

## **Dr. Uttara V. Oak**

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### **Experience Summary:**

- 10 years of Post graduate and undergraduate level teaching along with guiding student projects related to antimicrobial drug resistance, biofilm inhibition, textile wastewater treatment, use of PGPR in crop stress management.
- 8 years industrial research experience and 10 years teaching experience in Microbiology.
- Ph.D. in Microbiology - topic entitled "Studies on Degradation of Triphenyl Methane and Azo Textile Dyes by Halophilic and Alkaliphilic Bacteria".
- Isolated a novel alkaliphilic bacterium degrading industrially used azo dye.
- Involved in antimicrobial drug discovery from natural products from actinomycetes and fungi at research centre of a multinational company. The work comprised of isolation, screening of microbes and evaluating antimicrobial potential and partial purification of active compound.
- Antimicrobial Drug with novel chemical structure patented.

### **Education:**

**January 2018**

**Ph. D. in Microbiology** from Dept. of Microbiology, Abasaheb Garware College, Savitribai Phule Pune University, **Pune**.

**April 2002**

**B.Ed.** from K.J. Somaiya Comprehensive College of Research and Education, **Mumbai**.

**May 1992**

**M.Sc. (Microbiology)** from University of **Mumbai**.

**May 1990**

**B.Sc. (Microbiology)** from University of **Mumbai**.

## **Teaching experience:**

**December 2007- April 2012 and July 2017 – Till date**

**Dept. of Biotechnology, PE Society's Modern College, Ganeshkhind, Pune.**

Taught theory and practical courses in Bacteriology and Virology, Immunology, Environmental Biotechnology, Fermentation Technology and Bioprocess Engineering and Fungal Biotechnology at post graduate level.

Taught theory and practical courses in Microbiology, Immunology, Microbial Biotechnology and Large Scale Manufacturing Processes at undergraduate level.

**June 2006-April 2007**

Taught Biology in the Junior college wing at H.V. Desai College, Pune

**June 2004- April 2005**

Taught Biology at St. Rock's Jr. College, Mumbai.

## **Industrial experience:**

**November 1993- June 2001**

Worked at Microbiology Dept. (Natural Products), Quest Institute of Life Sciences, Nicholas Piramal Ind. Ltd. Mumbai (Formerly Hoechst Research centre, Mumbai)

## **Other Achievements:**

### **Patents:**

- **US 20020183267 A1 and EP 1129208 A1 (text from WO2000028064A1)** - Vancoresmycin, a process for its production and its use as a pharmaceutical

### **Publications:**

- Khare T, **Oak U**, Shriram V, et al (2019) Biologically synthesized nanomaterials and their antimicrobial potentials. In: Comprehensive Analytical Chemistry. Elsevier B.V., pp 263–289
- **Oak U**, Srivastav A, Kumar V (2019) Perspectives of Plant Growth-Promoting Rhizobacteria in Conferring Salinity Tolerance in Crops. In: Microbial Interventions in Agriculture and Environment. Springer Singapore, pp 299–313
- **Uttara Oak**, Vikas Ghattargi, Shrikant Pawar, Bhalchandra Bhole, 2016. Degradation of Drimarene Red, a reactive textile dye by an extremophilic *Bacillus* sp. isolated from fresh water. Int. J. Appl. Pure Sci. Agric. 2, 105–113.
- **Uttara V Oak**, B. D. Bhole, 2014. Decolourization of Congo Red by *Pseudomonas stutzeri* SL6, in: Environment Observer. Presented at the

International Conference on Environmental Conservation by Adopting New Technologies, ENVIRONMENT OBSERVER, P.E. Society's Modern College of Arts, Science and Commerce, Shivaji Nagar, Pune -5, Maharashtra, p. 64-68.  
**(2<sup>nd</sup> Prize)**

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