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**Academic Qualifications** : Ph.D. Biotechnology, 1999 (University of Pune, Pune, India).

M.Sc. Biotechnology, 1991 (Jawaharlal Nehru University, New Delhi, India).

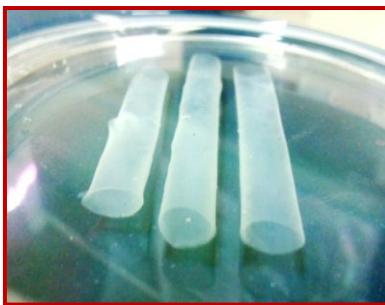
**Teaching Experience** : Dr. D.Y. Patil Biotechnology & Bioinformatics Institute, Pune (August 2014 to present)

Subjects

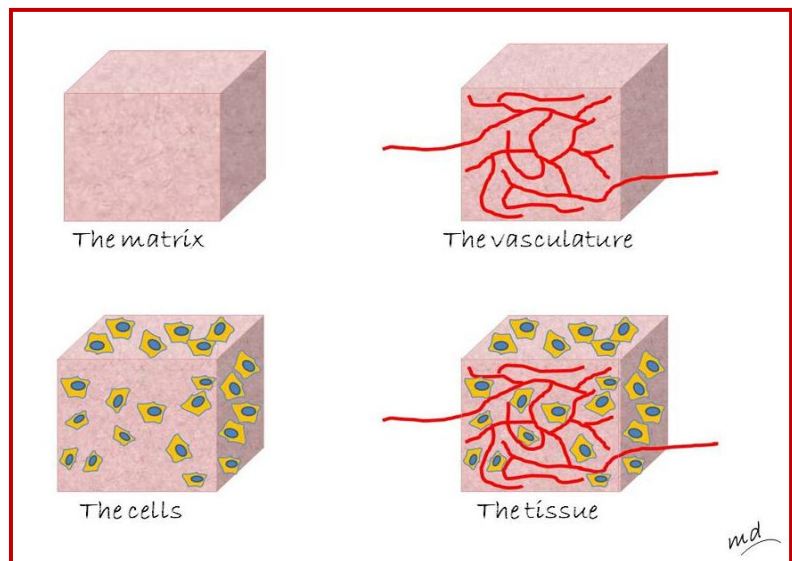
- Tissue Engineering
- Animal Tissue Culture
- Biosensors and Artificial Organs

**Research Area** : Tissue Engineering : Focus on Vascular Tissue Engineering

A. Engineering of small diameter vascular grafts.



B. Vascularization of *in vitro* engineered tissues



### **Research Experience :**

1. **Principal Scientist**, Reliance Life Sciences Pvt. Ltd., Navi Mumbai, Maharashtra, India (July 2001 to August 2011) *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'.*
2. **Research Associate**, National Centre for Cell Science, Pune, Maharashtra, India (February 1999 to June 2001) *Research in Molecular Biology.*
3. **Junior Research Fellow**, Department of Zoology, University of Pune, Pune, Maharashtra, India (April 1993 to June 1994) *Research in Molecular Biology.*

### **Publications :**

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.,Brebba.C.A. and Ciskowski.R.D. (eds). *Computers in Biomedicine*, Proc. First International Conference, Southampton, 24-26 September 1991. Computational Mechanics, Boston, MA.

### **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. Patent application filed for a novel rainwater management system; Deshpande M., Indian Patent Application No. 201721024084, 2017.
2. 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'}

**Trainings/Workshops/Conferences/Other :**

1. Member of the American Society of Gene & Cell Therapy, Milwaukee, USA.
2. National Symposium on “Recent Advances in Modern Biology & Biotechnology” 2017, at Dr. D.Y. Patil Biotechnology & Bioinformatics Institute, Pune. Participant & Member of Organizing Committee.
3. Workshop on 3D Printing organized by the company Think 3D, Pune, 2016.
4. Course on “Advances in Tissue Engineering” at Rice University, Houston, USA, 2010:- Received 3.1 Continuing Education Units.
5. International Symposium on Stem Cells and Regenerative Medicine at Dhirubhai Ambani Life Sciences Centre, Navi Mumbai, Maharashtra, India, 2006.
6. Indo-US workshop on “Tissue engineering and stem cell technologies” at Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, Kerala, India, 2004.