Dr. Utkarsha Manoj Lekhak (Dr. Utkarsha U. Shedbalkar)

M.Sc., Ph.D.

utkarsha.shedbalkar@gmail.com

Educational qualifications :

Name of the degree	**Board/University**	**Year of Passing**	**Grade/class**
Ph. D. Biochemistry	Shivaji University, Kolhapur. Maharashtra	2011	--
M.Sc. Biochemistry	Shivaji University, Kolhapur. Maharashtra	2006	First Class
B. Sc. Microbiology	Shivaji University, Kolhapur. Maharashtra	2001	First class with distinction

Title of the Ph. D. thesis : *Penicillium ochrochloron*: For biodegradation of textile dyes.

Teaching and research experience:

Designation	**Department**	**Institute**	**Time period**
Assistant Professor	Biochemistry	The Institute of Science 15, Madame Cama road Mumbai-400032	From 7th August 2015 till todate
UGC-DSK-PDF	Microbiology	Savitribai Phule Pune University, Ganeshkhind, Pune	From 22nd February 2012 to 21st February 2015
CSIR-SRF	Biochemistry	Shivaji University, Kolhapur-416004	From 2nd May 2009 to 31 st March 2011.
lecturer (contract basis)	Biotechnology	Shivaji University, Kolhapur- 416004	From 9th June 2008 to 30th April 2009
lecturer (contract basis)	Biotechnology	Shivaji University, Kolhapur- 416004	From 13th july 2007 to 30th April 2008

Honours/ Awards:

1. Dr. D. S. Kothari Post Doctoral Fellowship awarded by University Grants Commission (UGC), New Delhi, India. (February 2012 to February 2015)
2. Senior Research Fellowship (SRF) awarded by Council of Scientific and Industrial Research (CSIR); New Delhi,

(b) Research Area/Research Interest : Biochemistry, Environmental Biotechnology, Nanobiotechnology

(c) Publications year wise

2018

1. Richa Singh, Jeet Vora, Shradhda B Nadhe, Sweety A Wadhwani, **Utkarsha U Shedbalkar,** Balu A Chopade (2018) Antibacterial activities of Bacteriagenic silver nanoparticles against nosocomial *Acinetobacter baumanni*.
Journal of Nanoscience and Nanotechnology. 18: 3806-3815. (Impact factor: 1.483)

2. Sweety A Wadhwani, **Utkarsha U Shedbalkar**, Shradhda B Nadhe, Richa Singh, Balu A Chopade (2018) Decolorization of textile dyes by combination of gold nanocatalysts obtained by *Acinetobacter* sp. SW30 and $NaBH_4$.
Environmental Technology and Innovation. 9:186-197.

3. Sweety A. A Wadhwani, **Utkarsha U Shedbalkar**, Richa Singh, Balu A Chopade (2018) Biosynthesis of gold and selenium nanoparticles by purified protein from *Acinetobacter* sp. SW30.
Enzyme and microbial technology. 111: 81-86. (Impact factor: 2.287)

2017

1. Richa Singh, **Utkarsha U Shedbalkar**, Shradhda B Nadhe, Sweety A Wadhwani, Balu A Chopade (2017) Lignin peroxidase mediated silver nanoparticle synthesis by Acinetobacter sp.
AMB express 7:226

2. Sweety A Wadhwani, Mahadeo Gorain, Pinaki Banerjee, **Utkarsha U Shedbalkar,** Richa Singh, Gopal C Kundu, Balu A Chopade (2017) Green synthesis of selenium nanoparticles using *Acinetobacter* sp. SW30: optimization, characterization and its anticancer activity in breast cancer cells.
International Journal of Nanomedicine. 12: 6841–6855. (Impact factor: 4.383)

2016

1. Richa Singh, Shradhda Nadhe, Sweety A. Wadhwani, **Utkarsha U. Shedbalkar**, Balu A. Chopade (2016) Nanoparticles for control of biofilms of *Acinetobacter* sp.
Materials. 383: 383; doi:10.3390/ma9050383. (Impact factor: 2.654)

2. Sweety Wadhawani, **Utkarsha U Shedbalkar**, Richa Singh, Priya Vashisth, Vikas Pruthi, Balu A. Chopade (2016) Kinetics of Synthesis of Gold Nanoparticles by *Acinetobacter* sp. SW30 Isolated from Environment.
Indian Journal of Microbiology. 56: 439-444. (Impact factor: 0.988)

3. Richa Singh, Laxman U. Navale, Manisha Arkile, Sweety A. Wadhwani, **Utkarsha U. Shedbalkar**, Snehal B. Chopade, Dhiman Sarkar and Balu A. Chopade (2016)

Phytogenic silver, gold and bimetallic nanoparticles as novel antitubercular agents. International Journal of Nanomedicine. 11:1889–1897 (Impact factor: 4.383)

4. Sweety Wadhawani, **Utkarsha U Shedbalkar**, Richa Singh, Balu A. Chopade (2016) Biogenic Selenium Nanoparticles : current status and future prospects.
Applied Microbiology and Biotechnology. 100: 2555-2566 (Impact factor: 3.420)

5. Sayali S. Patil, **Utkarsha U. Shedbalkar**, Adam Truskewycz, Balu A. Chopade, Andrew S. Ball (2016) Nanoparticles for environmental clean-up: A review of potential risks and emerging solutions.
Environmental Technology and Innovation. 5 : 10-21.

2015

1. Richa Singh, Laxman U. Navale, Manisha Arkile, **Utkarsha U. Shedbalkar**, Sweety A. Wadhwani, Dhiman Sarkar and Balu A. Chopade (2015) Chemical and Biological metal nanoparticles as antimycobacterial agents: A comparative study.
International Journal of antimicrobial agents. 46 : 182-183. (Impact Factor: 4.307)

2.Richa Singh, **Utkarsha U. Shedbalkar**, Sweety A. Wadhwani, Balu A. Chopade (2015) Bacteriagenic silver nanoparticles: synthesis, mechanism and applications.
Applied Microbiology and Biotechnology. 99 : 4579-4593. (Impact factor: 3.420)

2014

1. Sharvari V. Gaidhani, Richa K. Yeshvekar, **Utkarsha U. Shedbalkar**, Jayesh H. Bellare and Balu A. Chopade (2014) Bio-reduction of hexachloroplatinic acid to platinum nanoparticles employing *Acinetobacter calcoaceticus*.
Process Biochemistry. 49: 2313-2319. (Impact factor: 2.497)

2. Sweety A. Wadhwani, **Utkarsha U. Shedbalkar**, Richa Singh, Meena S. Karve, Balu A. Chopade (2014) Novel Polyhedral gold nanoparticles: Green synthesis, characterization and optimization by environmental isolate of *Acinetobacter* sp.SW30.
World Journal of Microbiology and Biotechnology. 30: 2723-2731 (Impact factor : 1.658)

3.**Utkarsha U. Shedbalkar**, Richa Singh, Sweety A. Wadhwani, Sharvari V. Gaidhani, Balu A. Chopade. (2014) Microbial synthesis of gold nanoparticles: Current status and future prospects,
Advances in Colloid and Interface Science (2014), 409: 40-48 (Impact factor : 7.776)

2011

1. **Utkarsha Shedbalkar** and Jyoti P. Jadhav. (2011) Detoxification of malachite green and textile industrial effluent by *Penicillium ochrochloron*.
Biotechnology and Bioprocess Engineering. 16: 196-204. (Impact factor: 1.278)

2.Vinayak S. Adki, **Utkarsha U. Shedbalkar**, Umesh B. Jagtap, Jyoti P. Jadhav and Vishwas A. Bapat. (2011) Phytoremediation of a carcinogenic compound (Troysan S89), a preservative used in paint industries, by *Blumea malcolmii* Hook cell cultures.
Journal of Hazardous Materials. 191: 150-157. (Impact factor: 6.065)

3. Dayanand C. Kalyani, Swapnil S Phugare, **Utkarsha U Shedbalkar**, Jyoti P Jadhav. (2011) Purification and characterization of a bacterial peroxidase from the isolated strain *Pseudomonas* sp. SUK1 and its application for textile dye decolorization. Annals of Microbiology. 61: 483-491. (Impact factor: 1.122)

2010

1.**Utkarsha U Shedbalkar**, Vinayak S Adki, Jyoti P Jadhav and Vishwas A Bapat. (2010) *Opuntia* and other Cacti: Applications and biotechnological insights.
Tropical Plant Biology. 3: 136-150. (Impact factor: 1.4)

2008

1. **Utkarsha Shedbalkar**, Rhishikesh Dhanve and Jyoti Jadhav. (2008) Biodegradation of triphenylmethane dye cotton blue by *Penicillium ochrochloron* MTCC517.
Journal of Hazardous Materials.157: 472-479. (Impact factor: 6.065)

2.Rhishikesh S. Dhanve, **Utkarsha U. Shedbalkar** and Jyoti P. Jadhav (2008) Biodegradation of diazoreactive dye Navy blue HE2R (Reactive blue 172) by an isolated *Exiguobacterium* sp. RD3.
Biotechnology and Bioprocess Engineering. 13: 61-68. (Impact factor: 1.278)

3.Pratibha S. Patil, **Utkarsha U. Shedbalkar**, Dayanand C. Kalyani and Jyoti P. Jadhav (2008) Biodegradation of Reactive Blue 59 by isolated bacterial consortium PMB11.
Journal of Industrial Microbiology and Biotechnology. 35: 1181-1190. (Impact factor: 2.810)

Genbank sequences submitted

16s r DNA gene sequences have been submitted to Genbank (Accession numbers: KF031523, KF031524, KF031525, KF031526, KF031527, KF031528, KF031529, KF031530, KF031531, KF421446).

Indian Patent (Applied)

Wadhwani S, **Shedbalkar U**, Singh R, Chopade B (2013) An improved method for synthesis of novel polyhedral gold nanoparticles using *Acinetobacter* sp. **Application number:** 3450/MUM/2013.

(d) Invited/Conference Talks : Nil

(e) Paper Presentation in National/International Conferences/Symposia

Conferences/workshops/ symposia attended:

1. Three days workshop on "Scientific/Research Paper Writing" at Central Institute of Fisheries Education (C. I. F. E.), Mumbai; organized by National Academy of Sciences (NASI), India on 8th-10th June 2012.

2. One day intensive training on "Particle Size Analysis & Colloidal Stability using DLS: Nano to Micro" organized by Venture Centre, NCL, Pune on 18th August, 2012.
3. Second International conference on Nanotechnology "Innovative, material, processes, products and applications organized by Bharati Vidyapeeth University, Pune on 18th and 19th October, 2012.

4. Half day Work shop on grant writing, organized by Venture Centre, NCL, Pune on 19th January, 2013.

5. DST sponsored conference on Bioengineering Sciences : present status and perspectives organized by Department of Applied Sciences, College of Engineering Pune on 15th and 16th March, 2013.

6. Advanced School in Biomedical Nanotechnology organized by Sastra University, Thanjavur, Tamilnadu from 25th - 29th March 2013.

7. Winter School 2013 in Nanotechnology, organized by Jawaharlal Nehru Centre for Advanced and Scientific Research (JNCASR), Bangalore from 2nd to 6th December, 2013.

Published contributions to academic conferences

- **Shedbalkar U.U.**, Dhanve R. S. and Jadhav J. P. (2006) Biodegradation of textile dyes by *Penicillium ochrochloron* MTCC 517. Presented at 3rd Convention of BRSI and International conference on "Exploring horizons in Biotechnology: A global venture" held at Sardar Patel University, Vallabh Vidyanagar, November 2-4, 2006.

- Dhanve R. S., **Shedbalkar U. U.** and **Jadhav J. P.** (2006) Decolorization of Diazo reactive dye Navy Blue HE2R by an isolated bacterium SUK-6. Presented at "2nd Global sustainable Biotech congress" held at R.T.M. Nagpur University, Nagpur. December 18-21, 2006.

- **Shedbalkar, U.U.** and Jadhav, J.P. (2007) Fungi as efficient microbial inocula for textile dyes degradation. Presented at National symposium on recent trends in life sciences with special reference to Environmental biotechnology and Biodiversity held at Kusumtai Rajarambapu Patil Kanya Mahavidyalaya, Islampur, Dist. Sangli., February 10-12, 2007

- Dhanve R., **Shedbalkar U.**, Kalyani D. and Jadhav J. (2007) Biodegradation of Reactive yellow 84A dye using an isolated *Exiguobacterium* sp. RD3 presented at National Conference on Emerging Trends in Biotechnology for Modern Era, College of Computer Science and Information Technology, Latur, India. September 29-30, 2007.

- Patil P., **Shedbalkar U.**, Phugare S. and Jadhav J. (2007) Consortial biodegradation of Reactive Blue 59 presented at International Conference on New Horizons in Biotechnology (NHBT-2007) National Institute for Interdisciplinary Science & Technology (NIIST) Trivandrum - 695019, India. 26-29 November, 2007.

- Surwase S., **Shedbalkar U.**, Patil P., Phugare S. and Jadhav J. (2008) A novel approach for the melanin production by bacterial isolates presented at 3rd International Congress on Bioprocesses in Food Industries and 5th Convention of the the Biotech research Society of India at Osmania University, Hyderabad, India 6-8 Nov 2008.

- Gurav R .G., **Shedbalkar U. U.**, Patil A. V., Jadhav J. P. and Bapat V. A. (2009) Biodegradation of keratin containing wastes using bacterial keratinase. Presented at 50th Annual conference Association of Microbiologist of India (AMI 2009) NCL, Pune. December 15-18, 2009.

- Patil P. S., Jadhav S. B., **Shedbalkar U.U.**, Kalyani D.C. and Jadhav J. P. (2009) Reactive Red 120 degradation potentials of individual and mixed microbial culture presented at 50th Annual conference Association of Microbiologist of India (AMI 2009) NCL, Pune. December 15-18, 2009.

(f) Projects (Completed; Ongoing): Nil

(g) Research Guidance (Ph.D. & Msc by Research) : Nil

(h) Activities: Nil

(i) Topics taught : Advanced Instrumentation, Metabolism, Advanced metabolism, Nutrition, Clinical Biochemistry