

# Faculty Details proforma for College Web-site



Title Prof.	First Name	Ravi	Last Name	Toteja	Photograph
Designation Professor					Maria Caraca
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	University of Delhi				
	Delhi-110007				
-1					
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Email/	ravitoteja@andc.du.ac.in				
Web-Page					
	http://andcollege.du.ac.in/?q=departments/zoology/f				
	aculty/4				
Educational Qualifications					
Degree	Institution				Year
B.Sc (H)	University of Delhi				1992
Zoology					
M.Sc,	University of Delhi				1994
Zoology					
M.Phil	University of Delhi				1995
Ph.D.	University of Delhi				2001
Career Profile					

Institution	Position Held	Duration	<b>Total Experience</b>
Acharya Narendra Dev College (DU)	Professor	March 18, 2018 till date	3 years, 4 months
Acharya Narendra Dev College (DU)	Assistant Professor Associate Professor	September 1, 2000 to March 17, 2018	17 years, 6 months
IGNOU	Assistant Professor	Feb, 2001 to June 2001	5 months
Deshbandhu College (DU)	Assistant Professor	Aug, 2001 to Sept, 2001	2 months

Jamia Millia Islamia University	Assistant Professor (Guest)	July, 2002 to Sept	i, 2002 3 Months
		1st Sept, 2000 to till date	20 Years
		Feb, 2001 to June 2001	5 Months
		Aug, 2001 to Sept, 2001	2 Months
	Assistant Pro	fessor (Guest) July,	, 2002 to Sept, 2002

# Administrative Assignments

#### 2017-till date

- ➤ Acting/officiating Principal, ANDC from December 2018 till date.
- ➤ Instrumental in sanctioning of two flagship schemes namely Paramarsh and Unnat Bharat Abhiyan
- > of Government of India to the College.
- ➤ Chairperson of IBSC (Institutional Biosafety Committee) since 2018.
- ➤ Chairperson of IQAC (Internal Quality Assurance cell) since 2018.

# Vice Principal from February, 2017 to November, 2018. College Co-ordinator of DBT STAR College Scheme since 2017.

Patron of various workshops, outreach programs and seminars organized by the college.

#### 2014-2016

- > Convenor, Library Committee
- Member, Editorial Committee
- Deputy Superintendent, Foundation Course Evaluation Centre.
- Coordinator of Silver Jubilee Culmination Function: *Rajatotsav Parinati*.
- ➤ Coordinator of NAAC Team visit to the college.

#### 2012-2014

- > Secretary, Staff Council.
- Member, Governing Body of the college.
- > Convenor, Examination Committee.
- ➤ Member of Internal Assessment Committee.

#### 2010-2012

- > Member of Editorial committee.
- Convenor of add on course "Effective Communication and Personality Development through
- ➤ Theater".

- ➤ Convenor of Dramatic Society.
- Member of committee to develop guidelines for creation of an e-learning portal and online modules on the website.

#### 2008-2010

- > Member of Fellowship committee.
- > Member of Alumni committee.
- ➤ Member of Professional Development of faculty committee.

# 2006-2008

- > Member of Time table and work load committee.
- > Deputy Superintendent in the college for B category examinations of University of Delhi in 2006.
- ➤ Member of Library committee.
- > Convenor of Debating Society.
- > Member of Purchase committee.
- > Member of the Departmental committee for internal assessment.

# Areas of Interest / Specialization

Cell and Molecular Biology, Biotechnology

# Subjects Taught

Molecular Biology and Immunology

# Research Guidance

Guided various undergraduate students for the college research projects under DBT, IEDC and ELITE. 3 Post graduate students did their internship under my mentorship

UG students present their work at several National and International conferences and bring accolades in the form of awards. List of few student who worked under my mentorship and bring laurels to the college.

Name of Student	Acclodes/Awards
Senjuti Sengupta B.Sc. (H) Zoology III Year Chaitanya Raj B.Sc. (H) Physics III Year	Best paper award at National Seminar on 'New Trends in Nanotechnology and Applications' organized by Department of Physics, Atma Ram Sanatan Dharma College, September 2018.
Shiv Jangra  Bhupender Singh, Jyoti Dagar, Khushi, Anit Kumar, Simran, Sidhanth Zutshi, B.Sc. (H) Zoology II yr	Second Prize, oral presentation on 'Ciliate diversity as a cellular tool to assess soil quality', National Symposium on Man Made Diseases: An Urban Menace, Maitreyi College, Feb 11-12, 2016.

Anusha, Muskan Bhatnagar, Meenu Upadhaya, B. Sc. (H) Chemistry II yr	
Ashish Choudhary, Manu Sankar, Vikas Ahlawat, Jeeva Susan Abraham, S. Sripoorna, Seema Makhija and Ravi Toteja	First Prize, Oral Presentation on 'A low cost microbiotest for detecting insecticides by exploring behavioral and ecotoxicological response of fresh water ciliates', National Symposium on 'Recent Trends in Biology' (RTIB) organized by Zoology Department, Maitreyi College, University of Delhi, Delhi, 25 February, 2015 under Star College Scheme, DBT

#### Ph.D. supervision

- > Supervisor for two Ph.D. students
- Co-Supervisor for one Ph.D. student

# Ph.D. topics:

- Taxonomy, Phylogeny and Molecular Systematics of ciliates from Delhi, India
- > Ciliates as cellular tool to assess heavy metal toxicity. Taxonomy,
- Microorganisms as bioindicators in diverse environment
- ➤ Use of ciliates in ecotoxicological studies

#### **Publications Profile**

- 1. **Ravi Toteja**, Lathika Nair, VK Bhasin (2001) Genome comparison of progressively drug resistant *Plasmodium falciparum* lines derived from drug sensitive clone. Memoris do Instituto Oswaldo Cruz, 96(3): 427-433.
- 2. **Ravi Toteja** and Sarita Kumar (2012) "Usefulness of m- devices in education: A survey". Procedia-Social and Behavioral Sciences (67) 538-544.
- 3. Sarita Kumar and Ravi Toteja (2012) "Print to Digital: A Study of Students" psychosomatic Cost in Traditional and e-learning' Procedia-Social and Behavioral Sciences (67) 553-560.
- 4. Seema Makhija, Renu Gupta and **Ravi Toteja** (2015) Lithium-induced developmental anomalies in the spirotrich ciliate, *Stylonychia mytilus* (Ciliophora, Hypotrichida). European Journal of Protistology, 51: 290–298.
- 5. Seema Makhija, Renu Gupta, **Ravi Toteja**, Jeeva Susan Abraham and Sripoorna Somasundaram (**2015**) Cadmium induced ultrastructral changes in the ciliate, *Stylonychia mytilus* (Ciliophora, Hypotrichida). Journal of Cell and Tissue Research, 15 (3): 5151–5157.
- 6. Sripoorna Somasundaram, Jeeva Susan Abraham, Renu Gupta, Seema Makhija and **Toteja R** (2015) Diverse freshwater spirotrich ciliate fauna from Okhla Bird Sanctuary, Delhi, India. Global Journal for Research Analysis, 4 (9): 37–41.

- 7. Jeeva Susan Abraham, Sripoorna Somasundaram, Shiv Jangra, Khushi Yadav, Simran Singh, Siddhant Zutshi, Bhupender Singh, Jyoti Dagar, Anit Kumar, Anusha Goyal, Muskaan Bhatnagar, Upadhaya M., Ashish Choudhary, **Ravi Toteja**, Renu Gupta, Geetu Gambhir, Seema Makhija (2016) Biodiversity and community structure of soil ciliates collected from three different sites of Delhi, India to assess soil quality. Protistology, 10 (2), 5.
- 8. Seema Makhija, Jeeva Susan Abraham, Sripoorna Somasundaram, **Ravi Toteja**, Renu Gupta (**2016**). Mapping the hidden diversity of free living fresh water ciliates from Delhi region, India. Protistology, 10 (2), 43.
- 9. Sripoorna Somasundaram, Jeeva Susan Abraham, **Ravi Toteja**, Renu Gupta, Seema Makhija (**2016**). Molecular defence mechanisms in spirotrich ciliates to prevent heavy metal toxicity. Protistology, 10 (2), 76.
- 10. Sripoorna Somasundaram, Jeeva Susan Abraham, **Ravi Toteja**, Seema Makhija, Renu Gupta (**2016**). Evaluation of acute toxicity of heavy metals and the activity of antioxidant enzymes in freshwater ciliates. Protistology, 10 (2), 77.
- 11. **Ravi Toteja**, Seema Makhija, S. Sripoorna, Jeeva Susan Abraham and Renu Gupta (2017) Influence of Copper and Cadmium Toxicity on the Activity of an Antioxidant Enzyme, Superoxide Dismutase in Freshwater Ciliates. Indian Journal of Experimental Biology, 55: 694–701.
- 12. Ashish Choudhary, Jeeva Susan Abraham, S. Sripoorna, Manu Sankar, Vikas Ahlawat, Renu Gupta, Seema Makhija, **Ravi Toteja** (2016) Evaluation of the cytotoxic effect of pesticide malathion on freshwater ciliate, *Tetmemena* sp. DU Journal of undergraduate research and innovation, 2 (1): 20–30.
- 13. Ilmas Naqvi, Renu Gupta, Seema Makhija, **Ravi Toteja**, Jeeva S Abraham, S. Sripoorna and Hameed A.El-Serehy (2016) Morphology and morphogenesis of a new oxytrichid ciliate, *Notohymena limus* n. sp. (Ciliophora, Oxytrichidae) from Delhi, India. Saudi Journal of Biological Sciences, 23 (6): 789-794.
- 14. Jeeva Susan Abraham, S. Sripoorna, Ashish Choudhary, **Ravi Toteja**, Renu Gupta, Seema Makhija and Alan Warren (**2017**) Assessment of Heavy Metal Toxicity in Four Species of Freshwater Ciliates (Spirotrichea; Ciliophora) from Delhi, India. Current Science, 113 (11): 2141–2150.
- 15. Renu Gupta, Jeeva Susan Abraham, Sripoorna Somasundaram, **Ravi Toteja**, Seema Makhija and Hamed A El-Serehy (**2017**) Taxonomic and Morphogenetic description of freshwater ciliate *Aponotohymena isoautralis* n. sp. (Ciliophora; Oxytrichidae) isolated from Sanjay Lake, Delhi, India. *Acta Protozoologica*, 56: 93-107.
- 16. Sripoorna Somasundaram, Jeeva Susan Abraham, Swati Maurya, Seema Makhija, Renu Gupta and **Ravi Toteja** (2018) Cellular and molecular basis of heavy metal-induced stress in ciliates. Current Science, 114: 1858–1865.
- 17. S. Sripoorna, Jeeva Susan Abraham, Swati Maurya, Hritik Kadian, Juhi Jaiswal, Seema Makhija, **Ravi Toteja** (2017) Ultraviolet B induced protection strategies in unicellular eukaryotic microbes *Blepharisma* sp. and *Notohymena* sp. (Protista). DU Journal of undergraduate research and innovation, 3:60–73.
- 18. Jeeva Susan Abraham, S. Sripoorna, Swati Maurya, Seema Makhija, Renu Gupta, **Ravi Toteja** (2019) Techniques and tools for species identification in ciliates: A review. *International Journal of Systematic and Evolutionary Microbiology*, 003176.
- 19. Jeeva Susan Abraham, Sripoorna Somasundaram, Shiv Jangra, Anit Kumar, Khushi Yadav, Simran Singh, Anusha Goyal, Swati Maurya, Geetu Gambhir, **Ravi Toteja**, Renu Gupta, Dileep K. Singh, Hamed A. El-Serehy, Fahad A. Al-Misned, Saleh A.

- Al-Farraj, Khaled A. Al-Rasheid, Saleh A. Maodaa and Seema Makhija (2019) Soil ciliates of the Indian Delhi Region: Their community characteristics with emphasis on their ecological implications as sensitive bio-indicators for soil quality. Saudi Journal of Biological Sciences, 26(6): 1305-1313.
- 20. Sripoorna Somasundaram, Jeeva Susan Abraham, Swati Maurya, **Ravi Toteja**, Renu Gupta and Seema Makhija (2019) Expression and molecular characterization of stress-responsive genes (*hsp70* and *Mn-sod*) and evaluation of antioxidant enzymes (CAT and GPx) in heavy metal exposed freshwater ciliate, *Tetmemena* sp. Molecular Biology Reports, 46: 4921-4931.
- 21. Komal Karma, Harpreet Kaur, Jeeva Susan Abraham, Sripoorna Somasundaram, Seema Makhija, **Ravi Toteja**, Alan Warren and Renu Gupta (**2020**). Symposium Report: International Symposium on Ciliate Biology, India Habitat Centre, New Delhi, India, 04–06 April 2018. Journal of Eukaryotic Microbiology, 67: 296-299.
- 22. Gupta, R., Abraham, J. S., Sripoorna, S., Maurya, S., **Toteja, R.**, Makhija, S., ... & El-Serehy, H. A. (2020). Description of a new species of *Tetmemena* (Ciliophora, Oxytrichidae) using classical and molecular markers. *Journal of King Saud University-Science*, 32(4), 2316-2328. <a href="https://doi.org/10.1016/j.jksus.2020.03.009">https://doi.org/10.1016/j.jksus.2020.03.009</a>
- 23. Abraham, J. S., Gupta, R., Somasundaram, S., Naqvi, I., Maurya, S., **Toteja, R.**, & Makhija, S. (2020). Faunistic study on the freshwater ciliates from Delhi, India. *bioRxiv*. https://doi.org/10.1101/2020.07.06.189001.
- 24. Maurya, S., Abraham, J. S., Somasundaram, S., **Toteja, R.**, Gupta, R., & Makhija, S. (2020). Indicators for assessment of soil quality: a mini-review. *Environmental Monitoring and Assessment*, 192(9), 1-22. <a href="https://doi.org/10.1007/s10661-020-08556-z">https://doi.org/10.1007/s10661-020-08556-z</a>.
- 25. Abraham, J. S., Somasundaram, S., Maurya, S., Gupta, R., Makhija, S., & **Toteja**, **R**. (2021). Characterization of *Euplotes lynni* nov. spec., *E. indica* nov. spec. and description of *E. aediculatus* and *E. woodruffi* (Ciliophora, Euplotidae) using an integrative approach. *European Journal of Protistology*, 79, 125779. https://doi.org/10.1016/j.ejop.2021.125779

# HOLOTYPE SUBMISSION OF NEW CILATE SPECIES TO ZOOLOGICAL SURVEY OF INDIA

- 1) Abraham J.S., Somasundaram S., **Toteja R**., Makhija S. and Gupta R. (2016). *Notohymena amicronuleata* sp. nov. Acc. No.: Pt.3220. Submitted in Zoological Survey of India, Kolkata.
- 2) Gupta, R., Makhija, S., **Toteja, R.,** Abraham, J. S. and Sripoorna, S. (2016) *Tetmemena sapraei* sp. nov. Acc. No.: Pt.3665. Submitted in Zoological Survey of India, Kolkata.
- 3) Abraham, J. S., Somasundaram, S., Maurya, S., **Toteja, R.,** Makhija, S. and Gupta, R. (2019). *Euplotes aediculatus* (Pt. 4641). Submitted in Zoological Survey of India, Kolkata.
- 4) Abraham, J. S., Somasundaram, S., Maurya, S., **Toteja, R.**, Makhija, S. and Gupta, R. (2019). *Euplotes woodruffi* (Pt. 4642). Submitted in Zoological Survey of India, Kolkata.
- 5) Abraham, J. S., Somasundaram, S., Maurya, S., Toteja, R., Makhija, S. and Gupta, R. (2019).

- Euplotes n. sp. SLS1 (Pt. 4643). Submitted in Zoological Survey of India, Kolkata.
- 6) Abraham, J. S., Somasundaram, S., Maurya, S., **Toteja, R.**, Makhija, S. and Gupta, R. (2019). *Euplotes* n. sp. OBS2 (Pt. 4644). Submitted in Zoological Survey of India, Kolkata.
- Abraham, J. S., Somasundaram, S., Maurya, S., **Toteja, R.**, Makhija, S. and Gupta, R. (2021). *Diaxonella multimarginata* n. sp. (Pt. 5045), *Gastrostyla indica* (Pt. 5046), *Uroleptus isogallina* n. sp. (Pt. 5047), *Anteholosticha foissneri* n. sp. (Pt. 5048), *Paraurostyla coronata* (Pt. 5049), *Aponotohymena australis* (Pt. 5050), *Sterkiella multicirrata* (Pt. 5051), *Gonostomum strenua* (Pt. 5052), *Pseudourostyla cristata* (Pt. 5053), *Pseudokeronopsis erythrina* (Pt. 5054), *Blepharisma sinosum* (Pt. 5055), *Laurentiella strenua* (Pt. 5056), *Oxytricha granulifera* (Pt. 5057), *Urostyla grandis* (Pt. 5058), *Paramecium multimicronuceatum* (Pt. 5059).

#### **Books:**

- 1. **Ravi Toteja** (2010) "Textbook of Biotechnology" Publisher, Ane Books Pvt Ltd. ISBN 9789380156804.
- 2. Renu Gupta, Seema Makhija and Ravi Toteja (2018). Cell Biology Practical Manual. Prestige Publishers.
- 3. Hardeep Kaur, Ravi Toteja, Seema Makhija (2021). *Text Book of Immunology*. IK Publishers. ISBN: 978-93-90620-30-2.

#### **BOOK CHAPTER:**

1. Jasmine Purushothaman, Bindu, L, Seema Makhija, **Ravi Toteja** and Renu Gupta (2017). Protozoa: Ciliophora (Ciliates). In K. Chandra, K.C. Gopi, D.V. Rao, K. Valarmathi and J.R.B. Alfred (Eds.), *Current Status of Freshwater Faunal Diversity in India* (pp 37-54). Zoological survey of India, Kolkata.

#### **E-CHAPTERS**

- 1. **Ravi Toteja** (2008) Introduction to Cell. (http:// nsdl.niscair.res.in/handle /123456789/480), National Science Digital Library created by CSIR organization, National Institute of Science and Communication and Information Resources.
- 2. **Ravi Toteja** (2008) Cell Cycle and its Regulation. http:// nsdl.niscair.res.in/handle /123456789/481), National Science Digital Library created by CSIR organization, National Institute of Science and Communication and Information Resources.
- 3. Developing e-content for the postgraduate students under UGC project of e-pathshala, Department of Zoology, University of Delhi.
- 4. Developing e-content for papers under NME-ICT Zoology:
- Ravi Toteja (2014) *Apoptosis* Uploaded on the site of Virtual Learning Environment, South Campus, University of Delhi.
- Ravi Toteja (2014) Signal Transduction Uploaded on the site of Virtual Learning Environment, South Campus, University of Delhi.(http://vle.du.ac.in/mod/resource/view.php?id=11946).

#### **Content Creation and Review**

- 1. Global Edition of Campbell Biology, Concepts and Connections, 9th Edition.
- 2. Global Edition of Campbell Biology: A Global Approach, 11th Edition, Urry et al.

#### Conference / Presentations / Workshops

#### **International Conference Presentations**

- 1. Ravi Toteja, Lathika Nair and V.K Bhasin (1996) "Detection of drug resistance in *P. falciparum* by Polymerase chain reaction" in International conference on Global Meet on Parasitic Diseases organized by Indian society of Parasitology in New Delhi
- 2. Ravi Toteja, Lathika Nair and V.K Bhasin (1997) "Allele specific PCR for diagnosis of drug resistance in *P. falciparum*: Optimization of PCR cycle" International conference on Global Meet on Parasitic Diseases organized by Indian society of Parasitology in Hyderabad
- 3. Ravi Toteja, Sarita kumar "Open Educational Resources: Success Stories" International Conference on Open Paradigms in Education held on 31 January- 2 February, 2011 at India International Centre, New Delhi.
- 4. S. Sripoorna, Jeeva Susan Abraham, Seema Makhija, Renu Gupta and Ravi Toteja (2013) "Ciliate microbial biodiversity at Sanjay Lake, Delhi" in Annual Conference of Association of Microbiologists of India (AMI-2013) held at Maharshi Dayanand University, Rohtak Haryana, November 17-20, 2013
- 5. Jeeva Susan Abraham, S. Sripoorna, Ravi Toteja, Renu Gupta and Seema Makhija (2013) "Bio-Monitoring heavy metal pollution in fresh water bodies by single celled eukaryotic microorganisms" in Annual Conference of Association of Microbiologists of India (AMI-2013) held at Maharshi Dayanand University, Rohtak Haryana, November 17-20, 2013.
- 6. Sarita Kumar, **Ravi Toteja** and Charu K Gupta (2014) Creation of E-museum as Open Educational Resource Repository of Organisms for Students of Biological Sciences. International conference "OCWC Global 2014" Ljubljana, Slovenia, April 23-25, 2014.
- 7. Seema Makhija, Renu Gupta and **Ravi Toteja** (2014) "Diverse freshwater ciliate Fauna from Okhla Bird Sanctuary, Delhi, India. 3rd IRCN-BC Workshop held at Royal Holloway, University of London, U.K.
- 8. Renu Gupta, Seema Makhija and **Ravi Toteja** (2014) Soil ciliate (Protozoa, Ciliophora) Diversity in and around Delhi, India. 3rd IRCN-BC Workshop held at Royal Holloway, University of London, U.K.
- 9. Jeeva Susan Abraham, Renu Gupta, S. Sripoorna, **Ravi Toteja** and Seema Makhija (2014) Morphology, Morphogenesis and Molecular Phylogeny of Notohymena sp. (Ciliophora; Oxytrichidae) isolated from Sanjay Lake, Delhi, India, 2nd Asian congress of Protistology and Ninth Asian Conference on Ciliate Biology organized by Kalyani University, Kalyani, India.
- 10. S. Sripoorna, Seema Makhija, Jeeva Susan Abraham, Renu Gupta and **Ravi Toteja** (2014) Inferring Phylogenetic Position of an Indian Isolate *Tetmemena* sp. (Ciliophora, Oxytrichidae) Using Morphological, Morphogenetic and Molecular Markers. 2nd Asian congress of Protistology and Ninth Asian Conference on Ciliate Biology organized by Kalyani University, Kalyani, India.
- 11. **Ravi Toteja**, Seema Makhija, S. Sripoorna, , Jeeva Susan Abraham and Renu Gupta and (2014) Influence of Copper and Cadmium Toxicity on the Activity of an Antioxidant Enzyme, Superoxide Dismutase in Freshwater Ciliates. 2nd Asian congress of Protistology and Ninth Asian Conference on Ciliate Biology organized by Kalyani University, Kalyani,

India.

- 12. Renu Gupta, Seema Makhija, **Ravi Toteja**, Jeeva Susan Abraham and S. Sripoorna (2014) Oxytrichid ciliate biodiversity from the river Yamuna, Delhi, India. 2nd Asian congress of Protistology and Ninth Asian Conference on Ciliate Biology organized by Kalyani University, Kalyani, India.
- 13. Jeeva Susan Abraham, S. Sripoorna, Renu Gupta, **Ravi Toteja** and Seema Makhija (2015). Phylogenetic relationships among the ciliates (class Spirotrichea) isolated from Indian Subcontinent with emphasis on the subclass Stichotrichia inferred from small subunit rRNA gene sequence. 4th IRCN-BC Workshop held at Qingdao, China.
- 14. S. Sripoorna, Jeeva Susan Abraham, Renu Gupta, **Ravi Toteja** and Seema Makhija (2015)Taxonomic evaluation of the genus *Tetmemena* sp. by morphological and multiple molecular markers to assess its phylogeny. 4th IRCN-BC Workshop held at Qingdao, China.
- 15. Jeeva Susan Abraham, S. Sripoorna, **Ravi Toteja**, Renu Gupta and Seema Makhija. A study on freshwater hypotrich ciliates using morphological and molecular markers: an evolutionary perspective. XL All India Cell Biology Conference and International Symposium on Functional Genomics and Epigenetics held at Jiwaji University, Gwalior, from November 17-19, 2016.
- 16. S. Sripoorna, Jeeva Susan Abraham, **Ravi Toteja**, Renu Gupta and Seema Makhija. Use of ciliates as bioindicators to assess heavy metal pollution in freshwater bodies. XL All India Cell Biology Conference and International Symposium on Functional Genomics and Epigenetics held at Jiwaji University, Gwalior from November 17-19, 2016.
- 17. Renu Gupta, Jeeva Susan Abraham, S. Sripoorna, Sheeba, Tanya Bhayana, Kirti Kajal, Prachi Dadhich, Megha Singh, Sadhika Thakur, Anjali Yadav, Seema Makhija and **Ravi Toteja**. Insights into the phylogeny of *Blepharisma* sp. using small subunit ribosomal rRNA gene sequences. XL All India Cell Biology Conference and International Symposium on Functional Genomics and Epigenetics held at Jiwaji University, Gwalior, from November 17-19, 2016.
- 18. Jeeva Susan Abraham, Sripoorna Somasundaram, Renu Gupta, **Ravi Toteja**, Hamed A El-Serehy, Seema Makhija. Morphology and molecular taxonomy of ciliates from freshwater bodies in Delhi, India. 15th International congress of protistology held at Prague, Czech Republic, from 30th July-4th August, 2017.
- 19. Sripoorna Somasundaram, Jeeva Susan Abraham, **Ravi Toteja**, Renu Gupta, Seema Makhija. Cellular and molecular mechanisms to assess heavy metal toxicity in the freshwater ciliate, *Euplotes aediculatus* from Delhi, India. 15th International congress of protistology held at Prague, Czech Republic, from 30th July-4th August, 2017.
- 20. **Ravi Toteja**, Jeeva Susan Abraham, Sripoorna Somasundaram, Geetu Gambhir, Dileep K Singh, Seema Makhija. Soil ciliate (Protozoa; Ciliophora) diversity in and around Delhi, India and its ecological implications. 15th International congress of protistology held at Prague, Czech Republic, from 30th July-4th August, 2017.
- 21. S. Sripoorna, Jeeva Susan Abraham, Swati Maurya, **Ravi Toteja**, Seema Makhija and Renu Gupta. Use of ciliates in biomonitoring heavy metal pollution. Indian Network for Soil Contamination Research International Conference, Department of Zoology, University of Delhi, Delhi from 26th-28th September, 2017.
- 22. Renu Gupta, Seema Makhija, Jeeva Susan Abraham, Sripoorna Somasundaram and **Ravi Toteja**. Soil ecosystem –an insight into ciliate diversity from Delhi. Indian Network for Soil Contamination Research International Conference, Department of Zoology, University of Delhi, Delhi from 26th-28th September, 2017.

- 23. Jeeva Susan Abraham, S. Sripoorna, Renu Gupta, **Ravi Toteja**, Swati Maurya, Geetu Gambhir, D. K. Singh and Seema Makhija. Physico-chemical and biological analysis of soil samples collected from different sites in and around Delhi, India. Indian Network for Soil Contamination Research International Conference, Department of Zoology, University of Delhi, Delhi from 26th-28th September, 2017.
- 24. Jeeva Susan Abraham, S. Sripoorna, Swati Maurya, **Ravi Toteja**, Seema Makhija and Renu Gupta. Phylogenetic study of three spirotrich ciliates using modern biological techniques: an integrated approach. International Symposium on Ciliate Biology (ISCB), University of Delhi from 4th-6th April (2018) at India Habitat Centre, New Delhi, Delhi, India.
- 25. S. Sripoorna, Jeeva Susan Abraham, Swati Maurya, **Ravi Toteja**, Renu Gupta and Seema Makhija. Molecular characterization of heat-shock protein in ciliates. International Symposium on Ciliate Biology (ISCB), University of Delhi from 4th-6th April (2018) at India Habitat Centre, New Delhi, Delhi, India.
- 26. Seema Makhija, Swati Maurya, Jeeva Susan Abraham, S. Sripoorna, **Ravi Toteja** and Renu Gupta and. Molecular characterization of heat-shock protein in ciliates. International Symposium on Ciliate Biology (ISCB), University of Delhi from 4th-6th April (2018) at India Habitat Centre, New Delhi, Delhi, India.
- 27. Jeeva Susan Abraham, Renu Gupta, S. Sripoorna, Swati Maurya, Shiv Jangra, Anit Kumar, **Ravi Toteja** and Seema Makhija. Biodiversity of soil ciliates from in and around Delhi, India. International Symposium on Ciliate Biology (ISCB), University of Delhi from 4th-6th April (2018) at India Habitat Centre, New Delhi, Delhi, India.
- 28. Renu Gupta, Jeeva Susan Abraham, S. Sripoorna, Sheeba, Tanya Bhayana, Kirti Kajal, Anjali Yadav, Bhawana Kumari, Seema Makhija and **Ravi Toteja**. Molecular phylogeny of *Blepharisma* sp. based on sequence analysis of 18S rDNA and ITS gene. International Symposium on Ciliate Biology (ISCB), University of Delhi from 4th-6th April (2018) at India Habitat Centre, New Delhi, Delhi, India.
- 29. HarshVardhan Sahu, Vanya Garg, Khushboo, S. Sripoorna, Jeeva Susan Abraham, Swati Maurya, Seema Makhija, **Ravi Toteja** and Renu Gupta. A study on the process of regeneration in ciliate, *Tetmemena* sp. International Symposium on Ciliate Biology (ISCB), University of Delhi from 4th-6th April (2018) at India Habitat Centre, New Delhi, Delhi, India.
- 30. S. Sripoorna, Jeeva Susan Abraham, Swati Maurya, Hritik Kadian, Juhi Jaiswal, Seema Makhija and **Ravi Toteja**. Ultraviolet B (UVB) induced changes in eukaryotic microbe, ciliates. International Symposium on Ciliate Biology (ISCB), University of Delhi from 4th-6th April (2018) at India Habitat Centre, New Delhi, Delhi, India.
- 31. Swati Maurya, Jeeva Susan Abraham, S. Sripoorna, Seema Makhija, Renu Gupta and **Ravi Toteja**. Role of Ciliates to monitor the efficacy of Sewage Treatment Plant: A Review. International Symposium on Ciliate Biology (ISCB), University of Delhi from 4th-6th April (2018) at India Habitat Centre, New Delhi, Delhi, India.
- 32. **Ravi Toteja**, Seema Makhija, S. Sripoorna, Jeeva Susan Abraham, Swati Maurya and Renu Gupta. Transcriptomic analysis of heavy metal induced changes in gene expression in freshwater ciliates. International Symposium on Ciliate Biology (ISCB), University of Delhi from 4th-6th April (2018) at India Habitat Centre, New Delhi, Delhi, India.
- 33. Renu Gupta, Jeeva Susan Abraham, S. Sripoorna, Swati Maurya, Ilmas Naqvi, **Ravi Toteja** and Seema Makhija. Faunistic study on the freshwater ciliates of Delhi, India. International Symposium on Ciliate Biology (ISCB), University of Delhi from 4th-6th April (2018) at India Habitat Centre, New Delhi, Delhi, India.
- 34. Seema Makhija, Ravi Toteja, S. Sripoorna, Jeeva Susan Abraham, Swati Maurya and Renu

- Gupta. An overview of progression of ciliate biology research at University of Delhi. International Symposium on Ciliate Biology (ISCB), University of Delhi from 4th-6th April (2018) at India Habitat Centre, New Delhi, Delhi, India.
- 35. Sripoorna Somasundaram, Jeeva Susan Abraham, Swati Maurya, **Ravi Toteja**, Seema Makhija, Renu Gupta. Genetic and molecular mechanisms to cope oxidative stress in freshwater ciliates. 5th Joint meeting of PSA/ISOP from 29th July to 2nd August, 2018 at University of British Columbia, Vancouver, Canada.
- 36. Jeeva Susan Abraham, Sripoorna Somasundaram, Swati Maurya, Seema Makhija, **Ravi Toteja**, Renu Gupta. Taxonomic description and molecular phylogeny of three species of genus *Euplotes*: First report from Delhi, India. 5th Joint meeting of PSA/ISOP from 29th July to 2nd August, 2018 at University of British Columbia, Vancouver, Canada.
- 37. Somasundaram, S., Abraham, J. S., Maurya, S., Gupta, R., Makhija, S. and **Toteja**, **R.**(2021). Silico Identification and Characterization of cadmium, copper metalloproteinsand cysteine-rich proteins involved in cell defense in the freshwater ciliate, In 61<sup>st</sup> International conference of AMI-INSCR, February 03-05, 2021.
- 38. Abraham, J. S., Somasundaram, S., Maurya, S., Sood, U., Gupta, V., Lal, R., Gupta, R., **Toteja, R.** and Makhija, S. (2021). A study on ciliate diversity of Delhi using traditional microscopic and modern molecular methods. In *61<sup>st</sup> International conference of AMI-INSCR*, February 03-05, 2021.
- 39. Maurya, S., Abraham, J. S., Somasundaram, S., Makhija, S., Gupta, R. and **Toteja, R.** (2021). A comparative study of the soil physico-chemical parameters and ciliate diversity from a Landfill and Human inhabitant site. *61<sup>st</sup> International conference of AMI-INSCR*, February 03-05, 2021.

#### NATIONAL CONFERENCE PAPERS

- 1. Suchi Garg, Ravi Toteja, Seema Makhija "Structural Biology: A tool for drug design" in National Symposium; Chemistry in Biology: The Future of Life Sciences, 12-13 Feb, 2010, New Delhi, India, organized by Acharya Narendra Dev College.
- Prateek Kumar, Kritika Shukla, Parveen Atrish, Jeeva Susan Abraham, Seema Makhija and Ravi Toteja (2013) Use of Bioluminescent Ciliate Sensors as an Alternative Method for Measuring Heavy Metals in Fresh Water Samples. National Conference, Redefining Science Teaching: Future of Education held at University of Delhi South Campus, March 7-9, 2013.
- 3. Monisha Khanna, **Ravi Toteja**, Vikrant Atri (2013) "Screening of soil actinomycetes for antimicrobial compounds" at National Conference on "Redefining Science teaching: Future of education" held at University of Delhi South Campus, March 7-9, 2013.
- 4. Ashish Choudhary, Manu Sankar, Vikas Ahlawat, Jeeva Susan Abraham, S. Sripoorna, Seema Makhija and **Ravi Toteja** (2015). A low cost microbiotest for detecting insecticides by exploring behavioural and ecotoxicological response of freshwater ciliates. Recent trends in Biology organized by Department of Zoology, Maitreyi College, University of Delhi, New Delhi, India.
- 5. Renu Gupta, Jeeva Susan Abraham, S. Sripoorna, Bhawana Kumari, Shivangani Lohani, Divya Ojha, Ranjeeta Bhujbal, Seema Makhija and **Ravi Toteja** (2015) Elucidation of phylogenetic status of *Blepharisma* sp. from Delhi, India: Congruence of classical and molecular markers. Recent trends in Biology organized by Department of Zoology, Maitreyi College, University of Delhi, New Delhi, India.
- 6. Shiv Jangra, Khushi, Simran, Sidhanth Zutshi, Bhupender Singh, Jyoti Dagar, Anit Kumar, Anusha Goyal, Muskan Bhatnagar, Meenu Upadhaya, Jeeva Susan Abraham, S. Sripoorna,

- Ashish Choudhary, **Ravi Toteja**, Seema Makhija, Geetu Gambhir and Renu Gupta (2016) A Study on physico-chemical analysis of soil samples collected from various sites in and around Delhi. National Symposium on Man-Made diseases: an urban menace organized by Department of Zoology, Maitreyi College, University of Delhi, New Delhi, India.
- 7. Shiv Jangra, Khushi, Simran, Sidhanth Zutshi, Bhupender Singh, Jyoti Dagar, Anit Kumar, Anusha Goyal, Muskan Bhatnagar, Meenu Upadhaya, Jeeva Susan Abraham, S. Sripoorna, Ashish Choudhary, **Ravi Toteja**, Seema Makhija, Geetu Gambhir and Renu Gupta (2016) Ciliate diversity as a cellular tool to assess soil quality. National Symposium on Man-Made diseases: an urban menace organized by Department of Zoology, Maitreyi College, University of Delhi, New Delhi, India.
- 8. Shiv Jangra, Khushi, Simran, Sidhanth Zutshi, Bhupender Singh, Jyoti Dagar, Anit Kumar, Anusha Goyal, Muskan Bhatnagar, Meenu Upadhaya, Jeeva Susan Abraham, S. Sripoorna, Ashish Choudhary, **Ravi Toteja**, Seema Makhija, Geetu Gambhir and Renu Gupta (2016) Community characteristics of soil ciliates collected from three different sites in Acharya Narendra Dev College, University of Delhi. Proceedings on second national symposium on Environment: Greener Future and Awareness, Department of Zoology, Deshbandhu college, University of Delhi, New Delhi, India, March 19, 2016.
- 9. Pranjal Sharma, Deepika Joshi, Swati Maurya, Jeeva Susan Abraham, S. Sripoorna, **Ravi Toteja**, Renu Gupta, Seema Makhija (2019) Ciliates as bioindicators of Leachate at Health: Future Prespective. Biotechnology in present era: Impact on human life and environment held at Maitreyi College, University of Delhi.
- 10. Ruchika Bhardwaj, Deepanshu Vats, Rajanshi Mishra, Naeem Ahmed, Shushank ,MustabinAhmed, Swati Maurya, S. Sripoorna, Jeeva Susan Abraham, **Ravi Toteja**, Renu Gupta, Seema Makhija (2019) Insight into the Genome of ciliate, *Colpoda* spto assess its role in environmental biomonitoring at Health: Future Prespective. Biotechnology in present era: Impact on human life and environment held at Maitreyi College, University of Delhi.

#### CONFERENCES/WORKSHOPS/SYMPOSIUM ATTENDED AND ORGANIZED

- 1. Member of the organizing committee for National symposium on "Biotechnology: Expanding Horizons" organized by Acharya Narendra Dev College and held at INSA auditorium in 2002.
- 2. 49. Coordinator of a ten days workshop "Understanding complexities of life from molecules to system: Concepts and tools" for undergraduate students of Biology held in the college from 12th to 23rd May, 2008.
- 3. Coordinator of four days **Biology Laboratory Course Workshop**, B.Sc. Programme LSIII, organized by Institute of Lifelong Learning, University of Delhi and CPURT (Centre for Undergraduate Research and Training) Acharya Narendra Dev College from 21-24 October, 2008.
- 4. Participated in 5 days "Wikied'09" Workshop, organized by Acharya Narendra Dev College and CEMCA from January 8-12, 2009.
- 5. Participated in 6 days **Easy Now Workshop on Multimedia Content Development,** organized by Acharya Narendra Dev College and CEMCA from 20th 25 April, 2009.
- 6. Participated in the workshop for **Preparation of online quizzes on Life sciences subjects**, organized by Institute of Life Long Learning (ILLL), University of Delhi in April 13th, 2009.
- 7. 54. Organizing secretary for the 4 days workshop on **Open Educational Resources and Easy Now** for college teachers and students, organized at Acharya Narendra Dev College

- from 12th May to 15th May, 2009.
- 8. Resource Person for the 3 days workshop on **Open Educational Resources** for school teachers, organized at Sri Ram School, Vasant Vihar from 16th May to 18th May, 2009.
- 9. Participated in 3 days workshop on DRUPAL for constructing and maintaining website, organized by Acharya Narendra Dev College January, 2010 organized by Acharya Narendra Dev College, University of Delhi at India International Centre, New Delhi.
- 10. Part of the Organizing Committee of 2-days National Symposium on "Chemistry in Biology: The Future of Life Sciences", Feb. 12-13, 2010; organized by Acharya Narendra Dev College, University of Delhi at India International Centre, New Delhi.
- 11. Rapporteur of the session on **Structural Biology** in National Symposium; Chemistry in Biology: The Future of Life Sciences, 12-13 Feb, 2010, New Delhi, India. Organized by Acharya Narendra Dev College, University of Delhi at India International Centre, New Delhi.
- 12. Facilitator of three day **OER** workshop on creating e content organized by CEMCA at Teerathankar Mahaveer University, UP on September 3-5, 2010.
- 13. Member of the organizing committee for International Conference on **Open Paradigms in Education** held on 31 January- 2 February, 2011 at India International Centre, New Delhi, Organized by Acharya Narendra Dev College.
- 14. Member of the organizing committee for organizing one day seminar on "**Teaching redefined: Open access to education**", Sponsored by INASP, UK, held at Acharya Narendra Dev College on November 1, 2011.
- 15. Member of the organizing committee for organizing two days workshop on **Hands on Training, Molecular Phylogenetics: Understanding Evolutionary Histories**, (Workshop for Students) on 15, 16 June 2011, organized in Acharya Narendra Dev College.
- 16. Facilitator of OER workshop organized by Mumbai University to "Create e contents on economics and soft skills" held at Mumbai University, Mumbai on October 16-19, 2011.
- 17. Facilitator of OER workshop organized by Mumbai University to "Create e contents on economics and soft skills" held at Acharya Narendra Dev College, Delhi on November 29, 30 and December 1,2, 2011.
- 18. Attended one day workshop on "Animal Welfare and Alternative Models" held at IGIB on July 1, 2012.
- 19. Attended two day Academic Congress "Enabling the Young: Rethinking Education" Organized by University of Delhi, held at University of Delhi on September 6-7, 2012.
- 20. Attended one day seminar on "Use of Animals in Education and Research" held at Department of Zoology, University of Delhi on October 20, 2012.
- 21. Facilitator in **OER** workshop organized by Apeejay Staya University, Haryana for creating E contents on November 22, 2012.
- 22. **Member of Organizing committee** of National Conference "**Redefining Teaching Science:** Future of Education" held at Conference Room, UDSC, March 7-9, 2013.
- 23. Participated in the National symposium on **Vector biology and vector management** (Innovation Project, DU) held at Deshbandhu College, University of Delhi, on June 21, 2013.
- 24. **Attended** re-launch of "Creative Commons India" held on November, 12, 2013 at India Islamic Centre, Lodhi Road, New Delhi.
- 25. Participated in the 54th Annual conference on "Frontier Discoveries and Innovations in Microbiology and its interdisciplinary relevance (FDMIR-2013)" of Association of Microbiologists of India, held at MDU, Rohtak Haryana, November 17-20, 2013.
- 26. Organizing member of one day workshop for Biology faculty and UG students, CUBE Delhi 2014, (Collaborative Undergraduate Biology education) Organized by Acharya Narendra

- Dev College in collaboration with Homi Bhabha Centre for Science education HBCSE, TIFR, February 7, 2014.
- 27. Member of the organizing committee of 9th Asian Congress on Ciliate Biology and 2nd Asian Congress of Protistology to be held at University of Kalyani, West Bengal (2014).
- 28. Attended Innovation Conclave-2016 organized at Acharya Narendra Dev College on October 25-26, 2016.
- 29. Convenor of two days teachers' workshop entitled "Science pedogogy: Laboratory learning to classroom teaching" from January 20-21, 2016 for P.G.Ts in Physics, Chemistry and Biology on January 21-22, 2016.
- 30. Joint secretary of the International Symposium on Ciliate Biology (ISCB) and as coordinator in the Workshop on 'Tools and Techniques Used in Ciliate Studies' held on 6th April 2018, at the India Habitat Centre, Delhi organized by Zoological Survey of India and ISCB 2018.
- 31. Coordinator of Education Conclave-Education deconstructed: Dialogue with experts, held at Acharya Narendra Dev College (2018).
- 32. Organized a workshop on Hands on Training of ELISA Technique on 13th February, 2019 at Acharya Narendra Dev College.
- 33. Patron of six day interdisciplinary workshop on Learning Science by Doing Science from 18th to 24<sup>th</sup> June, 2019 at Acharya Narendra Dev College, University of Delhi.
- 34. Patron of three day workshop on Learning Science in collaboration with National Bal Bhavan from 17th to 19th July, 2019 at Acharya Narendra Dev College, University of Delhi.
- 35. Organized a Biar Initiative: A School Outreach Program for Enrichment on 21st October, 2019 at government senior secondary school, Bani, Himachal Pradesh.
- 36. Organized a Bani School Innovation Camp IV (Basic IV), 2019 Dream School on 22nd October, 2019 at government senior secondary school, Bani, Himachal Pradesh.
- 37. Patron of workshop on Molecular Biology Techniques on 22nd November, 2019 at Acharya Narendra Dev College, University of Delhi.
- 38. Attended a Global Bio- India 2019 from 21st to 23rd November, 2019 at Aerocity, New Delhi.
- 39. Attended Five-day workshop on Empowering teachers: Current technology based educational contents creation and delivery (using open source, free software) under Internal Quality Assurance Cell at Acharya Narendra Dev College, University of Delhi from December 2-6, 2019.
- 40. Participated in ISW 2020 International Summit on Women in STEM "New Skylines" form 23rd to 24th January, 2020 at Indian Habitat Centre, Lodhi road, Delhi.
- 41. Patron of Two-day workshop on "Hands-on to computational biology for (meta)genomic analysis" held at Web Centre at Acharya Narendra Dev College, University of Delhi from April 4-5, 2019.
- 42. Patron of One-day Inter-disciplinary exhibit presentation entitled 'New frontiers in science' (under the aegis of DBT star college program) held at Acharya Narendra Dev College, University of Delhi on October 22, 2019.
- 43. Patron of One-day hands on workshop on 'Molecular Biology Techniques for the undergraduate students of G. D. Goenka University organized at Acharya Narendra Dev College, University of Delhi on November 22, 2019.
- 44. Patron of One-day workshop on 'Cell Culture Techniques' at Acharya Narendra Dev

- College, University of Delhi on February 19, 2020
- 45. Organized One-day Inter college workshop on 'Techniques in Molecular Biology' at Acharya Narendra Dev College, University of Delhi on Feb 25, 2020.
- 46. Patron of One day hands on workshop 'Learning Molecular Biology Techniques' conducted for B.Sc. (H) Zoology and B.Sc. Life Sciences at Acharya Narendra Dev College, University of Delhi on September 24, 2019.
- 47. Organized Webinar on 'The Growth of Linnean thought: Impact of common descent and current understanding' by Dr Himender Bharti on May 11, 2020.
- 48. Organized Webinar on 'Evolution as Darwin knew as a child' by Dr Mallikarjun Shakarad on May 22, 2020.
- 49. Patron of three days hands on workshop on "Advanced Bioinformatics on Data Mining" conducted for undergraduate students and Ph.D. students at Acharya Narendra Dev College, University of Delhi (Online) on March 1–3, 2021.
- 50. Organised 61<sup>st</sup> Annual Conference 'Microbial World: Recent Developments in Health, Agriculture and Environmental Sciences' being organised jointly by The Energy and resources Institute, University of Delhi and IARI under the aegis of Association of Microbiologists of India (AMI) and Indian Network for Soil Contamination and Research (INSCR) from February 03-05, 2021.
- 51. Patron of one-day seminar on "Career in Forensic Science" in the ANDC career counselling series on March 20, 2021.
- 52. Patron of one-day seminar on 'Studying in Europe-Interaction with seniors' in the ANDC career counselling series on March 14, 2021.
- 53. Patron of one-day seminar on 'Career after MBA- exploring the unexplored' in the ANDC career counselling series on March 7, 2021.
- 54. Patron of three day online hands-on workshop on 'A step-by step guide to Data mining from literature to pathways' from March 1-3, 2021.
- 55. Patron of Five day online National RBPT based hands-on workshop on Bioinformatics from January 9–13, 2021.
- 56. Patron of two week national workshop (online) on 'Tools and Techniques in Statistical Analysis' from April 06-09, 2021.
- 57. Organised one-month hands-on workshop on 'Ciliate culturing, staining and experimental techniques' for undergraduate students from March 04- April 06, 2021.

#### Research Projects (Major Grants/Research Collaboration)

- 1. A study on heavy metal induced stress response at cellular and molecular level in ciliates for the development of a potential biosensor". Sanctioned Twenty One Lakhs by Department of Science & Technology. Duration: 2012-2015
- 2. "Stress induced induction of metallothioneins (MTs) gene in ciliates and its use as biomarker to assess environmental pollution". Sanctioned Nine Lakhs by University Grants Commission. Sanctioned by Department of Science & Technology. Duration: Three years: 2012-2015

- 3. "Use of Bioluminescent Ciliate Sensors as an Alternative Method for Measuring Heavy Metals in Fresh Water Samples". Sanctioned One Lakh by Innovative Entrepreneurship Development Cell of Department of Science & Technology. Duration: One year: 2012-2013.
- 4. Exploring useful bacteriafrom soil" for undergraduate students funded by University of Delhi. Duration: One year: 2012-2013
- 5. A low cost microbiotest for detecting insecticides by exploring behavioral and ecotoxicological response of fresh water ciliates. Sanctioned One Lakh by Innovative Entrepreneurship Development Cell of Department of Science & Technology. Duration: One year: 2014-15
- 6. .Ciliate diversity as cellular tool to assess soil quality. Sanctioned Six lakhs by University of Delhi. Duration: One year: 2015-16
- 7. DNA barcoding for ciliate species identification of Delhi, India, Sanctioned Twenty One Lakhs by DST-SERB. Duration: Three Years: 2020-2023

#### **Awards and Distinctions**

- 1. Awarded **Meritorious Teachers'** award instituted by GNCT, Delhi in 2016.
- 2. Co-authored a paper awarded as the **Best Oral Presentation** for the research paper entitled "Inferring Phylogenetic Position of an Indian Isolate *Tetmemena* sp. (Ciliophora, Oxytrichidae) Using Morphological, Morphogenetic and Molecular Markers" at 2<sub>nd</sub> Asian congress of Protistology and Ninth Asian Conference on Ciliate Biology organized by Kalyani University, Kalyani, India (2014). Co-authored a paper awarded as the
- 3. **Best Poster Presentation** entitled "Oxytrichid ciliate biodiversity from the river Yamuna, Delhi, India" at 2nd Asian congress of Protistology and Ninth Asian Conference on Ciliate Biology organized by Kalyani University, Kalyani, India (2014).
- 4. Co-authored a paper awarded as the **Best Poster Presentation** entitled, "Phylogenetic study of three spirotrich ciliates using modern biological techniques: an integrated approach" at International Symposium on Ciliate Biology (ISCB) organized by Delhi University colleges, Delhi, India (2018).
- 5. Research Peace Awards 2019 by RULA AWARDS & IJRULA for excellence in, Soil ciliates of the Indian Delhi Region: Their community characteristics with emphasis on their ecological implications as sensitive bio-indicators for soil quality.
- 6. Member of Advisory Committee of National Level One Week Online Faculty Training Program on "Pedagogical Training for Effective Online Teaching and Learning" organized by DEEN DAYAL UPADHYAYA COLLEGE (University of Delhi) in association with K.T.H.M COLLEGE, NASHIK from August 3 to August 10, 2020.
- 7. Chaired a session in International Conference on Natural Products and Human Health-2020, Organized by Deshbandhu College, DU from February27-29, 2020.
- 8. Reviewed articles for the Current Genomics, International Food Research Journal and Drug, Cellular and Mlecular Life Sciences and Chemical Toxicology Journal.
- 9. Member of Advisory Committee of National Level One Week Online Faculty Training Program on "Pedagogical Training for Effective Online Teaching and Learning" organized by DEEN DAYAL UPADHYAYA COLLEGE (University of Delhi) in association with K.T.H.M COLLEGE, NASHIK from August 3 to August 10, 2020.
- 10. Invited to deliver a talk as Distinguished speaker in Alumni Talk Series-Reunion on

"Exploring single cell organisms-Ciliates" organized by Department of Zoology, Deshbandhu College on September 12, 2020.

#### **Association With Professional Bodies**

- 1. Life member of **Indian Society of Parasitology**.
- 2. Life member of Association of Teachers in Biological Sciences (ATBS).
- 3. Life member of Indian Network for Soil Contamination Research (INSCR)
- 4. Member of IRCN-BC (International Research Coordination Network-Biodiversity of Ciliates).

#### Other Activities

#### **Other Academic Achievements**

- 1. Qualified joint CSIR-UGC Examination (NET) in 1994.
- 2. Qualified Graduate Aptitude Test Examination (GATE) in 1994, conducted by Indian Institute of Technology.

# **Curriculum Development:**

- 1. Member of committee involved in restructuring the course contents of Immunology paper to be taught in B.Sc. Zoology (Hons); 2010.
- 2. Member of committee involved in restructuring the course contents of Cell and Molecular Biology paper to be taught in B.Sc. Zoology (Hons); 2010.
- 3. Member of committee involved in restructuring the course contents of Cell and Molecular Biology paper to be taught in B.Sc. Life Sciences; 2010.
- 4. Member of the committee constituted in 2007 for restructuring of Foundation and Life sciences Curriculum in University of Delhi.
- 5. Member of committee constituted in 2003 involved in restructuring the course contents of Chordata paper to be taught in IInd year B.Sc. (Gen).
- 6. Attended all the meetings of course revision for B.Sc. Zoology (Hons.) and B.Sc. (Gen.) group B held at Department of Zoology, University of Delhi in 2003-2005.
- 7. Member of committee involved in restructuring the course contents of Biochemistry and Immunology paper to be taught in IInd year B.Sc. Zoology (Hons) 2003-2005.

#### **Cultural/Extracurricular Activities**

- 1. As convenor of "Niche", Zoological society of the college, published "Probe", the third edition of the society magazine and organized a Zoological Fest 'Oikos' in which various Intercollege competitions like Science Quiz, Rangoli, Poster making etc. were held in 2006-07.
- 2. The society also organized a lecture on 'Role of ciliate in waste water management' by Prof Alan Warren, from the London Museum of Natural History, on 18 December 2006 for undergraduate students.

- 3. Organized an Educational tour to Simla and Kulu & Manali, Himachal Pradesh for B.Sc. (Hons.) Zoology students in 2007 for collection of various species of insects.
- 4. Organized Educational tours to Zoological Park, Biodiversity Park and Centre for Advanced Studiesin Zoology, University of Delhi for B.Sc. (Hons.) Zoology, B.Sc. Foundation, B.Sc. Life Sciences and Applied Life sciences students in 2006-08 to study *Ex-situ* conservation of animals, diversified flora and fauna, tissue culture techniques and methods of animal breeding.
- 5. Organized a lecture on "Silk Mark" by Central Silk Board, New Delhi for the benefit of students of Applied Life Sciences in 2008 educating them of the importance of "Silk Mark" in assuring the quality of silk fabrics and products.
- 6. As Convenor of the theatre society of the college, organized a play on Sau Mei Laga Dhaga... and Yeh Daag Daag Ujalla in 2011 and 2012 respectively by the students of the college at Sri Ram Centre, Mandi House, New Delhi.

Signature of Faculty Member

 You are also requested to also give your complete resume as a DOC and PDF file to be attached as a link on your faculty page.