

DEPARTMENT OF ZOOLOGY  
M.D. UNIVERSITY, ROHTAK



**1. Faculty profile**

1. Name of the Faculty Member : **Dr. Minakshi Sharma**  
2. Designation : **Associate Professor**  
3. Contact : Ph.01262 393065; 09996211189  
email:sminakshi.2007@rediffmail.com

**1. Educational qualifications**

Degree	Year of passing	University/Institution
Ph.D	2005	M.D.University
PG	1994	M.D.University
UG	1992	M.D.University
Others -NET qualified		

**2. Career Profile**

Designation	Institution	Duration
Lecturer	University, college, M.D.University, Rohtak	1996 to 2009
Reader	Deptt. of Zoology, M.D.University, Rohtak	2009 to 2012

Associate professor	M.D.University, Rohtak	2012 to till date
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### 3. Research advisory.

	<b>Ph.D</b>		
<b>No. of students supervised</b>	<b>Awarded</b>	<b>Registered</b>	<b>M.Phil</b>
	01	03	-

### 4. Projects undertaken

Title of projects	Duration	Funding agency	Status	
			Completed	In progress
Preparation of triglyceride biosensors	3 years	DBT, N Delhi	Completed	-
CNT based potentiometric biosensor for nitrate determination	3 years	UGC, N. Delhi	Completed	-

### 5. Publications:

1. **Minakshi** & C.S. Pundir. Preparation of reusable enzyme strip for determination of serum triglyceride, *Indian Journal of Chemical Technology*, Vol. 12; 539-542, 2005.
2. M. Bhambi, **Minakshi** & C.S. Pundir. Preparation of oxygen meter based biosensor for determination of triglyceride in serum, *Sensors & Transducers*; Vol. 67: 561-567, 2006.

3. **Minakshi** & C.S. Pundir. Co-immobilization of lipase, glycerol kinase, glycerol-3-phosphate oxidase and peroxidase on to aryl amine glass beads affixed on plastic strip for determination of triglycerides in serum, *Indian Journal of Biochemistry and Biophysics*, Vol. 45: 111-115. 2008
4. **Minakshi** & C.S. Pundir. Construction of an amperometric enzymic sensor for triglyceride determination, *sensor and actuators B: Chemical*, Vol. 133: 251-255. 2008.
5. Narang J. **Minakshi**, Bhambi M. & Pundir C.S. Fabrication of an Amperometric Triglyceride biosensor based on PVC membrane, *Analytical letters*, Vol. 43: 1–11, 2010
6. **Minakshi** and Meenu. Biosensors for nitrate determination in drinking water and biological fluid. *Natl. Seminar on Computing Life: Raw to Refined*, Volume- 1 Pp-69-74
7. **Minakshi Sharma** and Meenu. Role of biosensors in clinical diagnosis of diseases. *Internet: Application in Research* (2011) 168-174 [ISBN: 978-81-920945-1-9].
8. **Minakshi Sharma**, Sandip K Das, Meenu, Ashok Kumar. Application of carbon nanotubes for development of genosensor. *Internet: Application in Research* (2011) 19-23. [ISBN: 978-81-920945-1-9].
9. **Minakshi Sharma** and Meenu. Enzyme based biosensors for aspartate determination in soft drinks and fruit juices. *Internet: Application in Research* (2011) 146-148 [ISBN: 978-81-920945-1-9].
10. Dash SK, **Sharma M**, Kumar A, Diagnostic techniques and treatment of meningitis. In *Meningitis: Causes, Diagnosis and Treatment*. Houllis G, Karachalios M, Eds. Nova Science Publishers Inc, New York, 2012, pp 203-223.
11. Sandip K Dash, **Minakshi Sharma**, Shashi Khare, Ashok Kumar. rmpM Gene as a genetic marker for human bacterial meningitis. *Cellular and Molecular Biology*. Volume 58, 26-30 (2012).

12. Dash SK, Sharma M, Khare S, Kumar A, *rmpM* gene as a genetic marker for human bacterial meningitis. *Cell Mol Biol (Noisy-le-Grand, France)* 2012, 58:26-30.
13. **Sharma M**, Yadav S, Dash SK, Kumar A, Nanotechnology in enzyme sensors: A review. *Proceedings of National Seminar on Challenges in Combating Diseases: Cause to Cure*, 2012.
14. **Minakshi Sharma**, Meenu, Sandeep Yadav. A review on biosensors. *Reviewed proceedings of National seminar on "challenges in combating diseases: Cause to cure"* (2012) 230-241. [ISBN: 978-81-920945-2-6].
15. **Minakshi Sharma**, Sandeep Yadav, Sandip K Dash, Ashok Kumar. Nanotechnology in enzyme sensors: A review. *Reviewed proceedings of National seminar on "challenges in combating diseases: Cause to cure"* (2012) 261-266. [ISBN: 978-81-920945-2-6].
16. Sandip K Dash, **Minakshi Sharma**, Ashok Kumar, Diagnostic techniques and treatment of meningitis. In: Houllis G, Karachalios M (ed) *Meningitis: Causes, diagnosis and treatment*, Nova Science Publishers Inc, New York, USA, 2012, pp 203-223
17. Dash SK, **Sharma M**, Khare S, Kumar A, Quick diagnosis of human brain meningitis using *Omp85* gene amplicon as a genetic marker. *Ind J Microbiol* 2013, 53(2):238-240.
18. Dash SK, **Sharma M**, Khare S, Kumar A, *Omp85* genosensor for detection of human brain bacterial meningitis. *Biotechnol Lett* 2013, 35:929-935.
19. Dash SK, **Sharma M**, Khare S, Kumar A, *rmpM* genosensor for detection of human brain bacterial meningitis in cerebrospinal fluid. *Appl Biochem Biotechnol* 2013, doi: 10.1007/s12010-013-0339-3.
20. **Sharma M**. Concept of Triglycerides Biosensor--.. *In Proc –“Promising Trends in Science Galaxy”*: 168/2013/ISBN: 978-81-920945-3-3,(August 2013)
21. **Minakshi Sharma**, Mamta sharma and C.S.Pundir :Nitrate determination in drinking water by nitrate Reductase Based Biosensor, *Journal of Basic and Applied Engg. Res.* 2014:1(14); 107-112.

22. **Sharma M.** Purification of nitrate reductase from Zea Mays by affinity chromatography -- *In Proc –Promising Trends in Science Galaxy: 130/2013/ISBN: 978-81-920945-3-3, (August 2013).*
23. **Sharma M.** Amperometric Biosensor For Nitrate Determination In Drinking Water :A Review—*In Proc.Advances in applied Physical and Chemical Science–A sustainable Approach:122/2014/ISBN:978-93-83083-72-5,(19-20<sup>th</sup> August, 2014)*
24. Mamta sharma & **Minakshi Sharma**: Physiological Analysis of Drinking Water of Faridabad city,Haryana, *J.Chemical Biological and Physical Sci.* 2015:5(2):2230-2235.
25. **Minakshi Sharma**, Mamta sharma and C.S.Pundir:Nitrate Reductase-NADH/cMWCNT based electrochemical sensor for nitrate determination , *Int. J. of Res. in Advent Tech.* 2015:3(5)5-14.
26. Ritu, Mamta Sharma, Shelly & **Minakshi Sharma**: Aspartame determination in soft drinks, *Int.J. of Res. in Emerging Sci. & Tech.* 2015:2(4) 41-44.
27. Mamta sharma & **Minakshi Sharma**: Microbial Analysis of water at Bhiwani City,Haryana. *Int.J.of Advanced Multidisciplinary Res.* 2015:3(4) 159-166.
28. Mamta sharma & **Minakshi Sharma**: Biosensor for clinical diagnosis, *Int.J.of Advanced Multidisciplinary Res*, 2015:3(4) 329-343.
29. Mamta Sharma,**Minakshi Sharma**& C.S.Pundir: Further Purification And Characterization of Nitrate Reductase from Corn Leaves (Zea mays HQPM-4) *In.J. of Recent Scientific Research*, 2015:6(4) 3755-3759.

## 6. NCBI Gene sequences:

1. Sandip K Dash, Shashi Khare, **Minakshi, Sharma**, Ashok Kumar, *Neisseria meningitidis*, strain MC58 outer membrane protein (ompM) gene partial cds. NCBI GenBank, 2010, HQ712170.
2. Sandip K Dash, Shashi Khare, **Minakshi, Sharma**, Ashok Kumar, *Neisseria meningitidis*, strain MC58 outer membrane protein (*Omp85*) gene partial cds. NCBI GenBank, 2010, HQ712171

**Refresher Course : 03**

**List of conferences/seminar /workshops attended**

## **National Conferences: 40**

### **International Conferences/Seminars: 20**

- Refresher Course from 17/09/2007 to 06/10/2007 at Academic Staff College, Kurukshetra University, Kurukshetra.
- Workshop on Patent Awareness on 21/12/2005 at Deptt. of Bio-Sciences, M.D.University, Rohtak.
- Workshop attended on 25/10/2007 at Department of Environmental Sciences and Engg. G.J.U, Hisar.
- Workshop attended from 21/08/2007 to 22/08/2007 at Advance centre for Biotechnology M.D.University Rohtak
- Water risks life, 2007 at Deptt. of Bio-Sciences, M.D. University, Rohtak.
- DST sponsored National Workshop on “Immobilized enzyme technology for Sensors” organized by Dept of Biochemistry and Genetics, M. D. University, Rohtak from Aug. 24 to Sept. 2, 2007.
- “Biological Science-A Current Perspective” March 12 -13, 2008, Dept of Botany and Zoology, Pt. NRS Govt College, Rohtak
- International conference on biosensor from June 14-17, 2009 at De Montreal University, Montreal- Canada.
- India-Japan Seminar on October 30, 2010 at Department of Biochemistry M.D.University, Rohtak.
- National Seminar on “Environmental and Health Issues”: In a changing climatic Scenario on October 14-15, 2011 at Department of Environmental Sciences, M.D.University, Rohtak.
- National Conference on “Biodiversity: Challenges and Opportunities “on February,18-19, 2011 at Department of Botany, M.D.University, Rohtak
- National Seminar on “Internet: its application in research” on March 26, 2011.
- at Department of Zoology, M.D.University, Rohtak
- Science Conclave-2011, Interaction of innovative young minds with eminent scientists. December 2-3, 2011. M. D. University, Rohtak.
- National workshop on Bioinformatics on September 14-16, 2010 at Centre for Biotechnology, MDU, Rohtak
- National Seminar on “Combating Diseases: Cause to Cure “March 23, 2012 at Department of Zoology, M.D.University, Rohtak
- 2nd National Seminars on “Microbes in Human Welfare”. March 24<sup>th</sup>, 2012 by Association of Microbiologists of India-Rohtak unit, M.D. University, Rohtak
- National Seminar on “Recent Advancements in Application of Genetics”. March, 20<sup>th</sup>, 2012. Department of Biochemistry. M. D. University, Rohtak.

- National Seminar on “Entrepreneurship Development in Food Processing Sector” 25<sup>th</sup> March, 2015
- National Conference cum Workshop on “Molecular Modeling and Drug Design” 20-21 March, 2015
- National Conference on Therapeutic Potential of Natural Products : Current Innovations & Future Trends 19<sup>th</sup> March, 2015
- National Conference on “Applied Physics and Material Science” Feb. 5-6, 2015
- 3<sup>rd</sup> International conference on” Applied Science, Environ. Engg. and Clean tech. for Sustainable, Development. 25<sup>th</sup> -26<sup>th</sup> April, 2015
- 54<sup>th</sup> Annual Conference of Association of Microbiologists of India (AMI) Nov. 17-20, 2013.
- 7<sup>th</sup> Annual Convention of ABAP & International Conference on “Plant Biotech.,Molecular medicine &Human Health, Oct. 18-20, 2013.
- National Workshop on “Genomics in Crop Improvement, Feb. 27-28, 2014.
- National conference on “Pollution mitigation for a sustainable future” Feb. 27-28, 2014.