

Curriculum Vitae

Name : Dr. Richa Agarwal
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Academic Record:

Qualified CSIR-UGC-NET (JRF)- 2006 (December 2006)- F. No. 10-2(5)/2006(ii)-E.U.II

| Examination | University/ Institute | Year | Remarks |
|--|------------------------------|-----------|------------------------------|
| B.Sc. (H) Microbiology | Univ. Of Delhi, New Delhi | 2002-2005 | Ist Division (68.6%) |
| Master of Biotechnology (M.Biotech) | AIIMS, New Delhi | 2005-2007 | Ist Rank (72.33%) |
| Ph.D. (Biotechnology) | ICGEB, New Delhi | 2007-2012 | Degree awarded in June, 2012 |
| Post Graduate Diploma in Environment and Sustainable Development | IGNOU, New Delhi | 2015 | Ist Division (63.11%) |

Teaching Experience:

Currently working as Assistant Professor (permanent faculty) at PGDAV College, University of Delhi since March 2016; **teaching Environmental Studies** to students of various undergraduate courses.

Worked as Assistant Professor (Ad-hoc) at PGDAV College, University of Delhi since August 2014, **teaching Environmental Studies** to students of various undergraduate courses.

Worked as Assistant Professor (Ad-hoc) in the Department of Microbiology, Ram Lal Anand College, University of Delhi from August 2012 to April 2013.

Worked as Assistant Professor (Ad-hoc) in the Department of Microbiology, Institute of Home Economics (IHE), University of Delhi from January 2014 to March 2014.

Contributions in Environment Conservation:

Participating in Asian Waterbird Census since 2016 organised by Wetland International.

Have worked extensively for restoration of Sanjay Vann, Mehrauli City Forest as a member of 'Working With Nature' volunteer organisation founded by Late AVM (Retd.) Vinod Rawat.

- Created awareness among students regarding the infestation of *Prosopis juliflora* and its ill effects on the native Aravalli vegetation, Soil quality and depletion of groundwater.
- Organised plantation drives at Sanjay Vann planting native Aravalli tree saplings.
- Presented a poster at Antardwani 2015 regarding restoration of Aravalli vegetation at Sanjay Vann.
- Organising Earth Day Celebration at Sanjay Vann in April, 2015, 2016.
- Restoration of Aravalli Biodiversity at Sultan Garhi Tomb, New Delhi in 2015.

Research Experience:

1. **August 2007- March 2012** – Worked as PhD student on the title “**Role of *Mycobacterium tuberculosis* secreted protein(s) in modulation of the host cell immune functions**” at Immunology Group at ICGB, New Delhi, India under the supervision of Dr. Pawan Sharma. The work involves understanding the mechanism by which secreted proteins (i.e. MPT70) of Mtb affect immune effector functions of the host cell. The findings showed that this protein plays a vital role in the production of pro-inflammatory cytokines and nitric oxide after close interaction with macrophage cell surface through modulation of MAP Kinase signalling cascade and may have a protective role against Mtb. Hence, the protein may also be groomed as a potential vaccine candidate for the treatment of tuberculosis.
2. **M.Sc Project Work** – (Feb 2006- Jan 2007) – One year Dissertation titled as “**Genotyping of microsatellites flanking *Plasmodium vivax* dihydrofolate reductase gene involved in pyrimethamine resistance**” in Department of Biotechnology at AIIMS, New Delhi under supervision of Prof. Y. D. Sharma. The work involves studying the prevalence and spread of *Plasmodium vivax* Malaria across various states of India.

Publication(s):

1. M.T. Alam, **Richa Agarwal** and Y.D. Sharma (2007). Extensive heterozygosity at four microsatellite loci flanking *Plasmodium vivax* dihydrofolate reductase gene. *Mol Biochem Parasitol.* **153**: 178-185.
2. Pavanish Kumar, **Richa Agarwal**, Imran Siddiqui, Hardeep Vora, Gobardhan Das, Pawan Sharma (2012). ESAT6 differentially inhibits IFN γ - inducible Class II transactivator isoforms in both TLR2-dependent and -independent manner. *Immunol Cell Biol.* 90(4): 411-420.

Membership of learned bodies and societies:

- **Founder member and Co-convenor of Geo-crusaders, the PGDAV Environmental Society.**
- Faculty Advisor of ENACTUS-PGDAV team for the Project KoraKagaz, Nistaran and Sugandh.
- Life member of Indian Immunology Society.

Academic achievements and Awards:

- 1st prize in scientific oral presentation at National Symposium, “New Biotechnology Tools for the Diagnosis of Tuberculosis”, on World TB Day at NBE Institute on 24th March, 2011 for presenting the abstract, “*Mycobacterium tuberculosis* MPT 70 stimulates protective immune response in macrophage.”
- Aailed CSIR-NET (UGC-SRF) (2009-12)
- Qualified and aailed CSIR-NET (UGC-JRF) in 2007
- Qualified DBT JRF-2007
- Qualified GATE in 2007
- Aailed scholarship from DBT for M.Biotech. program (2005-2007)

I hereby give my consent to work as Co- Director of the project.



Dr. Richa Agarwal
(Assistant Professor)
(Department of Environmental Studies)
(PGDAV College)
(University of Delhi)