

Dr. Manisha Deshpande



Designation: Adjunct Faculty

Dr. D.Y. Patil Biotechnology & Bioinformatics Institute,
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EDUCATIONAL QUALIFICATIONS:

Sr. No.	Examination / Degree	Year of passing	Principal / Special subject/s	College / Institute	Board / University
1	Bachelor of Science.	1989	Microbiology	Abasaheb Garware College, Pune	University of Pune
2	Master of Science	1991	Biotechnology	Jawaharlal Nehru University, New Delhi.	Jawaharlal Nehru University, New Delhi.
3	Joint CSIR-UGC National Level Test for JRF & Lectureship.	1993	Life Sciences	N/A	University Grants Commission
4	Doctor of Philosophy, Biotechnology.	1999	“ Expression and characterization of a novel 369 bp open reading frame from <i>D.melanogaster</i> ”	University of Pune.	University of Pune.

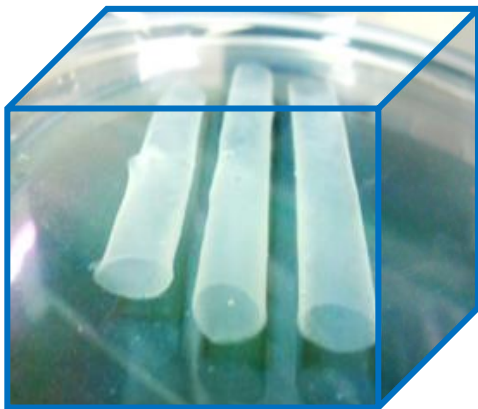
POSTDOCTORAL TRAINING:

1.	Research Associate.	February 1999	June 2001	National Centre for Cell Science, Pune.
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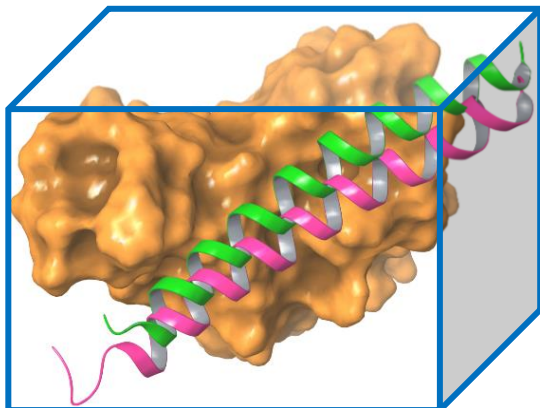
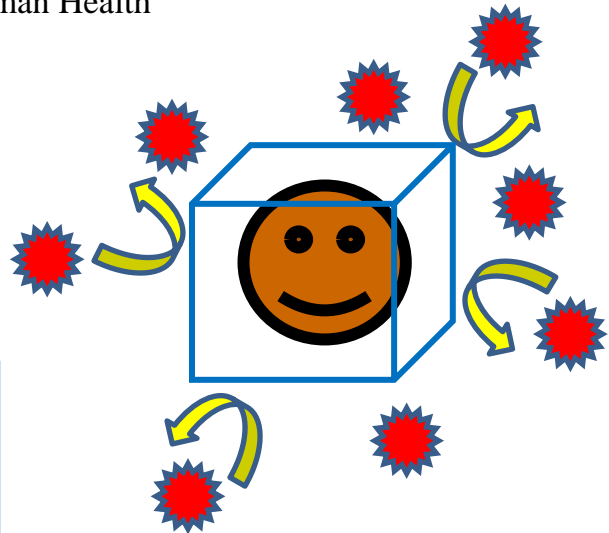
EMPLOYMENT EXPERIENCE:

1.	Assistant Professor	August 2014	March 2020	Dr. DY Patil Biotechnology & Bioinformatics Institute, Pune.
2.	Senior Principal Scientist.	July 2001	August 2011	Reliance Life Sciences Pvt. Ltd., Navi Mumbai.
3.	Junior Research Fellow	April 1993	June 1994	Department of Zoology, University of Pune.

FIELD OF SPECIALIZATION: Biological Engineering



- Tissue Engineering
- Artificial Organs
- Animal Tissue Culture
- Human Health



RESEARCH PUBLICATIONS (Publications 1 to 9 are SCI/Web of Science indexed)

1. *Deshpande M, Kuchroo P. (2010) A novel dermal tissue construct: development and *in vitro* characterization. *Biotechnol. Prog.* 26:1424-1430.
2. *Deshpande M, Tipnis S, Shetty P, Ghosh D, Senmajumdar A, Viswanathan C. (2010) Immunologic properties of human dermal fibroblasts. *Hum. Immunol.* 71:1089-1098.
3. *Deshpande M. (2008) Three-dimensional organization of dermal fibroblasts by macromass culture. *Biotechnol. Appl. Biochem.* 49:65-72.
4. *Deshpande M, Venuprasad K, Parab PB, Saha B, Mitra D. (2002) A novel CD28 mRNA variant and simultaneous presence of various CD28 mRNA isoforms in human T lymphocytes. *Hum. Immunol.* 63:20-23.
5. *Deshpande M. (2001) Causing a stir: biomolecular mixing *Riv. Biol.* 94:443-457.
6. Venuprasad K, Parab P, Prasad DV, Sharma S, Banerjee PR, Deshpande M, Mitra DK, Pal S, Bhadra R, Mitra D, Saha B. (2001) Immunobiology of CD28 expression on human neutrophils. I. CD28 regulates neutrophil migration by modulating CXCR-1 expression. *Eur. J. Immunol.* 31:1536-1543.
7. Sitasawad S, Deshpande M, Katdare M, Tirth S, Parab P. (2001) Beneficial effect of supplementation with copper sulfate on STZ-diabetic mice (IDDM). *Diabetes Res. Clin. Pract.* 52:77-84.
8. *Deshpande M, Mitra D, Parab PB. (2001) Polyacrylamide gel as a matrix for the delivery of a layer or coat of other molecules. *Biotechniques.* 30:258, 261-262.
9. Deshpande M, Katdare M, Parab PB. (2000) Supplementation with soybean lipids reduces goat serum-induced apoptosis in the B cell hybridoma CC9C10. *In Vitro Cell. Dev. Biol. Anim.* 36:1-3.
10. Reddy B.V.B., Deshpande, M. and Pandit M.W. (1991) A computer prediction of splice sites in human genome. In Held.K.D., Brebbia.C.A. and Ciskowski.R.D. (eds). *Computers in Biomedicine*, Proc. First International Conference, Southampton, 24-26 September 1991. Computational Mechanics, Boston, MA.

***Corresponding author**

PATENTS AND PATENT APPLICATIONS

Granted Patents :

1. Deshpande M, Rao H, Wangikar P, Kuchroo P. (2013) A process for the preparation of three-dimensional tissue equivalent using macromass culture. Indian patent no. 255598.
2. Deshpande M, Rao H, Wangikar P, Kuchroo P. (2011) Three-dimensional tissue equivalent using macromass culture. United States patent no. 7,993,922.
3. Deshpande M, Mojamdar M. (2008) Method of macromass culture for generation of macroscopic three-dimensional tissue-like organization of cells. European patent no. EP1730264.
4. Deshpande M, Mojamdar M. (2005) Method of macromass culture for generation of macroscopic three-dimensional tissue-like organization of cells. Indian patent no. 195953.

Patent applications:

1. Process for preparation of tubular grafts or tubular scaffolds for tissue engineering. Deshpande M., Singh A., Indian patent application no. 201821042296, filing date 9/11/2018, publication date 06/09/2019.
2. Device to divert rainwater. Deshpande M., Indian patent application no. 201821039143, filing date 15/10/2018, publication date 01/02/2019.
3. Rain water management system using elevated channels over roads. Deshpande M., Indian patent application no. 201721024084, filing date 07/07/2017, publication date 11/05/2018.
4. A method of preparing a three-dimensional tissue equivalent comprising a cellular sheet, comprising culturing cells onto the surface of the porous scaffold... Deshpande MS, Kuchroo PV, Rao SH, Wangikar PB. European patent application EP1930411, 2008 {{included in Nature Biotechnol. 26 (2008) 'Recent patent applications in tissue culture'}}.

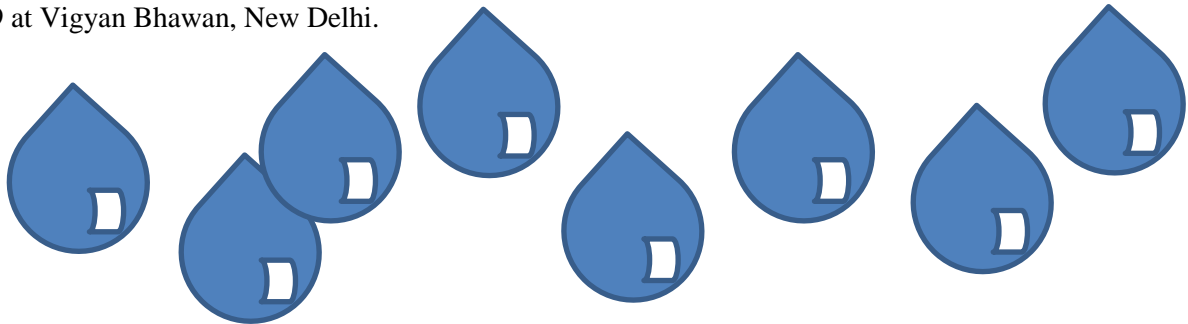
SPECIAL ACHIEVEMENTS

1. Recipient of Award from Wazoku-Innocentive, USA, for Technovation – New Technologies to prevent the transmission of Coronavirus, September, 2020.



2. Participated in “International Webinar on Covid-19 pandemic”, 23rd to 25th June 2020, organized by the Institute of Bioinformatics, Bangalore, India.
3. Member of the Biological Engineering Society, IIT Roorkee, Roorkee, India, from 2020 to present.

4. “Rainwater Management For A Resilient Mumbai and Drought Resistant Maharashtra Of The Future”, *Deshpande M, Joshi D, Kote A, Deshpande S, Kale V, Asalkar S, Thakur A. Scientific meeting with the office of the Additional Municipal Commissioner (Projects) at the Municipal Corporation of Greater Mumbai, Mumbai, 3rd Dec 2019.
5. “Rainwater Management For A Resilient Mumbai and Drought Resistant Maharashtra Of The Future”, *Deshpande M, Joshi D, Kote A, Deshpande S, Kale V, Asalkar S, Thakur A. Paper presented at the 6th India Water Week conference organised by the Ministry of Jal Shakti, Government of India, 24-28th September 2019 at Vigyan Bhawan, New Delhi.



6. Establishment and implementation of “**Annual All Rounder Student Awards**” at DYPBBI, along with Dr. Prakash Nemade; 2019 and 2020.



7. Certificate of Merit for filing Indian patent “Device to divert Rainwater”, from Dr. DY Patil Vidyapeeth, 2019.
8. Certificate of Merit for filing Indian patent “Rainwater management system using elevated channels over roads”, from Dr. DY Patil Vidyapeeth, 2018.
9. Member of the American Society of Gene & Cell Therapy, Milwaukee, USA, 2018 to 2019.
10. National Symposium on “Recent Advances in Modern Biology & Biotechnology” at Dr. D.Y. Patil Biotechnology & Bioinformatics Institute, Pune. Participant & Member of Organizing Committee, 2017.

11. Participated in Workshop on 3D Printing organized by the company Think 3D, Pune, 2016.
12. Product research and development in Tissue Engineering/Regenerative Medicine. Development of a tissue-engineered construct for the treatment of diabetic non-healing ulcers, *'from bench to clinic'*. Clinical trial was successfully conducted with positive safety and efficacy outcome.



13. Course on “Advances in Tissue Engineering” at Rice University, Houston, USA, 2010:- Received 3.1 Continuing Education Units.
14. International Symposium on “Recent Advances in Biotherapeutics” organized by Reliance Institute of Life Sciences, at Dhirubhai Ambani Life Sciences Centre, Navi Mumbai, 13th-14th Feb 2009.
15. “One-Day Update on Burns” organized by the National Burns Centre & General Hospital, Navi Mumbai on 8th Oct 2006.
16. International Symposium on Stem Cells and Regenerative Medicine at Dhirubhai Ambani Life Sciences Centre, Navi Mumbai, Maharashtra, India, 2006.
17. *Homo sapiens* mRNA for putative CD28 protein (CD28 gene). Deshpande, M. Venuprasad, K., Parab, P.B., Saha, B. and Mitra D., GenBank: AJ295273.1, 2005.
18. Indo-US workshop on “Tissue engineering and stem cell technologies” at Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, Kerala, India, 2004.
19. M.Sc. Biotechnology degree project at the Virology Laboratory of the International Centre for Genetic Engineering and Biotechnology (UNIDO), New Delhi, Jan-May 1991.
20. M.Sc. Biotechnology Summer Training at the Centre for Cellular and Molecular Biology, Hyderabad, 1st Jun-18th July 1990.
21. Trophy for the “Most Outstanding Student of Third Year B.Sc. Microbiology for the year 1988-89, at Abasaheb Garware College, Pune.
22. International Study Meeting of Junior Red Cross organized by the Japanese Red Cross Society, in Tokyo, 24th Oct-5th Nov 1988.
23. Certificate of Merit from the Central Board of Secondary Education, New Delhi, for being among the top one percent of 47493 successful candidates of the All India Secondary School Certificate Examination 1984.