



Dr. Mrs. Alpana S. Moghe

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Designation: Associate Professor & Head,  
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### Educational Background

**Ph.D. (1998) in Microbiology (Virology) from National Institute of Virology, Mumbai Unit (ICMR), Mumbai University**

**Dissertation title:** ‘Genomic analysis of poliovirus strains isolated from polio-endemic region using oligonucleotide fingerprinting method’

**M.Sc. Biochemistry (1986-1988) from Institute of Science, Mumbai University.**

**Major subject:** Biochemistry. Passed in First Division

**B.Sc. Biology Group (1983-1986) from Institute of Science, Nagpur University**

**Subjects:** Botany, Zoology and Chemistry

Passed in First Division with distinction.

### Fellowships:

Recipient of; 1) Lady TATA Memorial Fellowship (1987-1988); Awarded by TATA Memorial Foundation

2) Junior Research Fellowship (JRF) (1988-1990) ICMR

3) Senior Research Fellowship (1991 -1996) ICMR, National Institute of Virology, Mumbai Unit

4) Research Associateship (1996-1998), Dept. of Biotechnology, Pune University (SPPU)

### 1. Teaching Experience

Course	Institution	Particulars of work done (Teaching for subjects)	Duration
B.Sc. Biotech.	RGITBT, BVDU	Molecular Biology Animal Tissue Culture	21 yrs (Since 2003)
B.Sc. Industrial Microbiology	Abasaheb Garware College, Pune (As visiting Faculty)	Animal tissue culture	2 years (2004, 2005)
M.Sc. Biotech.	RGITBT, BVDU	Molecular biology, Tissue Culture, Human	19 yrs (Since 2005)

		Genetics		
<b>M.Sc Medical Biotechnology</b>	RGITBT, BVDU	Stem cell biology and Tissue Engineering		<b>12 years (Since 2012)</b>
<b>M. Pharm Biotech.</b>	Poona College of Pharmacy (As visiting faculty)	Cell Culture Technique		<b>3 years (2003 -2005)</b>
<b>M.Sc. Biotech.</b>	Department of Biotechnology, Pune Univ	Molecular Recombinant technology, Biochemistry	biology, DNA	<b>2 years (1996 -1998)</b>

## Research Experience

### Major scientific fields of interest

Development of *in vitro* 3-dimensional organotypic models for study of drugs and pathogens; Efficacy & genotoxicity studies for anticancer/hepatoprotective/ wound healing/regenerative properties of natural products/ formulations, drug delivery systems using *in vitro* and *in vivo* models.

### Funded Major Research Projects as Principal Investigator

Title of study	Duration	Funding Agency	Grant Amount	Status
<b>Development of genetically tailored organotypic model of human intestine for enterorovirus study</b>	2021-23 2 Years (No:5/3/8/57/2020-ITR)	ICMR	Rs. 50.00, Lakhs	Ongoing
<b>Validation of traditional Unani plant products &amp; ingredients for anticancer effect against hepatocellular carcinoma</b>	2017 (28015/72/2016-HPC EMRC (AYUSH)C)	Ministry of AYUSH	Rs. 64.57, Lakhs	Completed (June 2023)
<b>DBT BUILDER GRANT for Development of Interdisciplinary Research Program</b>	2020 – 2025	DBT	Rs. 264 Lakhs	Ongoing

<b>Utilization of winery waste for value addition</b>	2012-15 <b>As Co-investigator</b>	MOEF (Ministry of Env. Science	Rs. 13.57, Lakhs	Completed
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### **Research Projects (University Funded)**

1. **Development of oral squamous cell carcinoma cell line and spheroid cultures from Indian patient-derived tumor tissue. BVDU MRP Seed fund of 2.5 Lakhs from BVDU, 2024.**
2. **Development of plant extract-impregnated bandages and gel system for enhanced wound healing. BVDU, MRP Seed Fund grant 2022, Duration: 1 Year)**
3. **Influence of selected plant extracts on proliferation, differentiation, and senescence of mesenchymal stem cells. BVDU Minor research project grant 2013, Duration: 1 year)**
4. **Restorative and regenerative effect of Malotilate on immunologically (BCG/LPS) induced liver damage in primary culture rat hepatocyte model' (BCUD Funded, 2017)**

### **Teaching Experience: 23 Years**

- 1) **Initiation of Teaching Programs: Joined as first faculty of the institute and served as key member in initiating UG & PG Biotechnology teaching programs in the Institute**
- 2) **Served as Academic coordinator of the Institute since its inception**
- 3) **Teaching Experience of 23 years for subjects Molecular Biology, Animal Tissue Culture, Genetics, Stem Cell Biology & Tissue Engineering, Indian Knowledge System to B.Sc. Biotechnology, M.Sc. Biotechnology & M.Sc. Medical Biotechnology Programs in the Institute.**
- 4) **Worked as visiting faculty in Abasaheb Garware College, Pune for teaching assignments of M.Sc. Industrial Microbiology coursework (2005-2007) and Poona College of Pharmacy, Pune for teaching assignments of M. Pharm. Biotechnology Course**

### **Work Experience**

- 1) **Teaching Research Associate, Dept. of Biotechnology, Pune University (SPPU) (1996-1998).** Involved in teaching of subjects Molecular Biology, Recombinant DNA Technology & Biochemistry to M.Sc. Biotechnology students of the Department.
- 2) **Molecular Biology scientist, Techlead Software Company (2000-2002)**  
Worked independently with genome analysis software and contributed in the development of microarray data analysis
- 3) **Bioinformatics Scientist, Ocimum Biosolutions, Hyderabad (2002-2003)**
- 4) **Joined as Assistant Professor in Rajiv Gandhi Institute of IT & Biotechnology, Bharati Vidyapeeth Deemed to be University in June 2003 and working till date.**

**Present Designation:** Associate Professor & Head, Dept of Cell & Molecular Biology,

**Few publications in the last five years – (Total Publications: 37)**

1. *Kamyab SS, Moghe AS, Nandi SS, Sawant SA.* Inhibitory effect of ink derived from Indian Loligo duvauceli squid against HIF 1  $\alpha$  induced angiogenesis. *Journal of applied Pharmaceutical Sciences.*14(11)2024. (In press)
2. *Kamyab, S. S., Moghe\*, A. S., Sawant, A. S., Nandi, S. S.* In-Vitro Evaluation of the Anti-Angiogenic Effects of Three Evergreen Plants. *Research Journal of Pharmacognosy*, (RJP) 11(3), 2024: 41–52. doi: 10.22127/rjp.2024.442105.2357
3. *Kamyab SS, Moghe AS, Deshpande MM, Bhatt NS Mulla GJ, Karandikar MN.* Synergic action of plant derivatives and honey for high efficacy of Dawa-ul kurkum formulation against hepatocellular carcinoma. *Indian Journal of Traditional Knowledge. In press*
4. *Bhatt NS, Moghe AS, Shaikh ZA, Kamyab SS, Mulla GJ, Gaikwad N, Deshpande MM.* Quality analysis of traditional Unani formulation Dawa-ul-Kurkum. *Eur. Chem. Bull.* 2023, 12 (S3), 960 – 970
5. *Deshpande MM, Moghe AS, Shaikh ZA, Kamyab SS, Mulla GJ, & Bhatt NS.* (2022). Quality analysis of traditional medicinal plants with potential in management of liver cancer. *Journal of Pharmaceutical Negative Results*, 13, 1804–1813.
6. *Khot DD, Bhosale VI, Kamyab SS, Moghe AS, Patil AS.* Matrix Metalloproteinase-8 Levels in Peri-Miniscrew Crevicular Fluid During Immediate and Delayed Orthodontic Loading--A Split-Mouth Study. *Int J Oral Maxillofac Implants.* 2023 Jan-Feb;38(1):130-135.
7. *Patil GA, Moghe AS* In vitro culture characteristics of young and old rat mesenchymal stem cells. *IJPSR* 202112(9):5040-5050
8. *Ingale D., Kulkarni P., Electricwala A., Moghe A., Kamyab S., Jagtap S., Martson A., Koks S., Harsulkar A.,* Synovium-synovial fluid axis in osteoarthritis pathology; A key regulator of the cartilage degradation process. *Genes* 2021,12,989. <https://doi.org/10.3390/genes12070989>
9. *Borkar S., Patole M, Moghe A, Pokharkar V.* Engineering of pectin – reduced gold nanoparticles for targeted delivery of an antiviral drug to macrophages: *In vitro* and *in vivo* assessment. *Gold Bulletin*, 2017; 50(3): 235-246
10. *Borakar S., Moghe AS, Shouche YS, Pokharkar VB.* Engineering of glycyrrhizin capped gold nanoparticles for liver targeting: *in vitro* evaluation and *in vivo* biodistribution study. *RSC Advances*, 2016,6, 44944-44954
11. *Fernandes EE, Pulwale AV, Patil GA, Moghe AS,* Probing regenerative potential of *Moringa oleifera* extracts using *in vitro* cellular assays. *Pharmacognosy Res*, 2016;8(4):231-237
12. *Patil VS., Mali RS., Moghe AS.* Evaluation and comparison of vitamin D receptors in periodontal ligament tissue of Vitamin D – deficient chronic periodontitis patients before and after supplementation of Vitamin D3’ *Indian Society of Periodontology*, 2019; 23(2): 100-105

**Patents**

1. ‘Development of genetically tailored organotypic model of human intestine for enterovirus studies and methods thereof’ filed (No. 202311003845 20.01.2023 through Indian Council of Medical Research (ICMR).

2. **‘Moringa oleifera flower extract impregnated bandage and gel formulation and preparation method thereof’**. Complete patent, Application number – 202421031412, 19.04.2024
3. Biosynthesis of colloidal nanoparticles using *Bryonia laciniosa* for biological and pharmaceutical applications. Pokharkar VB, Dhapate VV, Kadam SS, Dhapate VV, **Moghe AS**. Publication date: 03/07/2015, Appl. No – 2810/ MUM/2013
4. Antimicrobial activity of silver nanoparticles impregnated on polymeric material. Patil RC, Mule AD, Jadhav V, Katchi VI, Rao AJ, **Moghe AS**, Gaikwad SK, Mulla S. Publication date: 11/6/2010, Journal No – 24/2010
5. An improved distillation and Soxhlet cooling assembly for saving water wastage. Patil RC, Sawant PH, Pawar AR, Gaikwad SK, Trotsky P, **Moghe AS**, Mulla S. Publication date: 15/10/2010, Journal no: 42/2010.

### Book Chapters

1. **Moghe, A.S., Deshpande, M.M., Kamyab, S.S., Chunarkar-Patil, P., Nandi, S.S., Bhatt, N.S.** (2023). Hepatitis C Virus (HCV) and the Role of Phytochemicals in the Antiviral Effects of Different Medicinal Plants Against Infection. In: Pal, D. (eds) Anti-Viral Metabolites from Medicinal Plants. Reference Series in Phytochemistry. Springer, Cham. [https://doi.org/10.1007/978-3-030-83350-3\\_8-1](https://doi.org/10.1007/978-3-030-83350-3_8-1)
2. **Nandi, SS., Paul, P., Lambe, UP., Phalke, S., Sawant, SA., Moghe, AS., et al.** (2023). Herbal Drugs Against Polio Infections: Ethnopharmacology, Chemistry, and Clinical and Preclinical Studies. In: Pal, D. (eds) Anti-Viral Metabolites from Medicinal Plants. Reference Series in Phytochemistry. Springer, Cham. [https://doi.org/10.1007/978-3-030-83350-3\\_14-1](https://doi.org/10.1007/978-3-030-83350-3_14-1)

### Awards/honors

No.	Award/Honors	Year
1	Best Faculty Award for excellence in teaching and research (BVDU)	2017
2	Member, MHRD Innovation Cell, Govt. of India	2019
3	Member, Research Advisory Council, BVDU	2023
4	Member, Research Advisory Committee, DES Pune University	2024
5	Member, Academic Council (BVDU)	2010-12
6	Member, Faculty of Science (Biotechnology) (BVDU)	2014- till date
7	Member, Board of studies in Biotechnology (BVDU)	2003- till date
8	Member, Board of studies in Medical Biotechnology, Pravara Institute of Medical Sciences, Allied Health Science Faculty. Loni	2014-till date

### Participation as Resource Person:

1. Invited as Guest Speaker for **International Iranian Microbiology Congress held in Tehran, Iran** to deliver lecture on **‘In vitro models systems for microbial and virus studies’** 30.08.2024
2. Invited as guest speaker in **National Institute of Virology, Pune** for lecture on **‘In vitro 3D Organoid Models for Virus Pathogenesis Study’**

3. Invited as Technical Expert for Project Monitoring Committee for Biotechnology Ignition Grant (BIG) Scheme, Department of Biotechnology, Govt. of India, 18.09.2020 & 19.09.2020
4. Invited Speaker for AICTE Sponsored Short Term Course (STC) on 'Exploring New Horizons in Pharmacologic Drug Discovery and Development' organized by Poona College of Pharmacy, Pune Feb 28 to 5<sup>th</sup> March 2022
5. Invited speaker at International conference on Unani Medicine – Towards achieving sustainable goal of good health and well-being' organized by Ministry of AYUSH at Vigyan Bhavan, New Delhi, 12.2.2020
6. Invited speaker at Faculty training workshop on 'Basic Techniques in ATC' under Pandit Madan Mohan Malviya National Mission on Teachers and Training Scheme organized by S. P. College, University of Pune, 11.12.2019
7. Invited speaker for UGC sponsored **State Level Workshop** on 'Animal tissue culture techniques' organized by SP College, Savitribai Phule Pune University, **20 & 21<sup>st</sup> Aug 2015**
8. **Invited speaker at International Conference** on 'Emerging trends in pharmaceutical R & D and drug discovery' Allana College of Pharmacy, Pune University, **Jan 15-17, 2015**
9. Invited speaker for **National Conference** on 'Frontiers in Herbal and Pharmaceutical Research and Development' organized by Allana College of Pharmacy, Pune (**15<sup>th</sup> and 16<sup>th</sup> March 2013**)
10. Invited Speaker for **Workshop** organized by NCL Venture Center, Pune (**Sept11 -15 2012**)
11. For **XVII Maharashtra Chapter Conference of Indian Association of Medical Microbiologists 23/9/2011**
12. For **AICTE sponsored Quality Improvement Programme** "Innovations in Pharmacology" for Pharmacy teachers. **29/3/2013.**
13. for **State Level two day UGC sponsored seminar** on 'Recent trends in use of animals in Pharmaceutical Research' organized by Abhinav College of Pharmacy, University of Pune (**29.11.2008**)
14. **Served as Course co-ordinator** for All India level Refresher Course on Animal Tissue Culture organized by **three Indian Academies of Sciences (11.5.2009 – 23.5.2009)**
15. Paper: Jawale S, Patil S, Gujar P, Moghe A 'Evaluation of anticancer activity of *Passiflora foetida* (Linn.) on cancer cell lines' received prestigious **Sajjan Gupta – Konark Memorial Award 2012 for excellence in Bio – research** in the Research Meet organized in G. N. Khalsa College, Mumbai (Dec 2012)

### **Training/ Workshops organized**

1. Faculty Development Program: 6 Days Practical Intensive FDP under DBT Builder Scheme organized on dates 3.4.2023 – 8.4.2023
2. Workshop on 'Essential Molecular and Cell culture techniques for research in Dentistry' for faculty and students of Dental College & Hospital. Organized on 5.4.2016-6.4.2016
3. Workshop on 'Cell lines: A newer avenue for research in medicine; organized on 23.12.2015 for faculty and students on M.D. Pharmacology in Pune
4. Training on 'Virology Techniques' to Medical microbiologists in XVII Maharashtra Chapter Conference on Indian Association of Microbiologists' organized on 23.9.2012
5. Organized and served as course coordinator for All India Level Refresher Course on Animal Tissue Culture sponsored by Indian Academy of Sciences (11.5.2009 – 23.5.2009)

A. S. Moghe

Dr. Alpana S. Moghe