety Committee, DBT-IOC Centre for Advanced Bioenergy Research, Faridabad 2017-todate
6. Member-Expert, Committee on Genetically Modified Organisms and Food, Food Safety and Standards Authority of India, Govt. of India, New Delhi, May 2009 – 12
7. Member – Expert Committee , Bioprocess and Bioproduct Development, Department of Biotechnology, Govt. of India, Ministry of Science & Technology, New Delhi, 2008 – 2014

8. Member, Expert Committee of AICTE, Govt. of India for reviewing the AICTE sponsored projects for North Western region

9. Member, Expert Committees of Department of Science & Technology (DST) and Department of Biotechnology (DBT), Govt. of India, to review the project proposals submitted for funding

10. Member- Nature Reader Panel, Nature Publishing Group, NY, USA, 2008

11. Member, Expert Group on Bioinstrumentation, Department of Biotechnology, Govt. of India, Ministry of Science & Technology, New Delhi, Sept 2004 – 2005

12. Expert Committee , Uttarakhand State Biotechnology Department, Uttarakhand Govt., Dehradun, 2011 - 15

13. Member – Niche Area Committee for Industrial Biotechnology, Department of Biotechnology, Govt. of India, Ministry of Science & Technology, for preparing the Vision document, 2025

14. Chairman/Member of Expert Committees of Gautama Budhha Technical University, Lucknow and Uttarakhand Technical University, Dehradun for recommending approvals of M Tech programmes in Biotechnology and Bioinformatics

15. The Ph.D. thesis supervised & entitled "Bioconversion of Agro food byproducts to Gluconic acid by *Aspergillus niger*" was awarded "Innovation Potential Award 2001" by "Indian National of Academy of Engineering"

16. Visiting Scientist, UAMS, Little Rock, Arkansas, USA, Nov1997 – Dec 1998

17. Cancer Research Institute, New York, USA Award ,1988 – 90

18. Research Fellow, Harvard Medical School, Boston, 1986-88

19. Research Officer, Harvard Medical School, Boston, 1988-90

20. Visiting Fellow, NIH, Bethesda, USA, 1985-1986

21. Best paper award in the technical session at National Symposium 'Biohorizon 2006', IIT Delhi

22. Research Associate, CSIR, Govt. of India, 1983-84

23. Junior & Senior Research Fellowships of CSIR, Govt. of India, New Delhi 1979-1983

24. University teaching/Research Assistantship, G. B. Pant University, Pantnagar, 1976-78

25. National Merit Scholarship, 1972-75

TEACHING EXPERIENCE:

- ✓ Total period of teaching: 29 years (July 1990 to date).
- ✓ Postgraduate Courses taught:

  Cellular and Molecular Biology, Genetic Engineering, Microbiology, Recombinant DNA Technology, Immunology & Immunotechnology, Applied Microbiology, Vaccine Development & Production, Enzymology & Enzyme Technology, Molecular Carcinogenesis & Therapy, General Biology, Biotechnology Laboratory I, II, & III, Nanobiotechnology.

- ✓ UndergraduateCoursestaught:

  Principles of Biotechnology, Fundamentals of Biotechnology, Immunotechnology, Nanobiotechnology

NOTABLE ASSIGNMENTS / RESPONSIBILITIES:

1. Head, Department of Biotechnology, IIT Roorkee (Formerly University of Roorkee), Roorkee, Jan 01, 2001 – Dec 31, 2003; Officiated as Head, July-Dec 2011 and also Officiated as Head of this Deptt. and also of Center of Nanotechnology, IIT Roorkee on several earlier occasions
2. Member, Institute Administrative Committee, IIT Roorkee, 2001- 2003, 2006-2011
3. Member, Executive Committee of Senate, IIT Roorkee, 2002-2003
4. Member, Senate, IIT Roorkee, 2002-2003 and 2005- to date
5. Institute Grievance Redressal and Monitoring Officer, IIT Roorkee, 2017 - to date
6. Chairperson, Institute Human Ethics Committee, 2008 - to date
7. Member, Academic Council, University of Roorkee, 1993-95, 2001
8. Chairman, Executive Committee of the Department (ECD), Department of Biotechnology, IIT Roorkee, 2001- 2003

9. Chairman, Departmental Faculty Board, Department of Biotechnology, IIT Roorkee, 2001- 2003

10. Officer on Special Duty, Security, IIT Roorkee, March 10, 2004-2006

11. Member, Postgraduate Academic Programme Committee, Department of Biosciences & Biotechnology, University of Roorkee, Roorkee: 1990 to 2000.

12. Member, Department Research Committee, Department of Biotechnology, IIT Roorkee, 2002-2005

13. Chairman, Department Academic Studies Committee, Department of Biotechnology, IIT Roorkee, 2006-to date

14. Chairman, Purchase Committee, Purchase of Equipments from MHRD Non Plan Allocation, Department of Biotechnology, IIT Roorkee, 2006-07, 2009-2011

15. Professor-in Charge, Guest House, IIT Roorkee, 2006-2011

16. Member, Advisory Committee for Educational Technology Cell, IIT Roorkee, May 2004 – 2006

17. Member, Intellectual Property Rights Cell, IIT Roorkee, 2004-2006

18. Member, Commercial Establishment Committee, IIT Roorkee, April 2004 -2005.

19. Member, Discipline Committee of the IIT Roorkee, 2004 – 2005

20. Chairman, Biomedical Waste Disposal Committee to frame guidelines for disposal of Biomedical wastes, 2004

21. Member, Expert Committee for Selection of Faculty at GB Pant University,Pantnagar, March 16 2011

22. Member, Expert Committee for Selection of Faculty, Banasthali University, June 23-24, 2012

23. Member, Expert Committee for Selection of Faculty MNIT Allahabad, Aug 18, 2012

24. Member, Expert Committee for Selection of Faculty at Delhi Technological University, Delhi, Aug 30, 2009

25. Member, Expert Committee for Selection of Faculty at Thapar University Patiala, June 25, 2010

26. Member, Expert Committee for Selection of Faculty HNB University, Srinagar Garhwal

27. Member, Expert Committee for Selection of Scientist at IIP Dehradun

28. Member, Expert Committee for Selection of Faculty, JIIT University, Noida

29. Member, Expert Committee for Selection of Faculty, JUIT, Solan

30. Member, Expert Committee for Selection of Faculty MIET, Meerut Jan 2008

31. Member, Expert Committee for Selection of Faculty IFTM University, June 19, 2011, 2016, 2018

32. Member, Expert Committee for Selection of Faculty at MIT Moradabad Dec 29, 2007

33. Member, Expert Committee for Selection of Faculty Graphic Era University, Dehradun

34. Member, Expert Committee for Selection of Faculty at Madahrao Scindia Institute of Technology, Gwalior, Jan 30, 2010; Sept 01, 2008

35. Member, Expert Committee for Selection of Faculty at Mangalayatan University, Aligarh, Aug 29, 2011 and March 14, 2010

36. Member, DBT Advisory Committee , HNB Garhwal University, Srinagar, Nov 8, 2010

37. Paper setter/ examiner for Universities and Commissions

38. Staff Advisor, University Gymnasium, 1993-1996; Warden, Ganga Bhavan 1999-2000; Chief Warden, Ravindra Bhawan, 2004-2006

39. Co-convener, DBT National Workshop on Bioenergy - 2018, IIT Roorkee, July 6 -7, 2018

40. Member, Organizing Committee, National Seminar on Biofertilizers: Prospects and Constraints, University of Roorkee, Roorkee, India, April 15, 1997

41. Member, Organizing Committee, International Satellite Symposium on Complex Carbohydrates, University of Roorkee, Roorkee, India, Sept. 15-16, 1994

42. Member, Organizing Committee, National Symposium on Biophysics: 21-23 February 2003 & International Workshop on Education and Capacity Building in Biophysics: Needs of the Asian African Region, 24-25 February 2003, Department of Biotechnology, IIT Roorkee

43. Organizing Secretary, National Workshop on IPR Curriculum for Engineering and Science Students, March 18-19, 2005, IIT Roorkee

44. Convener, Security and Traffic Control, Convocation 2005, IIT Roorkee

45. Convener, Accommodation for Guests, Convocation 2006, 2007-2011, IIT Roorkee

46. Member-Expert, Committee for recommending 'Young Scientist Award in Environmental Microbiology 'of Association of Microbiologists of India, 2005 – till date

47. Member, Board of Studies in Microbiology, Devi Ahilya University, Indore, 2005-2008,Gautam Buddha University, Greater Noida, 2009-to date; JIIT Noida, 2012-to date; Sharda University, Greater Noida, 2011- to date; Uttarakhand Technical University, Dehradun, 2011- to date, VIT University Bhopal, 2018-to date

48. Member, Biotechnology Research Committee, Swami Rama Himalayan University, Jollygrant, Dehradun, 2018 - todate

49. Convener, Biotechnology, IIT Roorkee, National Programme on Technology Enhanced Learning, MHRD, Govt. of India, June 2009 – 2011

50. Chairman/Member of Several Expert Committees of UP Technical University, Lucknow, Uttarakhand Technical University, Dehradun for review and approval of M.Tech programmes in Biotechnology and Bioinformatics

Ph.D. THESIS EXAMINER:

1. IIT Madras
2. IIT Delhi
3. IIT Bombay
4. JNU, New Delhi
5. BHU Varanasi
6. NIT Raipur
7. Delhi University, New Delhi
8. Jamia Milia University, New Delhi
9. Gujarat University Ahmedabad
10. G B Pant University, Pantnagar
11. Gautam Buddha Technical University, Lucknow
12. Gautam Buddha University, Greater Noida
13. Rajiv Gandhi Technical University, Bhopal
14. Jiwaji University, Gwalior
15. HNB University, Srinagar
16. IFTM University, Moradabad
17. CCS University, Meerut

18. UP and Uttarakhand Technical University
19. Anna University, Chennai
20. And Several others

REVIEWER FOR THE JOURNALS:

1. Letters in Applied Microbiology, (Blackwell, UK)
2. Journal of Applied Microbiology (Blackwell, UK)
3. Water Research (Elsevier, The Netherlands)
4. World J Microbiology and Biotechnology (Springer, The Netherlands)
5. Enzyme and Microbial Technology (Elsevier, UK)
6. Process Biochemistry (Elsevier, France)
7. Journal of Environmental Management (Elsevier, USA),
8. Biotechnology and Molecular Biology Reviews (Academic Journals, Malaysia)
9. And Several Others

RESEARCH EXPERIENCE: 35 years

Areas of Research Interests:

1. Microbial Bioconversion
2. Proteomics & Genomics,
3. Enzyme Engineering
4. Recombinant DNA technology
5. Bioenergy
6. Bioremediation
7. Nanobiotechnology and drug delivery

Specialized Training Courses/Workshops Attended:

1. "Workshop on Sophisticated Instruments" held at RSIC, CDRI, Lucknow, India, Oct 4-12, 1982.

2. "Gene Cloning and DNA Sequencing" held at School of Biological Sciences, Madurai Kamraj University, Madurai, India, Dec 31, 1984 to Jan 21, 1985.
3. "Radiation Safety in the Laboratory" held at NIH, Bethesda, MD USA, Aug 01-31, 1985.

Invited Lectures/Presentation in Conferences:

1. Regulation of Tcr gene expression in resting T cells. *G B Pant University, Pantnagar*, August 25, 1992.

2. Isolation and characterization of microorganisms with potential abilities for sterol biotransformation into therapeutic steroids. *National Symposium on Progress in Hormone Research*, D A University, Indore June 20-22, 1994.

3. Internalization of *Bacillus anthracis* lethal toxin into mammalian cells. *4th International Symposium of Cell Surface Macromolecules,* New Delhi, Jan 6-10, 1996

4. Analysis of cellulases and B-glycosidase produced by co-cultivation of *Aspergillus niger* RK-3 and *Trichoderma reesei* MTCC Using *Eicchornia* sp biomass as a lignocellulosic waste. *National Symposium on Bimolecular Electronics,* NPL, New Delhi, Sept 16-17, 1999.

5. Analysis of cellulases produced by a mutant of *Aspergillus niger* with *Eicchornia crassipes* biomass. *National Symposium On Lignocellulose Biotechnology present and future prospects*, University of Delhi, South Campus, Delhi, Dec.10, 2001

6. Gene therapy: Present and future perspectives, *Bioinformatics Institute of India,* Noida, January 29, 2001.

7. Gluconic acid production under varying fermentation conditions by *Aspergillus niger*. *Process Innovation and Process Intensification Conference* Heriot-Watt University, Edinburgh, Scotland, UK. Sept 8-13, 2002.

8. Central Dogma of Molecular Biology, *Bioinformatics Institute of India*, Noida, Oct 05, 2002

9. Engineering of Xylanolytic Organisms and Enzymes for Pulp and Paper Industries. *Indo-US Workshop & National Congress on Molecular Biology & Biotechnological Symbiosis,* JNU, New Delhi, March 23-28, 2003.

10. Opportunities in Microbial Diversity and Role of Biological Resource Centres: Brain Storming Session. In Identification, Preservation and Conservation of Agriculturally Important Microorganisms and Use of Potential Molecular Tools for Their Identification. *NBAIM-CAB International, UK Joint Workshop, NBAIM*, Pusa Campus, New Delhi, March 16-17, 2004.

11. Microbial Resources for Lactic Acid Production, *International conference; Bioconvergence, 2004, Thapar University, Patiala, November 18-20, 2004.*

12. Microbial Resources and Biobleaching, *International Conference on Microbial Diversity; Current Perspectives and Potential Applications*, University of Delhi, April 16-18, 2005.

13. Enzyme Concoction a Possible Resource for Biobleaching , *National Conference on Scope and Applications of Microbes: CSJM University*, Kanpur, 2007.

14. Bioprocesses for Production of Enzyme Concoction, *National Conference on Microbial Resources, Delhi University,* 2009.

15. Fungal Laccases: Production, Molecular Features and their Applications *International Conference on New Horizons in Biotechnology*, NIIST Trivandrum, Nov 21-24, 2011.

16. Molecular Cell Signaling and LDL receptor Gene Expression. *International Conference on Industrial Biotechnology, Punjabi University, Patiala,* India November 21-23, 2012.

17. Workshop on Hands-on-Training Programme on Modern techniques in Biotechnology, Jan 7-12, 2013, Deptt of Biotechnology, IIT Roorkee.

18. Tyrosinase - an enzyme with therapeutic potential : production and application. *National Conference on Basic Biology is the Core of Biotechnology* October, 30-31, 2017, Banasthali University, Banasthali, India

19. Biofuels from Microalgae: Perspective on Engineering Strategies for Improving Lipid Production, *DBT National Workshop on Bioenergy-2018*, July 6-7, 2018, IIT Roorkee, Roorkee, India

20. Microalgal Biofuel : Strategies and Implications, *3rd International Conference on Sustainable Energy & Environmental Challenges*, Dec 18-20, 2018, IIT Roorkee, Roorkee, India

21. Enhanced Lipid Production in Microalgae as a Biodiesel Feedstock: Biochemical and Molecular Factors, *DBT National Workshop on Bioenergy-2019*, Oct 17-18, 2019, Organized by IIT Kharagpur, Kolkata, India

RESEARCH PROJECTS:

1. "Regulation of rpt-1: an intracellular inducer/helper T-cell protein that affects HIV-1 and IL-2r expression", Cancer Research Institute, New York, USA, 1988 – 1990, Rs 25.0 Lakhs

2. Minor Projects, UP Government, Lucknow, 1990-95, Rs 2.0 Lakhs

3. "Microbial Biosynthesis of Steroids Especially for Combating Stress in Armed Forces

Personnel", DRDO, New Delhi, 1992-1995, Rs 3.00 Lakhs

4. "Cell Surface Membrane Glycoprotein: Biosynthesis, Regulation and Function", DST, New Delhi, 1992 – 1995, Rs 8.63 Lakhs,

5. "Steroid 16a-hydroxylase: Immunochemical characterization and development of a molecular probe", UGC, New Delhi, 1993 –1996, Rs 2.5 Lakhs

6. "Development of Potent Microbial Strains and Critical Analysis of factors for Continuous Production of Gluconic acid", UPCST, Lucknow, 2000 – 2002, Rs 2.0 Lakhs

7. "Bioprocess Development for Gluconic Acid Production from cheap carbohydrate sources", AICTE, New Delhi, 2002-2005, Rs. 12.0 Lakhs

8. "Fund for Improvement for Infrastructure in Science & Technology", DST, New Delhi, 2003-2008, Rs 28.0 Lakhs

9. "Production of alkalophilic microbial xylanases for rural based paper industries", DST, New Delhi, 2008-2010, Rs 10.96 Lakhs (supervised)

10. "Study of molecular mechanism of action of curcumin in protein misfolding", DST, New Delhi, 2010-2013, Rs 21.88 Lakhs (supervised)

11. "Evaluation of antimicrobial ingredients of some Indian ethnomedicinal plants mainly from compositae, verbanaceae, apocyanaceae and liliaceae families from outer Himalayan region", DRL, DRDO, Tezpur, 2010-2013, Rs 10.0 Lakhs

12. "Ganga River Basin Management Plan Project", Ministry of Environment and Forest, Ecology and Biodiversity Group, 2010-2012, Rs 38.0 Lakhs

13. "*De novo* production of Triacylglycerol (TAG) accumulating genetically engineered yeast strains as Model for Advanced Biofuels", Biocare DBT, New Delhi, 2011-2014, Rs. 47.87 Lakhs

14. "Cloning and Production of a Genetically Improved L-Asparaginase from *Escherichia coli* ", DBT, New Delhi, 2012-2015, Rs 44.29 Lakhs

15. "Development of Engineered Microalgae for Enhanced Lipid Accumulation", DBT, New Delhi, 2015-2020 Rs. 83.78 Lakhs

CONSULTANCY PROJECT:

1. Evaluation of Twiga Insul (Glass Wool) against Fungi and Bacteria, U P T F, Bulandshahr, UP, Aug 2002 – Jan 2003.

DETAILS OF THE Ph.D. THESIS SUPERVISED:

Awarded : 23
In Progress : 02

1. Bioprocess development of Citric acid production, *Mr. Sanjay Gupta, April 1995*
   Co-Sup : Prof. C. B. Sharma

2. Molecular and biochemical studies on anthrax lethal toxin, *Mr. P K Swain, April 1996*
   Co-Sup : Dr. Y. Singh

3. Influence of salinity on plant metabolism: some physiological and Biochemical changes in peanut seedlings (*Arachis hypogea* L.) with particular reference to cell wall proteins, *Ms. Neerja Srivastava, November 1996*
   Co-Sup : Prof. V. Sharma

4. Immunogenicity of plasma membrane proteins of *Mycobacterium* Species, *Ms. Anjana Mittal, October 1998*
   Co-Sup : Dr. A. K. Rastogi

5. Bioconversion of agro-food byproducts to Gluconic acid by *Aspergillus niger, Mr. Om Vir Singh, November 2000*
   Co-Sup : Prof. Ben M J Periera (Added later since I was on visiting faculty leave for one year at USA)

6. Studies on production of Itaconic acid by *Aspergillus terreus, Mr. C S K Reddy, November 2000,* Co-Sup : Prof. Ben M J Periera, (Added later since I was on visiting faculty leave for one year at USA)

7. Microbial production of Cellulases for bioconversion of lignocellulosic wastes, *Mr. Raj Kumar, September 2001*

8. Studies on biodegradation of chlorophenols by *Rhodococcus, Ms Mandira Goswami, November, 2003*
   Co-Sup : Prof. A. K. Srivastava, Dr. N. Shivaraman

9. Studies on the kinetics and modeling of L-Glutamic acid fermentation, *Md. Noor Salam Khan, September 2005,* Co-Sup : Prof. I. M. Mishra

10. Bioconversion of cheaper carbohydrate sources for lactic acid production, *Ms. Ruma Ganguly, September 2005*

11. Studies on the microbial production of xylanase by *Aspergillus niger, Ms. Nidhi Kapur, September 2005*

12. Bioconversion of molasses for gluconic acid production. *Mr. Amit Sharma, September 2006*

13. Studies on the microbial production of laccase by *Aspergillus fumigatus,* Mr. *Vivekanand, Feb 2009*

14. Microbial production and application of alkalitolerant xylanases by *Penicillium oxalicum, Ms. Pallavi Dwivedi, Nov 2009*

15. Microbial production and characterization of chitin deacetylase by *Penicillium oxalicum, Ms. Nidhi Pareek, Nov 2011*

16. Production of Microbial cellulase and xylanase enzymes and their role in waste paper recycling, *Mr Alok Kumar, May 2012*
    Co-Sup : Prof. Dharm Dutt, Dr. C. H. Tyagi

17. Biochemical and Molecular Studies on the Degradation of Azo dyes by *Penicillium oxalicum, Ms Samta Saroj, Feb 2015*

18. Designing of Gellan based Electrosoun Nanofibers for Biomedical Applications, *Ms. Priya Vashisth, Jan 2016, Prof. V. Pruthi*

19. Biochemical and structural studies on CheR methyl transferase from *Bacillus subtilis.* *Ms. Monu Batra, Aug 2016,* Co-Sup : Dr. S. Tomar

20. Studies on Production and Application of L- Tyrosinase from *Aspergillus niger, Ms. Pragati Agarwal, Sept 2017*

21. Studies on Production and Application of Bacterial Cellulose, *Ms. Swati Dubey, Sept 2018*

22. Biochemical and molecular factors for enhanced lipid accumulation in microalgae, *Ms. Jyoti Singh, Oct 2019*

23. Polymeric nano-carriers for targetetd delivery of hydrophobic drugs, *Ms. Mukta Singh, Oct 2019*

24. Studies on marine bacteria for L-asparaginase with improved therapeutic potential. *Ms. Namrata Chakravarty, Dec 2016, Ongoing*

25. Studies on the microbial approaches for the bioremediation of azo dyes,
Ms. Anshu Mathur, Dec 2017, Ongoing

M.Sc. DISSERTATIONS SUPERVISED : 57

M. Tech. PROJECTS SUPERVISED : 03

B. Tech. PROJECTS SUPERVISED : 11

MEMBERSHIP OF PROFESSIONAL SOCIETIES:

- Life Member, Association of Microbiologists of India
- Life Member, Society of Biological Chemists, India
- Life Member, Bioinformatics Institute of India
- Elected Member, New York Academy of Sciences
- Life member, Biotechnology Research Society of India

MEMBERSHIP OF EDITORIAL BOARDS:

- *Journal of Biotechnology and Phytochemistry*, Allied Academics, London , UK
- *International Journal of Molecular Biology and Molecular Imaging,* Scient Intl publs, New York, USA
- *Archives in Biomedical Engineering & Biotechnology*, Iris publ, CA, USA
- *Journal of Applied Biotechnology & Bioengineering*, MedCrave Group, OK, USA
- *International Journal of Molecular and Organismal Sciences*, Cafet-innova Publ, Operational from Nottingham Trent Univ. UK
- *Biosciences*, Scientific Research Publ., USA
  Biotechnology : An Indian Journal, Trade Sc publs, Hyderabad, India, Hampshire, UK
- *Journal of Bioinformatics and Biotechnology*, Medplus publs, New Jersey, USA

RESEARCH PUBLICATIONS:

Refereed Papers : 78
Book Chapters : 12
Patents : 01

Conf Papers
International : 65
National : 24

RESEARCH PAPERS:

1. **Singh, R.P.**, Kaul, S.M. and Shukla, O.P. (1980). Microbial decomposition of Pyridine carboxylic acids and isoniazid by *Bacilli*. *Ind. J. Exp. Biol.*, 18, 1514-1517.

2. Kaul, S.M., **Singh, R.P.** and Shukla, O.P. (1981). Metabolism of pyridine-N-oxide by *Artrobacter* sp., *Ind. J. Biochem. Biophys*. 18S, 112.

3. **Singh, R.P.** and Garg, G.K. (1983). Effect of diethyl malonate and alpha picilinic Acid on levels of inorganic nitrogen and tricarboxylic acid cycle enzymes in L- alanine utilizing *B. brevis*. *Ind. J. Biochem. Biophys.* 20, 39-42.

4. **Singh, R.P.** and Shukla, O.P. (1986). Isolation, characterization and metabolic Pathways of a *Bacillus* sp degrading isonicotinic acid and ionized. *J. Ferment. Technol.* 64, 109-117.

5. **Singh, R.P.** and Natarajan, V. (1987). Isolation and characterization of sequence Specific DNA binding factor using affinity chromatography. *Biochem. Biophys. Res. Comm.* 147, 65-70.

6. Patarca, R., Schawartz, J., **Singh, R.P.**, Kong, Q.T., Murphy, E., Anderson, Y., Sheng, F.Y., Singh, P., Johnson, K. A., Guarangia, S.M., Durfee, T., Blattner, F and Cantor, H. (1988). Rpt-1: an intracellular protein from inducer/helper T-cells that regulates gene expression of the interleukin-2receptor and the human immunodeficiency virus type I. *Proc. Natl. Acad. Sci. USA.* 85, 2733-2737.

7. Patarca, R., Freeman, G.J., **Singh, R.P.**, Sheng, F.Y., Durfee, T., Blattner, F., Regnier, D.C., Kozak, C.A., Mock, B.A., Morse, H.C., Jerrells. T.R and Cantor, H (1989). Structural and functional studies of Eta-1 (Early-T-lymphocyte Activation -1) gene: Definition of a novel T-cell dependent re4sponse associated with resistance to bacterial infection. *J Exp. Med.* 170, 145-161.

8. Patarca,R., **Singh, R.P.**, Schwartz, J.L. and Cantor, H. (1989) Functional Characterization of the Eta-1 (Early T-lymphocyte activation -1) gene product and It's association with auto-immunity. *FEBS Letters.* 5, 1731.

9. Patarca, R., **Singh. R.P.** and Cantor, H. (1989). Gene regulatory cascade in T-cells and HTLV-1 tax gene product. *Recent Adv. Pharmacol. Therap* Eds. M.Velasco, A. Israel, E. Romero, H.Silva. Elsevier Sc. Publ. Biomed. Div. 195-198.

10. Patarca, R., **Singh, R.P.**, Durfee, T., Freeman, G.J., Blattner, F and Cantor, H. (1989). Definition of T-cell specific DNA binding factor that interact with a 3'-silencer in CD4+ T cell generpt-1. *Gene,* 85, 463-471.

11. Schwartz, J, **Singh, R.P.**, Teicher, B., Wright, J.E., Trite, D.H. and Shklar, G.(1990) Induction of a 70kD protein associated with selective cytotoxicity of beta-carotene in human epidermal carcinoma. *Biochem. Biophys. Res. Comm.* 169, 941-946.

12. **Singh, R.P.**, Patarca, R., Schwartz, J., Singh, P. and Cantor, H. (1990).Definition of specific interaction between early T-lymphocyte activation-1 (eta-1) protein and murine macrophages. *J Exp. Med.* 171, 1931-1942.

13. Patarca, R. **Singh, R.P.**, Wei, F.Y., Iregui, M.V. Singh, P. Schwartz, J and cantor, H. (1990). Alternative pathways of T-cell activation and positive clonal selection. *Immunol. Rev*. 116, 85-100.

14. Swain,P.K., Sarkar, N.K., Sharma,M., Goel,S., **Singh, R.P.** and Singh, Y. (1997). Cytotoxicity of antrax lethal factor microinjected into macrophage cells through Sendai Virus Envelope. *Ind. J Biochem. Biophys.* 34, 186-191.

15. Singh, O.V, Pereira, B.M.J and **Singh, R.P** (1999). Isolation and characterization of a potent fungal strain *Aspergillus niger* ORS-4 for gluconic acid production. *J. Sc. Ind. Res*. 58, 594-600.

16. Singh, O.V. and **Singh, R.P.** (1999). Isolation and mutagenesis for glucose oxidase overproducing strain of *Aspergillus niger*. Proc. 5th Asia-Pacific Biochem Engg. Conf, Thailand, p. 45-50.

17. **Singh, R.P.**, Dhawan,P., Golden, C., Kapoor, G.S., Mehta, K.D (1999). Inhibitor of p38 MAPK α-isoform induces low density lipoprotein receptor expression through activation of p42/44 MAPK cascade. *J.Biol.Chem.* 274 (28), 19593-19600.

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GenBank Accession No. KJ701548 : *Aspergillus niger PA2*
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GenBank Accession No. JQ 349066 : Penicilium oxalicum SAR-3
GenBank Accession No. Kj 184541 : *Aspergillus niger* SAR-6
GenBank Accession No.MG734654 : Bacillus *saferensis ?* Namrata