Vinayak Kedage, Ph.D.

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Chief Operating Officer, Chief of R&D, and Lab Director

Scientist and inventor driven by a fascination for science and the ambition to translate ideas into individual health innovation. With over 20 years of expertise in these areas, I have been granted 5 patents, have 12 patent applications in various stages of the process, have published 18 peer-reviewed articles, and have received Indian FDA approval for 3 CGTs (with IND submission to the US FDA).

As a founding member and Chief of R&D at Regrow Biosciences, I have been instrumental in building a state-of-the-art cell culture laboratory and Human Umbilical Cord Blood stem cell banking facility from scratch, the first of its kind in India. Over the years, I have also developed a highly skilled team of scientists and gained Indian FDA approval for the manufacturing of CGTs in the fields of orthopedics, rheumatology, and hematological malignancies.

I have a track record of success at envisioning opportunities and developing innovation and strategic plans through internal development, partnering, investing, or acquisition to drive top and bottom-line growth. With a unique combination of academic, industrial, and commercial experience and strong experience leading scientific programs that are geographically dispersed and multi-functional, I can bridge internal and external innovation networks to quickly and efficiently identify potential solutions for the problem at hand.

With proven leadership skills and accountability, and strong communication and cross-functional abilities, I can quickly establish credibility with senior decision-makers in a wide range of scientific and business contexts.

Invitation to National and International Conferences:

1. Technology Transfer Training, South Korea, 2009 (For Cell Therapy Setup and operations in India)
2. Distinguished Speaker at Stem Cell Asia Conference, Singapore, 2013
3. Indian Biotechnology Delegation to Cuba for scientific collaboration led by the Hon'ble President of India, 2018
4. Distinguished Speaker at Global Bio India, New Delhi, 2019 (Next 10 years of Industry – Advance Technology, AI, BIG Data, First in Class Drug Discovery, Cellular Therapies)
5. Distinguished Speaker, International Conference in Biobanking, India (ILBS, New Delhi), 2020

❑ Bio-process Development for CGTs	❑ JVs & Strategic Partnership	❑ Cell Culture Technology
❑ Comm. of Breakthrough Therapies	❑ Team Building & Leadership	❑ Operations & Risk Mgmt.
❑ Project Management & Appraisal	❑ Analytical Assay Development	❑ Clinical Trials
❑ Collaboration with CROs, CMOs	❑ Hiring & Culture Building	❑ Therapeutics Landscape
❑ Biotechnology & Bioengineering	❑ Process/Platform Development	❑ Cell Reprogramming

Key Laboratory Techniques: Mammalian Cell Culture, Flowctometry (BD Caliber and Canto ll, Thermo Attune), DNA Quantification Techniques, PCR Techniques, Cell Analysis and Cell Quantification, Blotting Techniques, Techniques for Extraction and Storage of Biomolecules, Gel Electrophoresis, Microscopy, Spectroscopic Techniques, Biosafety, Good Manufacturing Practice (GMP), CRO and R&D Management, Bioinformatic Tools

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Leadership Skills: Business Development, Commercial Contracts, Revenue and Capex Planning, Team Building, Recruitment, Project Management, Strategic Partnerships, Translational Research.

Academic Qualifications

Qualification	Institute	University / ID	Year
ADPQAM*	Institute of Pharmaceutical Research and Education	Pune	2009-2010
Ph.D.	Botany (Biotechnology, Cytogenetics and Plant breeding)	Shivaji University	2000-07
M. Sc.	Botany (Cytogenetics and Plant Breeding)	Shivaji University	1998-00
B. Sc.	Botany (Cytogenetics and Plant Breeding)	Shivaji University	1995-98

***Advance Diploma in Pharmaceutical Quality Assurance Management**

Professional Experience

A. Lab Director **Sept. 2008 – Sept 2021.**
Regrow Biosciences Pvt. Ltd., Mumbai
(Previously known as Regenerative Medical Services Pvt Ltd.)

B. Chief Operating Officer and Lab Director and Head R&D **Oct. 2021 – Till date**
Regrow Biosciences Pvt. Ltd., Mumbai
(Previously known as Regenerative Medical Services Pvt Ltd.)

Regrow is an Indian-centric global biotech company with a GMP manufacturing facility located at Lonavala (near Pune, India) with offices in India, US, and Singapore. We are dedicated to researching, developing, and commercializing cell and stem cell-based products targeting degenerative and life-threatening diseases. In our decade long journey, we have crossed several milestones with many firsts:

1. First to receive: Market Authorization and commercial sale license for OSSGROW® (bone cell therapy) and CARTIGROW® (cartilage cell therapy) from Drug Controller General of India (DCGI) in 2017
2. First to innovate: More than 23 patents (granted and applied) across key markets
3. First to develop: Urology-based cell product (UREGROW®) in collaboration with DBT (Ministry of Science and Technology, GOI). Successfully completed Phase IIb clinical trial and Product launched commercially in Indian market in 2020.
4. The lead auditee for the FACT NetCord audit for Stem Cell Banking in August 2016.
5. Developed HLA data base for more than 10,000 Cord blood units.

Roles & Responsibilities:

- Head of the facility of Regrow Biosciences Pvt. Ltd. and monitoring overall activities of Stem Cell Banking, Cell Therapy (Facility is FDA, ISO 13485, GMP, GLP, and GCP compliant).
- Lead the Clinical trials/Post Market Surveillance Studies and regulatory submissions.
- Process Development and Monitoring, Quality control, Quality assurance, Procurement, cold chain Logistics and supply management.
- Development of analytical methods and their validations required for Hematology, Biochemistry, Infectious Diseases and stem cell/cell-based assays.
- Plan, execute, maintain oversight, support, and report on clinical trials through study closeout
- New therapy development and Development of SOP and its periodical review

- Training and development of scientific and business support teams, oversight of marketing communication on therapies.
- Publications of discoveries and scientific achievements in International and National journals
- Support marketing and sales teams in scientific queries and communication to physicians and patients
- Cold chain supply monitoring for products, vendor management, procurements and Negotiations.
- Client/Patient/physician communication and counseling for treatment / Stem cell banking/ adverse events/infectious disease testing outcome.

C. Assistant Professor **Jan. 2008 to August 2008**
Dr. DY Patil Institute for Biotechnology and Bioinformatics
Worked as Senior Lecturer for B. Tech and M. Tech Biotechnology Students and mentor for degree students for Project/Dissertation work.

D. Research Fellow / Ph.D. Fellow **June 2000 – December 2007**
Shivaji University Kolhapur and
Bhabha Atomic Research Centre (BARC), Mumbai

a. Carried out research work on Grape (*Vitis vinifera* L.) cultivars and it's wild relatives for a phylogenetic relationship, disease resistance, antioxidant potential, and *in vitro* tissue culture. A Part of the PhD dissertation was carried out at Bhabha Atomic Research Institute (BARC).
b. Worked as a contributory lecturer for MSc Biotechnology and MSc Sericulture and as a mentor for post-graduate students for Project/Dissertation work.
c. Worked on the project for the conservation of critically endangered plants by using biotechnological tools.

Additional Information:

Working as Board of Studies as an Industry Expert for the following Autonomous Colleges/Universities for the design of syllabus.

1. Nya. Tatyasaheb Athalye Arts, Ved. S.R. Sapre Commerce and Vid. Dadasaheb Pitre Science College (Autonomous) Late Kakasaheb Pandit Educational Campus, Devrukh, Dist: Ratnagiri- 415 804, Maharashtra
2. Y. C. Institute of Science, Satara - 415 001 Maharashtra
3. Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati, Dist. Pune - 413 102, Maharashtra, India

Clinical Trials/Pre-Clinical Studies/Research Projects

Sr. No.	Project Title	Project Duration	Stage of Trial
1.	A Prospective open-label, multicentric study to access the safety and efficacy of autologous adult live-cultured chondrocytes in subjects with articular cartilage defects	September 2012 to March 2016	Phase III Human Clinical Trial

2.	A prospective open-label, multicentric study to access the safety and efficacy of autologous adult live-cultured Osteoblasts in subjects with Avascular Necrosis of Hip Joints (up to Grade IIb)	September 2012 to March 2016	Phase III Human Clinical Trial
3.	A prospective, open-label, multi-centric study to assess the safety and efficacy of Autologous Adult Live Cultured Buccal Epithelial Cells (Uregrow™) in Subjects with Urethral Stricture.	November 2016 to November 2018	Phase IIb Human Clinical Trial
4.	Post Market Surveillance of Autologous Adult Live Cultured Osteoblasts in patients with Avascular Necrosis (AVN) of Hip Joint(s).	Aug 2017 to July 2020	Post-Market Surveillance Studies
5.	Post-Market Surveillance of Autologous Adult Live Cultured Chondrocytes in patients with Articular Cartilage Defects of the Knee Joint(s)	Aug 2017 to June 2020	Post Market Surveillance Studies
6.	Acute Toxicity Study of Autologous Adult Live Cultured Chondrocytes, Autologous Adult Live Cultured Buccal Epithelial Cells, and Mesenchymal Cells in Sprague Subcutaneous Route	October 2018 to December 2018	Preclinical Studies
7.	Evaluation of Efficacy and safety of Stem cells in CFA Induced Arthritis in Sprague-Dawley (SD) Rats	March 2020 to November 2020	Preclinical Studies
8.	Cord Blood-Derived Hematopoietic Stem Cells Expansion for Therapeutic use in humans	August 2020 to Ongoing	Basic Research
9.	PreIND submission for the cell based product Autologous Adult Live Cultured Osteoblasts to be used in patients with Avascular Necrosis (AVN) of Hip Joint(s).	April 2021 to Feb 2022	PreIND submission to USFDA
10.	Preclinical Studies of safety and efficacy evaluation by engraftment, chimerism, and homing of Cord blood-derived expanded Hematopoietic stem cells in SCID NOD mice.	Feb. 2022 to Ongoing	Preclinical Studies
11.	Safety of Human Umbilical Cord Tissue derived Mesenchymal stem cells for Acute Toxicity, Repeated Dose Toxicity, Dose Range Finding Studies and Tumorogenicity studies.	Feb, 2022 to ongoing	Preclinical Studies
12.	Preperation of IND submission for the cell based product Autologous Adult Live Cultured Osteoblasts to be used in patients with Avascular Necrosis (AVN) of Hip Joint(s).	June 2022 to ongoing	IND Dossier for USFDA.
13.	Post Market Surveillance of Autologous Adult Live Cultured Buccal Epithelial Cells for the treatment of Urethral Stricture in male patients.	August 2022 to Ongoing	Post Market Surveillance Studies
14.	CMC and Preclinical Studies for the change in the exceipient of the Cell Therapy products for Indian Market.	Sept. 2022 to onging	CMC and Preclinical Studies
15.	Biocompatibility studies of the delivery devices for the Cell and stem cell based Products.	Sept, 2022 to ongoing	Biocompatibility Studies

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16.	Studies on short-term and long-term Homing and engraftment of Human CD3B4 in busulfan-conditioned conditioned SCID mice	October 2022 to ongoing	Preclinical studies
17.	SD rat toxicity studies for the different cell tharpy exceipients	March 2023 to ongoing	Preclinical studies

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Patents, Publications, Poster/Paper Presentation, Talks

Patents Granted: 08

Sr. No.	Application No	Grant Number	Title of Invention	Name of Inventor(s)	Granted Country	Grant Date
1.	201621040918	318631	A PROCESS OF PREPARING CHONDROCYTE CELL SUSPENSION AND ITS USE	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	India	21-Aug-2019
2.	2019/03473	2019/03473	A PROCESS OF PREPARING CHONDROCYTE CELL SUSPENSION AND ITS USE	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	South Africa	27-Jan-21
3.	201621038900	392571	A PROCESS OF PREPARING BUCCAL EPITHELIAL CELL SUSPENSION AND ITS USE	1, Satyen Sanghavi 2. Dr. Vinayak Kedage 3. Dr. Charul Bhanji	India	22-Mar-2022
4.	3005/MUM/2014/	369492	A METHOD OF INDUCING BONE FORMATION BY EX-VIVO OSTEOBLAST CULTURING FOR IMPLANTATION	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	India	17-Jun-2021
5.	201921005150	413729	PLATELET LYSATE, AND METHOD OF PREPARATION THEREOF	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	India	06-Dec-2022
6.	201921005149	415024	OSTEOBLAST CELL MIXTURE, AND IMPLEMENTATIONS THEREOF	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	India	21-Dec-2022
7.	201721026910	437506	OPTIMIZED HEMATOPOIETIC STEM CELL CFU ASSAY	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	India	06-July-2023
8.	17/428590	**12,097,221**	PLATELET LYSATE, AND METHOD OF PREPARATION THEREOF	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	USA	24-Sep-2024

Patent applications Filled Under PCT: 07

Sr. No.	Application No	Title of Invention	Name of Inventor(s)	Filed Date
1	PCT/IN2020/050120	PLATELET LYSATE, AND METHOD OF PREPARATION THEREOF	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	**07-Feb-20**
2	PCT/IN2020/050123	METHOD FOR MESENCHYMAL STEM CELL ISOLATION AND OSTEOBLAST DIFFERENTIATION	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	**07-Feb-20**
3	PCT/IN2020/050122	OSTEOBLAST CELL-MIXTURE, AND IMPLEMENTATIONS THEREOF	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	**07-Feb-20**
4	PCT/IN2017/000135	A PROCESS OF PREPARING CHONDROCYTE CELL SUSPENSION AND ITS USE	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	**29th Nov 2017**

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5	PCT/IN2017/000129	A PROCESS FOR PREPARING BUCCAL EPITHELIAL CELL SUSPENSION AND ITS USE	1, Satyen Sanghavi 2. Dr. Vinayak Kedage 3. Dr. Charul Bhanji	**10th Nov 2017**
7	PCT/IN2021/050785	METHOD OF OBTAINING HSC POPULATION, T CELL POPULATION AND NK CELL POPULATION AND COMPOSITIONS THEREOF	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	**16-Aug-2021**

Patent applications Filled Under National Phase 08

Sr. No.	Application No	Title of Invention	Name of Inventor(s)	Filed Country
1.	15/761,396	A PROCESS OF PREPARING BUCCAL EPITHELIAL CELL SUSPENSION AND ITS USE	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	United States of America
2.	11201904359X	A PROCESS FOR PREPARING BUCCAL EPITHELIAL CELL SUSPENSION AND ITS USE	1, Satyen Sanghavi 2. Dr. Vinayak Kedage 3. Dr. Charul Bhanji	Singapore
3.	15/761,392	A PROCESS OF PREPARING CHONDROCYTE CELL SUSPENSION AND ITS USE	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	United States of America
4.	17/428,590	PLATELET LYSATE, AND METHOD OF PREPARATION THEREOF	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	United States of America
5.	201921005151	METHOD FOR MESENCHYMAL STEM CELL ISOLATION AND OSTEOBLAST DIFFERENTIATION	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	India
6.	17/428,587	METHOD FOR MESENCHYMAL STEM CELL ISOLATION AND OSTEOBLAST DIFFERENTIATION	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	United States of America
7.	17/428,592	OSTEOBLAST CELL-MIXTURE, AND IMPLEMENTATIONS THEREOF	1, Satyen Sanghavi 2. Dr. Vinayak Kedage	United States of America
8.	202121029375	METHOD OF OBTAINING HSC POPULATION, T CELL POPULATION AND NK CELL POPULATION AND COMPOSITIONS THEREOF	1, Satyen Sanghavi 2. Dr. Vinayak Kedage 3. Pradnya Dalvi	India

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Publications in National and International Journals

1. S. S. Pawar, O. Selyshchev, L. Rasabathina, O. Hellwig, V. V. Kedage, D.R.T. Zahn, V. Stephan, B. Kersting, G. Salvan, A. D. Chougale, P.B. Patil (2024) Magnetic Nanoparticle-Mediated Multimodal Cancer Therapy: Hyperthermia, Controlled Drug Release, and Antibody-Based Precision. *Advanced Therapeutics* 7(10). DOI: **10.1002/adtp.202400168**

2. Haria Pankti, Kedage Vinayak, Dalvi Pradnya, Sanghavi Satyen, Parvathi Chandran (2023) Successful combined umbilical cord blood and bone marrow transplantation from an HLA matched sibling for MPS VI: a case report. *Therapeutic Advances in rare disease* 4:1-7. https://doi.org/10.1177/263300402311542.

3. Satyen Sanghavi, Vinayak Kedage, RajeshSingh, Parvathi Chandran, Vidya Jadhav, Sujata Shinde (2021) Effect of Human Mesenchymal Stem Cells on Freund's adjuvant-induced Rheumatoid Arthritis in Sprague Dawley Rats. *BioRxiv* (Preprint) https://doi.org/10.1101/2021.12.20.473415

4. Vinayak V Kedage, Rajesh Singh, Paravthi C, and Satyen Sanghavi (2021) Robust and Scalable Manufacturing of Cell Therapy – Chondrocyte Culture for Cartilage Regeneration. *Bioprocessing Journal*. 20. https://doi.org/10.12665/J20OA.Kedage

5. Kedage VV, Sanghavi SY, Gaunkar TU, Ravi B (2020) Mutation of CCR5 Delta 32 in Umbilical Cord Blood Samples: Future Potential for HIV-1 Cure. *JCDR*.14(5): KC01-03 (IF 0.348)

6. George Jacob, Shetty V, Shetty SM, Varughese J, Singh. RP, and Kedage VV (2020) Corrigendum to “An *in vitro* study on the effects of various concentrations of low and high molecular weight hyaluronic acid on human chondrocyte cell metabolism” *J. Arthrosc. Joint Surg*., 7(2) 98-101

7. George Jacob, Shetty V, Shetty SM, Varughese J, Singh. RP, and Kedage VV (2019) An in vitro study on the effects of various concentrations of low and high molecular weight hyaluronic acid on human chondrocyte cell metabolism. *J. Arthrosc. Joint Surg.* 6(2): 123- 127 (IF 0.22)

8. Sanghavi SY, Gaunkar TU, Gokale VV, Kedage VV, Ponkshe R, Vyas D (2019) Cytomegalovirus seroprevalence and immunity in Indian perinatal women: experience of a cord blood bank. *JCDR*. 13(11): DC10-DC13 (IF 0.348)

9. Satyen Y. Sanghavi, Tripti U. Gaunkar and Vinayak V. Kedage (2019) Discovery of a novel HLA class I allele, HLA-B*38:75, in an Indian umbilical cord blood sample. *HLA Immune Response Genetics.* 94(5): 442-443. (IF 2.785)

10. Karade VC, Parit SB, Dawkar VV, Devan RS, Choudhary RJ, Kedage VV, Pawar NV, Kim JH, Chougale AD (2019) A green approach for the synthesis of α-Fe2O3 nanoparticles from Gardenia resinifera plant and its *in vitro* hyperthermia application. *Heliyon* 5 (7) e02044 (IF 0.84)

11. Charul Bhanji, Ramesh Ranka, Rajiv Arora, Satyen Sanghavi and Vinayak Kedage (2018) Fibrous Dysplasia: A Case Report of Novel Treatment Approach. *J Bone Res* 6: 192. doi:10.4172/2572-4916.1000192

12. George Jacob, Shetty V, Shetty SM, Varughese J, Singh. RP, Malgatti SS and Kedage VV (2017) A Comparative Study on the Effects of Methylprednisolone Concentration on Human Chondrocyte Cell Metabolism *in vitro*. *Ortho & Rheum Open Access* 5(2): 555660. (IF 0.712).

13. Vinayak Kedage, Simran Lilwani, Mayur Kamble, Mansingraj Nimbalkar, Sandeep Pai, Ghansham Dixit (2017) Rapid in Vitro multiplication protocol for *Ceropegia* noorjahaniae Ans., a critically endangered, endemic plant of the Western Ghats. Advances in Plants & Agriculture Research. 7(2): 267-270. DOI: 10.15406/apar.2017.07.00253

14. Firdose R. Kolar, Swaroopa R. Ghatge, Vinayak V. Kedage, Ghansham B. Dixit (2014) An assessment of phytochemical constituents and antioxidant potential of *Delphinium malabaricum* (Huth) Mun. *Turk J Biochem* 39(3):277–284. (IF 0.33)

15. Vinayak V. Kedage, Satyen Y. Sanghavi, Anurag P. Bandre, Neetin S. Desai (2010). Autologous Chondrocyte Implantation (ACI): An Innovative Technique for Articular Cartilage Defects. *Journal of Clinical Orthopedics and Trauma* 1(1):33-36. (IF 0.447)

16. Vinayak V. Kedage, Swaroopa R. Ghatge, S. R. Yadav, and G. B. Dixit. (2009) Rescue of an endemic and vulnerable plant *Seshagiria sahyadrica* Ans. & Hem. through micropropagation. *Proceedings of National Academy of Sciences, India* 79 B (III): 262- 266. (IF 0.396)

17. Sandeep R. Pai, Nimbalkar M. S., Pawar N. V., Kedage V. V. and Dixit G. B (2008): *In vitro* embryo culture and ex-situ regeneration studies in *Ancistrocladus heyneanus* Wall. ex Grah.' *Plant Cell Biotechnology and Molecular Biology*. 9(3&4): 95-100. (IF 0.24)

18. Vinayak V. Kedage, Jai C. Tilak, G. B. Dixit, T.P. A. Devasagayam and Minal Mhatre (2007) "A study of Antioxidant Properties of Some Varieties of Grape (*Vitis Vinifera* L.)". *Critical Reviews in Food Science and Nutrition* 47:175-185. (IF 6.077)

19. Swaroopa R. Ghatge, Vinayak V. Kedage and Ghansham B. Dixit (2007) "Somatic Embryogenesis and Plant Regeneration of a Rare and Multipurpose Medicinal Plant *Hemidesmus indicus* (L.) Schult." *Plant Cell Biotech. Mol. Biol.* 9(1&2): 71-74. (IF 0.24)

Papers and Poster Presentation in Symposia, Conferences, and Seminars:

1. Vinayak V. Kedage and G. B. Dixit. (2002)." Disease Resistance Breeding in Grape (Vitis Vinifera L.) I: Downy Mildew (*Plasmopara viticola* Berk & Curt.)" paper presented in the National Symposium on Microbes & host -Microbe interaction, held at, Department of Botany, University of Calcutta, Kolkatta. (2nd & 3rd Feb 2002)

2. Vinayak V. Kedage and G. B. Dixit. (2003). "Evaluation of Grape Germplasm for Downy Mildew Resistance", a poster presented in Campaign on University Research Training (COURT 2003), Shivaji University, Kolhapur.

3. Vinayak V. Kedage, Jai C. Tilak, G. B. Dixit, TPA Devasagayam and Minal Mhatre (2004) "Antioxidant Properties of Different Grape (Vitis Vinifera L.) Varieties in India", a poster presented in the International conference on, 'Natural Products, Free Radicals and Radioprotectors in Health (NFRH – 2004)', held at Department of Biochemistry, Annamalai University, Chidambaram, Tamilnadu. (17 – 19 Jan. 2004).

4. Vinayak V. Kedage, Swaroopa R. Ghatge and G. B. Dixit. (2004) "*In vitro* rapid multiplication of *Gladiolus* spp.", a poster presented in the seminar on, 'Botany and Industry' held at Department of Botany, Shivaji University, Kolhapur. (21 Feb. 2004)

5. Vinayak V Kedage, Swaroopa R.Ghatge, S R Yadav and G B Dixit (2005) *In vitro* propagation of Seshagiriya sahyadrica Ans. & Hem. : A Rare Endemic plant of Western Ghats. Paper presented at XV Annual Conference of Indian Association for Angiosperm Taxonomy (IAAT) and National Seminar on Emerging Trends in Plant Taxonomy., organized by University of Nagpur, R. T. M. University, 20th and 21st October 2005.

6. Vinayak Kedage and G. B. Dixit (2006) *In vitro* propagation of *Ceropegia noorjahani* Ans.: A critically endangered, endemic plant of Maharashtra. A Poster Presented at International Symposium on "Frontiers in Genetics and Biotechnology- Retrospect and Prospect." Department of Genetics, Osmania University, Hyderabad.

7. Vinayak V. Kedage, Swaroopa R. Ghatge, Mansingraj S. Nimbalkar, S. R. Yadav and G. B. Dixit (2006). Micropropagation, the only way for multiplication, conservation and survival of *Ceropegias*. Poster presented at National Conference on Biodiversity-related International conventions: Role of Scientific Community, organized by Delhi University Botanical Society, International Society of Phytomorphology, Department of Botany, Delhi University, New Delhi.

8. Swaroopa R. Ghatge, Vinayak Kedage and G. B. Dixit (2006) Conservation of *Rubia cordifolia* L.: An economically important medicinal plant through micropropagation and reintroduction in its natural habitat. Paper presented at International Seminar on Present Trends and Future Prospects of Angiosperm Taxonomy, organized by Agarkar Research Insitute, Pune, (4 – 6 Oct. 2006).

9. Sandip R. Pai, Vinayak V. Kedage, Mansingraj S. Nimbalkar, Nilesh V. Pawar, and G.B. Dixit (2007) Embryo culture of *Ancistrocladus heyneanus* Wall. Ex. Grah. And *Nothopodytes nimmoniana* Grah. : an important anti-neoplastic plant. A paper presented in International Seminar on Changing Scenario in Angiosperm Systematics, Department of Botany, Shivaji University, Kolhapur, 19-21 Nov. 2007.

10. Vinayak V. Kedage, Swaroopa R. Ghatge, Sandeep R. Pai, Nilesh V. Pawar, Minal Mhatre and G. B. Dixit (2007) Morphological Diversity Analysis in Grape Germplasm. International Seminar on Changing Scenario in Angiosperm Systematics, Department of Botany, Shivaji University, Kolhapur, 19-21 Nov. 2007. A poster presented in International Seminar on Changing Scenario in Angiosperm Systematics, Department of Botany, Shivaji University, Kolhapur, 19-21 Nov. 2007.

11. Vinayak V. Kedage, A. N. Chandore, S. R. Yadav, and R. V. Gurav (2007) Regeneration of critically endangered, endemic plant Hubbardia heptaneuron Bor through in vitro seed culture. A poster presented in International Seminar on Changing Scenario in Angiosperm Systematics, Department of Botany, Shivaji University, Kolhapur, 19-21 Nov. 2007.

12. Arun N. Chandore, Vinayak V. Kedage, S. R. Yadav, and R. V. Gurav (2007) Restoration of critically endangered and endemic plant, Hubbardia heptaneuron Bor in the Western Ghats. A paper presented in International Seminar on Changing Scenario in Angiosperm Systematics, Department of Botany, Shivaji University, Kolhapur, 19-21 Nov. 2007.

13. Vinayak V. Kedage (2007). Role of Plant Tissue Culture in Biodiversity Conservation. *Shivaji University Communicator Special Issue IAAT Conference*. pp.3.

14. Arun N. Chandore, Mansingraj S. Nimbalkar, Vinayak V. Kedage, R. V. Gurav and S. R. Yadav (2008). Regeneration of critically endangered *Ceropegia fantastica* Sedg. through in vitro culture. A paper presented in International seminar on Multidisciplinary approach in

Angiosperm Systematics, Department of Botany Kalyani University, Kolkatta, West Bengal, 11-13 Oct. 2008.

15. George Jacob, Vikram Shetty, Siddharth M. Shetty, Jacob Varughese, Rajesh Singh, Swetha S Malgatti, and Vinayak Kedage. A Comparative *in vitro* Study on the Effects of Various Concentrations of Low and High Molecular Weight Hyaluronic Acid on Human Chondrocyte Cell Metabolism. A paper presented in 2017 ISAKOS Biennial Congress, Shanghai, China. 4 – 8 June 2017.

Invited Talks

1. **Delivered a talk on "**Cellular therapy and quality control in rare disease management" as the distinguished speaker for **Biobanking International Symposium 2020 organized by Institute of Liver and Biliary Sciences, New Delhi 20/21 February 2020.**
2. Represented as one of the panelists in the session of Next 10 years for Industry - Advanced Technologies (AI, BIG Data, First-In-Class drug discovery, Cellular therapies) at Global Bio India event organized by Department of Biotechnology Govt of India in association with BIRAC, CII, ABLE and Invest India, dated: 21-23 November 2020.
3. **Delivered talk on "Stem cells and Cell Therapy**" as a distinguished speaker at First International Conference on Materials and Environment (ICMES-2018) organized by Shivaji University, Kolhapur Dated: 07-08 December 2018.
4. **Delivered talk on "Autologous Cell Therapy**" as a distinguished speaker at Annual conference of Indian Pharmacological Society at SP Patel School of Pharmacy and Technology Management Mumbai, dated: 15-17 Feb 2018
5. Presented **Clinical outcome of Autologous cell Therapy** as a distinguished speaker at World Stem Cell and Regenerative Medicine, Congress Asia 2013 at Resorts World Santosa, Singapore, 18-21 March 2013.

Seminars, Workshops, and Conferences

Sr. No.	Workshop/Seminar/Conference Title	Sponsoring Organization	Organized by, Place & Year
1.	Virtual 22nd INDO-US Flow cytometry workshop	Regrow Biosciences Pvt. Ltd.	Trust Education and Training in Cytometry 22 Feb 2021 - 28Feb 2021
2.	World Stem Cell and Regenerative Medicine Congress Asia 2013	Regrow Biosciences Pvt. Ltd.	Resorts World Santosa, Singapore, 18-21 March 2013
3.	One day awareness on Current Good Manufacturing Practices	BSI (British Stanadard Institution	Mumbai 09 May, 2011
4.	Sixth Annual Conference of Biotechnology for Stem Cell Application and Tissue Engineering	Regrow Biosciences Pvt. Ltd.	Society for Regenerative Medicine and Tissue Engineering 31 Jan-01 Feb, 2010
5.	Advanced training in Stem Cell Culture and Quality Control Analysis	Regrow Biosciences Pvt. Ltd.	Sewon-Cellon Tech, Seoul, South Korea. 16 Feb – 3 April 2009

6.	Animal Tissue Culture and Stem Cell Biology	Regrow Biosciences Pvt. Ltd.	Shri Raghavendra Biotechnologies Pvt. Ltd. 13-25 Oct 2008
7.	XVII Annual Conference of Indian Association for Angiosperm Taxonomy" and International Seminar on Changing Scenario in Angiosperm Systematics	UGC and DST New Delhi	Shivaji University, Kolhapur 19-21 Nov 2007
8.	Campaign on University Research Training	Shivaji University, Kolhapur	Shivaji University, Kolhapur 6-7 Oct 2006
9.	XVI Annual Conference of Indian Association for Angiosperm Taxonomy" and International Seminar on, "Present Trends and Future Prospects of Angiosperm Taxonomy	MoEF and DST, New Delhi	MACS-Agharkar Research Institute, Pune 4-6 October 2006
10.	National Conference on, "Biodiversity Related International Conventions: Role of Indian Scientific Community"	Delhi University Botanical Society, New Delhi	Department of Botany, Delhi University 8-10 March 2006
11.	International Symposium on, "Frontiers in Genetics and Biotechnology: Retrospect and Prospect"	DST and DBT, New Delhi	Department of Genetics, Osmania University, Hyderabad 8-10 January 2006
12.	One day Workshop on, "Molecular Biology Technique"	Department of Biotechnology, Shivaji University, Kolhapur	Department of Biotechnology, Shivaji University, Kolhapur 19 November 2005
13.	XV Annual Conference of IAAT and National Seminar on Emerging Trends in Plant Taxonomy	DST, New Delhi	Department of Botany, RTM Nagpur University, Nagpur 20-21 Oct., 2005
14.	National Seminar on The Wetlands	Shivaji University, Kolhapur	Department of Botany, Shivaji University, Kolhapur 2nd Feb 2005
15.	Seminar on Botany and Industry	Shivaji University, Kolhapur	Department of Botany, Shivaji University, Kolhapur 21 Feb 2004
16.	International Conference on, "Natural Products, Free Radicals and Radio-protectors in Health (NFRH – 2004)"	UGC, New Delhi, International Society for Free Radical Research, UNESCO – MCBM	Department of Biochemistry, Annamalai University, Chidambaram, Tamilnadu 17 – 19 Jan 2004
17.	Two days International Seminar on "Sugarcane Genomics and Genetic transformation in Sugarcane"	VSI, Pune	Hotel Le Meridian, Pune 26- 27 August 2003
18.	Campaign on University Research Training (COURT 2003)	Shivaji University, Kolhapur	Dept of Environment, Shivaji University, Kolhapur, 2003
19.	Workshop on Human Genetics	Indian Council of Medical Research, New Delhi	CPR Hospital, Kolhapur 11 - 12 October 2002

20.	National Symposium on, Mycology, Microbes & Host-microbe interaction	Department of Botany, University of Calcutta, Kolkata	Department of Botany, University of Calcutta, Kolkatta 2 - 3 Feb 2002
21.	Workshop on Plant Biosystematics	Ministry of Environment and Forestry (MoEF)	Centre for Environmental Management of Degraded Ecosystems, University of Delhi 29 Oct - 8 Nov, 2001

Mentor to Students for Academic Projects/Dissertations

Sr. No.	Name of the Student	Academic Year	Title of Project/ Dessertation
1.	Kulkarni Chaitnya R.	2005-2006	"*In vitro* propagation and Biochemical Studies in *Ceropegia* Sps."
2.	Wadgane Kranti T	2005-2006	"*In vitro* propagation in *Vitis vinifera* L. cv. Flame Seedless",
3.	Borate Jyostna C.	2005-2006	"Callus culture and Biochemical Studies in *Vitis vinifera* L."
4.	Kudale Subhash S.	2005-2006	"Tissue Cultural Studies in *Artemisia pallens* Wall.".
5.	Mokashi Pournima U.	2005-2006	*In vitro* evaluation of antimicrobial activity and Biochemical Studies of *Lawsonia inermis* L. and *Hemidesmus indicus* (L.) Schult."
6.	Jadhav Rupali K	2005-2006	"*In vitro* studies in *Vitex negundo* L."
7.	Tate Shilpa R	2005-2006	"*In vitro* studies in *Gymnema sylvestre* (Retz.) R. Br."
8.	Magdum Mahesh M	2s005-2006	*In vitro* rapid multiplication of *Ceropegia anantii* Yadav: a critically endangered, endemic plant of Western Ghats"
9.	Pawar Tejaswini S.	2007-2008	"*In vitro* evaluation of potential biological activity and biochemical studies of Genus *Swietenia*".
10.	Pisal Arti C.	2007-2008	"*In vitro* propagation and biochemical studies in *Woodfordia fruticosa* (L.) Kruz. : an important medicinal plant.
11.	Jain Adarsh	2007-2008	Induction of hairy roots in Rubia cordifolia and detection of alizarin by HPLC method.
12.	Rampuria Meghana	2007-2008	Production of wine from different grape cultivars and determination of their antioxidant potential
13.	Sharma Aditya	2007-2008	Development of rapid detection method for banana bunchy top virus using RAPD.
14.	Shah Arpit and Singh Pooja	2007-2008	Determination of culture-induced genetic variability in bananas using RAPD.

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Date: 13 May, 2024

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