



### **Dr. Vandana Ghormade**

Scientist D

Agharkar Research Institute, Pune

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#### **Research Area**

- Nanoscience for protein, drug and siRNA delivery. Nanotechnologies for pathogen detection and biosensors.
  - The priority research area includes nanotechnology for applications such as drug, protein, gene delivery; molecular imaging; biomarkers and bio-sensors. Target-specific drug therapy and methods for early diagnosis of pathologies are the other research areas where nanotechnology would play a vital role.
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#### **Education & Scientific Career**

- 1996-2000 PhD, Biotechnology, University of Pune
  - 1991 B.Ed, University of Pune
  - 1989 M.Sc, Botany, University of Pune (Gold Medal)
  - 1987 B.Sc (Hons), Botany, Delhi University
  - 2007 onwards Scientist, Centre for Nanobioscience, Agharkar Research Institute, Pune
  - 2005-07 Postdoctoral Fellow, Agroscope Reckenholz-Tänikon Research Station ART, Zürich, Switzerland
  - 2001-05 Research Associate, CSIR, National Chemical Laboratory. Pune
  - 2001-05 Research Associate, CSIR, National Chemical Laboratory. Pune
  - 1991-1993 Lecturer, Ramnarain Ruia College, Mumbai.
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#### **Awards**

- Award: Elected as Fellow of Maharashtra Academy of Sciences in 2015
- 2005 Guman Devi Verma Best Woman Scientist (Indian Society of Mycology and Plant Pathology)
- 2001 CSIR-Research Associateship

- 2001 Best Speaker, National conference in fungal diversity and biotechnology, K.V. Pendharkar College, Mumbai.
- 2000 Best Speaker, National Symposium on Basic and Applied Aspects of Plant and Microbial Technology, Modern College, Pune
- 1998 Prize second, Golden Jubilee Research Students Seminar University of Pune
- 1996 CSIR-Research Fellowship
- 1989 Gold Medal, M.Sc Botany, University of Pune
- 1989 Late Milind Gandhi Scholarship, University of Pune

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### Publications (2011 Onwards)

1. VM Kulkarni, D Bodas, D Dhoble, V Ghormade, KM Paknikar. (2016). Radio-frequency triggered heating and drug release using doxorubicin-loaded LSMO nanoparticles for bimodal treatment of breast cancer. *Colloids and Surfaces B: Biointerfaces* 145:878-890.
2. V Ghormade, H Gholap, S Kale, V Kulkarni, S Bhat, K Paknikar. (2015) Fluorescent cadmium telluride quantum dots embedded chitosan nano particles: a stable, biocompatible preparation for bio-imaging. *Journal of Biomaterials Science, Polymer Edition*, 26: 42-56.
3. Vivek Kamat, Ila Marathe, Vandana Ghormade, Dhananjay Bodas, Kishore Paknikar (2015) Synthesis of monodisperse chitosan nanoparticles and in situ drug loading using active microreactor. *ACS Appl Mater Interfaces* 7:22839-47 (IF 6.7)
4. V. Ghormade. RNAi in world of insects. In: *Biotechnology across the Borders (CSIR-NCL, CONACYT-Mexico) 2013*, pp155-170
5. V Ghormade, MV Deshpande and KM Paknikar. (2011) Perspectives for nano-biotechnology in plant protection and nutrition. *Biotechnol Adv* 29:792-803 (IF: 7.6)
6. CV Joshi, V Ghormade, P Kunde, P Kulkarni, H Mamgain, S Bhat, KM Paknikar, MV Deshpande. (2010) Flocculation of dimorphic yeast *Benjaminiella poitrasii* is altered by modulation of NAD-glutamate dehydrogenase. *Biores Technol* 101: 1393-1395 (IF: 4.45)
7. P Chavan, S Mane, G Kulkarni, S Shaikh, V Ghormade, DP Nerkar, Y Shouche, MV Deshpande. (2009) Natural yeast flora of different varieties of grapes used for wine making in India. *Food Microbiol.* 26:801-808 (IF: 2.8)
8. J Enkerli, V Ghormade, C Oulevey, F Widmer (2009). *Metarhizium anisopliae* chitinase PCR-RFLP. *J Invertebr Pathol* 102:185-188 (IF: 1.463)
9. N Doiphode, V Ghormade, MV Deshpande (2009). Chitosan production using a dimorphic zygomycetous fungus *Benjaminiella poitrasii*: role of chitin deacetylase for increased deacetylation. *Asian Chitin Journal* 5: 19-26.
10. S Kulkarni, V Ghormade, G Kulkarni, M Kapoor, S Chavan, S Patil, Y Shouche, MV Deshpande. Comparison of *Metarhizium* isolates for biocontrol of *Helicoverpa armigera* (Lepidoptera: Noctuidae) in Chickpea. *Biocontrol Sci Technol* 18: 809-828. (IF: 1.087)