

CURRICULUM VITAE

Name and present position

Dr. VINAYAK HARIBHAU LOKHANDE

(M.Sc., Ph.D., SET, DSK-PDF) Head of the Department and Assistant Professor Department of Botany, Shri Shiv Chhatrapati College of Arts, Commerce and Science, (Aided, Affiliated to University of Pune, Pune) Bodkenagar, Junnar, Pune – 411 007, Maharashtra, India. Email : <u>vhl11983@gmail.com</u> Mobile No. : 7841994091 / 9011045087

Areas of interests

Botany, biodiversity conservation, environmental protection, plant tissue culture, applied molecular biology, genetic engineering, physiology and biochemistry, phytoremediation for crop improvement, secondary metabolite extraction and quantification, and sustainable agriculture development, Organic farming.

Experience

Teaching experience	=	10 years
Research experience	=	11 years

Professional experience

- M.Phil./Ph.D. Research guide : Department of Botany, Savitribai Phule Pune University, Pune. Presently two students (Mr. Suresh Kale and Mrs. Sarika Bhumkar) registered for Ph.D. on 29/02/2020 under my guidance at Department of Botany, Annasaheb Awate College, Manchar, Ambegaon.
- **Reviewer:** Acted as "Reviewer" to evaluate the research papers for the International Peer review journals.
- Subject Expert: Worked as SPPU University appointed "Subject Expert" to fill up the Grantable positions of Assistant Professor in Botany subject on 29 June 2019 at Sangamner Nagarpalika Arts, D. J. Malpani Commerce and B. N. Sarda Science College, Sangamner, Dist. Ahmednagar.

- Expert: Acted as SPPU approved Member for the Inspection of SY and TYBSC Botany Laboratory for the Approval of Practical Examination Centre at Shri Shai Sansthan and Shri Sai Nirman College at Shirdi.
- **Resource Person:** Acted as "Resource person" at various conferences, workshops, webinars, Lecture series, Ph.D. Course work, etc.
- **Ex-Student Development Officer:** Student's Development Board, Shri Shiv Chhatrapati College, Junnar.
- **Ex-Program Officer**: National Service Scheme (NSS), Shri Shiv Chhatrapati College, Junnar.
- **Chairman:** NAAC Steering Committee, Campus Development Department, Annual Prize Distribution Committee.
- **Member:** Examination Department, Competitive Examination Centre, College, Library Student Development Board, Student Consumer Board.

<u>Awards</u>

- DST "YOUNG-SCIENTIST" AWARD for the research project entitled "Studies on differential gene expression related to salt tolerance in a halophyte Sesuvium portulacastrum (L.) L." from Department of Science and Technology (DST), New Delhi.
- **BEST POSTER PRESENTATION AWARD,** In the DAE-BRNS Life Sciences Symposium 2018 (LSS-2018) on "Frontiers in Sustainable Agriculture" organized by Bio-Science group, Bhabha Atomic Research Centre (BARC), Trombay, Mumbai.
- **BEST POSTER AWARD,** International Symposium on "Plant Biotechnology: A Global Scenario" at Warangal, Andhra Pradesh (November 2-4, 2010).

Fellowships / Scholarships

- Dr. D.S. Kothari Post Doctoral Fellowship (DSK-PDF) from University Grant Commission (UGC), New Delhi.
- **DBT-Research Associateship** (DBT-RA) from Department of Biotechnology (DBT), New Delhi.
- Senior Research Fellowship (SRF), Department of Atomic Energy-Board for Research in Nuclear Sciences (DAE-BRNS), Mumbai
- Junior Research Fellowship (JRF), Department of Atomic Energy-Board for Research in Nuclear Sciences (DAE-BRNS), Mumbai
- Research Associate (RA), Department of Atomic Energy-Board for Research in Nuclear Sciences (DAE-BRNS), Mumbai
- University of Pune "EKLAVYA" Fellowship for Post-graduate studies.

Academic distinctions

- Participated and completed PMMMNMTT, MHRD sponsored National Workshop on Curriculum Design and Development (ONLINE), organized by Centre for Curriculum Research, Policy and Enviornment Development at School of Education, Central University of Punjab, Bathinda, Punjab, from 21/07/2020 to 31/07/2020.
- Two weeks Faculty Development Program on "Managing Online Classes and Co-Creating MOOCs: 2.0" organized by Teaching Learning Centre, Ramanujan College, University of Delhi and sponsored by Ministry of Human Resource Development (MHRD) Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), New Delhi, from 18th May to 03rd June 2020.
- One week National Online Faculty Development Program on ICT Tools for Effective Teaching Learning organized by School of Mathematical Sciences, Swami Ramanand Teerth Marathwada University, Nanded.
- Refresher Course with "B" Grade, in the Department of Botany organized by UGC-HRDC, Savitribai Phule Pune University, Pune – 411 007 (16th August to 05th September 2018)
- Refresher Course with "B" Grade, in the Department of Zoology organized by Academic Staff College, Savitribai Phule Pune University, Pune – 411 007 (6th to 27th January 2015)
- **"Orientation Course"** with **"A"** Grade, Academic Staff College, Aligarh Muslim University, Aligarh, Uttar Pradesh (31st March 2013 to 27th April 2014).
- "48th Orientation Course", National Service Scheme (NSS) Empanelled Training Institute, sponsored by Govt of India, Ministry of Youth and Sports, New Delhi, Ahmednagar College, Ahmednagar (20th to 26th March 2014).
- **Two months Summer Training Project** at Mahyco Life Science Research Institute, Jalna, Maharashtra (May-June 2004).
- Four months project for the partial fulfilment of M.Sc. degree in Botany at Department of Botany, University of Pune, Pune (January-April 2005).

<u>General</u>

- Nationality: Indian
- **Date and Place of Birth:** 15th July 1983, Junnar, Maharashtra.
- Address for Correspondence: Department of Botany,

Shri Shiv Chhatrapati College of Arts, Commerce and Science,

Bodkenagar, Junnar, Pune – 411 007, Maharashtra, India.

Mobile No.: +91 7841994091 / 9011045087; Email: vhl1983@gmail.com

• Permanent Address: A/P – Barav, Junnar, Tal. Junnar, Dist. Pune, Pin – 410502.

Qualification

Education

SET

Qualified State Eligibility Test (SET) Examination in the subject Botany belongs to discipline Life Sciences.

Ph. D. (Botany)

Botany, June 2010, Department of Botany, University of Pune, Pune, Maharashtra.

M. Sc. (Botany)

Botany (Specialization: Plant Biotechnology), June 2005, **'A Grade**, **CGPA 7.35/10**' Department of Botany, University of Pune, Pune, Maharashtra.

B. Sc. (Botany)

Botany, June 2003, **75.92%** 'Ist class with distinction', Department of Botany, Annasaheb Awate College, Manchar, Pune, Maharashtra.

RESEARCH PROFILE

Number of Research Publications	= 27
Chapter published in International Book	= 01
Number of Text Books published	= 05
Total IMPACT FACTOR	= 52.85
Number of Citations	= 1016
h index	= 18
<i>i10</i> index	= 23
Highest IMPACT FACTOR	= 5.778 (Chemosphere Journal)

Papers published/accepted in the International Journals

- Lokhande VH, Patade VY, Srivastava S, Suprasanna P, Shrivastava M, Awasthi G (2020) Copper accumulation and biochemical responses of *Sesuvium portulacastrum* (L.). Materials Today: Proceedings 31(4):679-684.
- 2) Naikawadi VB, Ahire ML, Lokhande VH, Ghorpade RP and Nikam TD (January 2016) Morphological, biochemical and molecular characterization of *Evolvulus alsinoides* Linn.: A memory enhancing herb. Indian Journal of Biotechnology 15:48-56. (I.F. 0.413).

- 3) Lokhande VH, Kudale S, Nikalje G, Desai N, Suprasanna P (August 2015) Hairy root induction and phytoremediation of textile dye, Reactive green 19A-HE4BD, in a halophyte, Sesuvium portulacastrum (L.) L. Biotechnology Report, 8:56-63. (I.F. 4.47).
- 4) Srivastava AK, Srivastava S, Lokhande VH, D'Souza SF, Suprasanna P (March 2015) Salt stress reveals differential antioxidant and energetics responses in glycophytes (*Brassica juncea* L.) and halophyte (*Sesuvium portulacastrum* L.) Frontiers in Environmental Science 3(19): ---. DOI 10.3389/fenvs.2015.00019. (I.F. 2.749).
- 5) Kale RA, Lokhande VH, Ade AB (August 2014) Investigation of chromium phytoremediation and tolerance capacity of a weed, Portulaca oleracea L. in a hydroponic system. Water Environment Journal. (I.F. 1.426).
- 6) Ghane SG, Lokhande VH, Nikam TD (March 2014) Growth, Physiological, and Biochemical Responses in Relation to Salinity Tolerance for In VitroSelection in Oil Seed Crop *Guizotia abyssinica* Cass. Journal of Crop Science and Biotechnology 17(1): 11-20. DOI 10.1007/s12892-013-0084-8. (I.F. – 0.780).
- 7) Patade VY, Lokhande VH, Suprasanna P (August 2013) Exogenous application of proline alleviates salt induced oxidative stress more efficiently than glycine betaine in sugarcane cultured cells. Sugar tech. (I. F. – 1.422).
- Nikam TD, Ghorpade RP, Nitnawre KM, Ahire ML, Lokhande VH, Chopra A (January 2013) Micropropagation and non-steroidal anti-inflammatory and anti-arthritic agent boswellic acid production in callus cultures of *Boswellia serrata* Roxb. Physiology and Molecular Biology of Plants 19(1): 105-116. DOI 10.1007/s12298-012-0137-3. (I.F. 2.005).
- 9) Lokhande VH, Kor BK, Desai NS, Nikam TD, Suprasanna P (October 2012) Sesuvium portulacastrum, a plant for drought, salt stress, sand fixation, food and phytoremediation. A review. Agronomy for sustainable development. 33(2): 329-348. DOI 10.1007/s13593-012-0113-x. (I.F. 4.531)
- 10)Lokhande VH, Mulye KV, Patkar R, Nikam TD, Suprasanna P (September 2012) Biochemical and physiological adaptations of the halophyte Sesuvium portulacastrum (L.) L., (Aizoaceae) to salinity. Archives of Agronomy and Soil Sciences. DOI:10.1080/03650340.2012.712207 (I.F. Not applicable).
- Patil AV, Lokhande VH, Suprasanna P, Bapat VA, Jadhav JP (May 2012) Sesuvium portulacastrum (L.) L. : a potential halophyte for the degradation of toxic textile dye, Green HE4B. Planta 235(5): 1051-1063. DOI 10.1007/s00425-011-1556-z. (I.F. 3.361).
- **12)** Ghane SG, **Lokhande** VH, Nikam TD (2012) Differential growth, physiological and biochemical responses of niger (Guizotia abyssinicaCass.) cultivars to water-deficit

(drought) stress. Acta Physiologia Plantarum 34: 215-225. DOI 10.1007/s11738-011-0820-y. (I.F. 1.364).

- 13) Ahire ML, Lokhande VH, Kavi Kishore PB, Nikam TD (August 2012) Brinjal (Solanum melongenaLinn.) Varieties Accumulate both Na⁺ and K⁺ under Low NaCl Stress, but Excludes Na⁺ and Accumulate K⁺ under High Salt Levels. The Asian and Australasian Journal of Plant Science and Biotechnology pp 1-6.
- 14) Lokhande VH, Srivastava AK, Srivastava S, Nikam TD and Suprasanna P (November 2011) Regulated alterations in redox and energetic status are the key mediators of salinity tolerance in the halophyte *Sesuvium portulacastrum* (L.) L Plant Growth Regulation, 65(2):287-298. DOI: 10.1007/s10725-011-9600-3. (I.F. 2.646).
- 15) Jagtap UB, Waghmare SR, Lokhande VH, Suprasanna P, Bapat VA (November 2011) Preparation and evaluation of antioxidant capacity of Jackfruit (*Artocarpus heterophyllus* Lam.) wine and its protective role against radiation induced DNA damage. Industrial Crops and Products 34(3):1595-1601. DOI:10.1016/j.indcrop.2011.05.025 (I.F. 3.181).
- 16) Lokhande VH, Srivastava S, Patade VY, Dwivedi S, Tripathi RD, Nikam TD, Suprasanna P (January 2011) Investigation of arsenic accumulation and tolerance in Sesuvium portulacastrum (L.) L. Chemosphere 82(4):529-34. (I.F. 4.208).
- 17) Lokhande VH, Nikam TD, Patade VY, Ahire ML, Suprasanna P (January 2011) Effects of optimal and supra-optimal salinity stress on antioxidative defence, osmolytes and in vitro growth responses in *Sesuvium portulacastrum* L. Plant Cell Tissue and Organ Culture. 104:41-49 (I.F. 2.002).
- 18) Ahire ML, Ghane SG, Lokhande VH, Suprasanna P, Nikam TD (August 2011) Micropropagation of Uraria picta through adventitious bud regeneration and antimicrobial activity of callus. In Vitro Cellular Developmental Biology, 47(4): 488-495. DOI 10.1007/s11627-011-9362-7. (I.F. 1.024).
- 19) Lokhande VH, Nikam TD, Suprasanna P (October 2011) Prospective applications of biotechnological methods in salt accumulator halophyte Sesuvium portulacastrum (L.) L.
 BARC Newsletter Founder's day special issue, pp. 305-309.
- 20) Lokhande VH, Nikam TD, Suprasanna P (2010) Biochemical, physiological and growth changes in response to salinity in callus culture of *Sesuvium portulacastrum* L. Plant Cell Tissue and organ culture 102:17-25. (I.F. 2.002).
- 21) Lokhande VH, Nikam TD, Ghane SG, Suprasanna P (2010) Studies on the response of growth regulators for *in vitro* culture and clonal behaviour of six clones of a halophyte, *Sesuvium portulacastrum* L. Physiology and Molecular Biology of Plants 16 (2):187-193. (I.F. 0.883).

- 22) Lokhande VH, Nikam TD, Suprasanna P (2010) Differential osmotic adjustment to iso-osmotic salt and PEG stress in vitro in the halophyte Sesuvium portulacastrum L. Journal of Crop Science and Biotechnology 13(4):251-256. (I.F. Not available).
- 23) Chavan SP, Lokhande VH, Nitnaware KM, Nikam TD (March 2011) Influence of growth regulators and elicitors on cell growth and α-tocopherol and pigment productions in cell cultures of *Carthamus tinctorius* L. Applied Microbiology and Biotechnology 89(6): 1701-1707. (I.F. 3.420).
- Srivastava AK, Lokhande VH, Patade VY, Suprasnna P, Rinaldi S, SF D'Souza (2010) Comparative evaluation of hydro-, chemo- and hormonal- priming methods for imparting salt and PEG stress tolerance in Indian mustard (*Brassica juncea L.*) Acta Physiologia Plantarum 32:1135-1144. (I.F. 1.232).
- 25) Ghane SG, Lokhande VH, Ahire ML, Nikam TD (2010) *Indigofera glandulosa* Wendl. (Barbada) a potential source of nutritious food: underutilized and neglected legume in India. Genetic Resources and Crop Evolution 57: 147-153. (I.F. 1.294).
- 26) Lokhande VH, Nikam TD, Patade VY, Suprasanna P (2009) Morphological and molecular diversity analysis among the Indian clones of *Sesuvium portulacastrum* L. Genetic Resources and Crop Evolution 56: 705-717. (I.F. 1.294).
- 27) Lokhande VH, Nikam TD, Suprasanna P (2009) Sesuvium portulacastrum (L.) L. a promising halophyte: cultivation, utilization and distribution in India. Genetic Resources and Crop Evolution 56: 741-747. (I.F. 1.294).

Book chapter published in the International Book

 Lokhande VH and Suprasanna P (November 2012) Prospects of Halophytes in understanding and managing abiotic stress tolerance In: "Environmental adaptations and stress tolerance of plants in the era of climatic change" (ed) Parvaiz Ahmed and MNV Prasad, Springer, Germany. DOI 10.1007/978-1-4614-0815-4_2.

<u>Text Books in Botany, published for Undergraduate students as per new</u> <u>Choice based Credit System (CBCS) pattern of SPPU, Pune</u>

1. Botany (Paper III) Practical Handbook of Botany F.Y.B.Sc. (Sem. I & II) (2019) by Dr. Lokhande Vinayak Haribhau, Dr. Tuwar Ashok R, Dr. Sathe Sharayu, Dr. Avchar B K, Dr. Singh Neelima , Dr. Gavit A S, Dr. Abyankar Gauri. Publisher - Success Publications, Pune. ISBN: 978-93-89529-03-6.

2. Botany (Paper II) Principles of Plant Science, F.Y.B.Sc. (Sem. II) (2019) by Dr. Lokhande Vinayak H, Dr. Tuwar Ashok R, Dr. Avchar B K, Dr. Kale Suresh R, Dr. Pachore Manohar V,

Mr. Tuwar Dnyaneshwar A. Publisher - Success Publications, Pune. ISBN: 978-93-89739-27-5.

3. Botany (Paper II) Plant Physiology, S.Y.B.Sc. (Sem. III) (2020) by Dr. Lokhande Vinayak H, Dr. Tuwar Ashok R, Dr. Nehul J N, Dr. Kale Suresh R. Publisher - Success Publications, Pune. ISBN: 978-93-87020-55-9.

4. Botany (Paper I) Plant Anatomy and Embryology, SYBSC – Semester IV (BO – 241)", by Dr. Lokhande Vinayak H, Dr. Tuwar Ashok R., Dr. Nehul Janardan N., Dr. Aher D. K., and Dr. Ahire Dilip U. Publisher - Success Publications, Pune. ISBN: 978-93-24457-37-2

5. Botany (Paper II) Plant Biotechnology, S.Y.B.Sc. (Sem. IV) (2021) by Dr. Lokhande Vinayak H, Dr. Tuwar Ashok R., Dr. Barshile Jaganath D., Dr. Kale Suresh R., Dr. Avchar Bapu K. Publisher - Success Publications, Pune. ISBN: 978-93-24457-37-3.

Papers presented / participated in International / National Conferences / Symposia / Workshops

- Lokhande VH, Thorve SS, Inamdar SR, Teerth R, Pandey M, Radhakrishna P, Srivastava AK, Suprasanna P. Thiourea application enhances growth and source-tosink relationship under drought stress in Onion". In DAR-BRNS Life Sciences Symposium 2018 on "Frontiers in Sustainable Agriculture" organized by Bio-Science Group, Bhabha Atomic Research Centre (BARC), Trombay, Mumbai during 26-28 April 2018. (BEST POSTER PRESENTATION)
- Kale RA, Lokhande VH, Ade AB. Chelate assisted phytoextraction and accumulation of mercury by *Portulaca oleracea* L. grown in hydroponic system". In DAR-BRNS Life Sciences Symposium 2018 on "Frontiers in Sustainable Agriculture" organized by Bio-Science Group, Bhabha Atomic Research Centre (BARC), Trombay, Mumbai during 26-28 April 2018. (POSTER PRESENTATION)
- 3. Participated in A One Day Worksop on Framing of F.Y.B.Sc. Syllabus w.e.f. June 2013 at Radhabai Kale College, Ahemednagar on July 2013.
- Participated in A One Day Workshop on Framing of S.Y.B.Sc. Practical Syllabus w.e.f. on 11th July 2014 at Nowrosjee Wadia College, Pune.
- Lokhande VH, Srivastava S, Suprasanna P. Investigation of Copper induced biochemical responses of *Sesuvium portulacastrum* L. In: National Conference on Current prospects and challenges in Life Sciences (CPCLS-2013) held during 26-27th July 2013, New Arts, Commerce and Science College, Ahmednagar. (Poster presentation).

- Lokhande VH. Presented paper entitled "Application of halophytes for environmental pollution control for sustainable development" at National conference on "Current Trends in Life Sciences". October 26-28, 2013, Annasaheb Awate College, Manchar.
- Lokhande VH, Kudale S, Desai NS, Suprasanna P. Development of biotechnological strategies for degradation of toxic textile dye using hairy root cultures of *Sesuvium portulacastrum* L. In: DAE-BRNS Life Sciences Symposium 2012 (LSS 2012) on Trends in Plant, Agriculture and Food Sciences held during 17-19th December 2012. (Poster presentation).
- Bhosale SA, Lokhande VH, Pansare AS, Kale SS. Agro-morphological characterization of a potentially nutritious but neglected and underutilized pulse, *Vigna khandalensis* from Western Ghats. In: DAE-BRNS Life Sciences Symposium 2012 (LSS 2012) on Trends in Plant, Agriculture and Food Sciences held during 17-19th December 2012. (Poster presentation).
- Lokhande VH, Kudale S, Desai NS, Suprasanna P, Malpathak NP. "Agrobacterium rhizogenes mediated transformation of Sesuvium portulacastrum L. : an alternative source for phytoecdysteroid production". In: International Conference on Current Trends in Medicinal Plants Research held during 10-12th January 2012, Department of Botany, University of Pune, Pune – 411 007. (Poster presentation).
- 10. Lokhande VH. Remediation of polluted environment through the application of halophytes for sustainable development. National seminar on Recent Advances in Chemical and Environmental Science held on 10-12 Feb. 2012, Chemistry Department of Ramkrishna More arts Commerce and Science College Akurdi Pune-44. (Oral presentation).
- 11. Lokhande VH, Suprasanna P. Prospects of halophytes in understanding and managing abiotic stress tolerance. National Seminar on Plant Biodiversity for Sustainable Development held on 10-12 March 2011, Department of Botany, University of Pune, Pune – 411007. (Oral presentation).
- 12. Lokhande VH, Illa Sowjanya, Aivale Mayuri, Desai Neetin S. Growth, Physiological and Biochemical Responses of *Sesuvium portulacastrum* to Pharmaceutical Effluents. In: National Seminar on Sustainable Crop Productivity through Physiological Intervention held during 24-26 November 2011, Ramnarain Ruia College, Matunga, Mumbai-400019. (Oral presentation).
- Patil AV, Lokhande VH, Lokhande Suprasanna P, Bapat VA, Jadhav JP (2010). Sesuvium portulacastrum L.: A promising halophyte in the field of phytoremediation.
 XXXIII Conference of Indian Botanical Scociety and International Symposium on The

New Horizons of Botany. Department of Botany, Shivaji University, Kolhapur, India. November 10-12, 2010. (Poster presentation).

- Lokhande VH, Nikam TD, Suprasanna P. Awarded "BEST POSTER" in International Symposium on "Plant Biotechnology: A Global Scenario" November 2-4, 2010, Warangal, Andhra Pradesh.
- 15. Lokhande VH, Srivastava AK, Srivastava S, Nikam TD, Suprasanna P. Presented paper for the award of "YOUNG SCIENTIST" in National Conference on Frontiers in Plant Physiology Towards Sustainable Agriculture. Nov. 5-7, 2009, Jorhat, Assam.
- 16. Lokhande VH, Nikam TD, Suprasanna P. Presented paper for the award of "YOUNG SCIENTIST" in Golden Jubilee conference on Challenges and emerging strategies for improving crop productivity. November 12-14, 2008, New Delhi.
- 17. Ahire LM, Ghane SG, Lokhande VH, Suprasanna P, Nikam TD. Genetically stable shoot regeneration in leaf derived callus of *Uraria picta* (Jacq.) DC. National Conference on Frontiers in Plant Physiology Towards Sustainable Agriculture, AAU, November 5-7, 2009 Jorhat, Assam.
- 18. Lokhande VH, Nikam TD, Suprasanna P. Distribution and collection of Sesuvium portulacastrum (L.) L., clones along the coastal regions of India: its conservation, utilization and diversity analysis. National Symposium on Recent Global Developments in the Management of Plant Genetic Resources, NBPGR, IARI, December 17-18, 2009 ,New Delhi.
- Lokhande VH, Nikam TD, Patade VY, Rai AN, Suprasanna P. Studies on morphological and molecular diversity among the Indian clones of *Sesuvium portulacastrum* L. February 26-27, 2007, Department of Botany, University of Pune, Pune – 411 007.
- 20. Ghane SG, Lokhande VH, Ahire ML, Nikam TD. Agro-morphological characterization and tissue culture of underutilized and negleceted legume, *Indigofera glandulosa* Wendl. (Barbada): a potential source of nutritious food. National symposium on Recent Global Developments in the Management of Plant Genetic Resources. December 17-18, 2009, New Delhi.
- 21. Participated in BARC Golden Jubilee and DAE-BRNS Life Sciences symposium on "Trends in research and technologies in agriculture and food sciences". December 18-20, 2006, BARC, Mumbai – 400 094.
- 22. Attended one day seminar on '**Advances in Botany**' organized by the Department of Botany, Shri. Shiv Chhatrapati College, Junnar under the Quality Improvement Program of University of Pune. 4th February 2006.

23. Participated in National Seminar on "Recent Advances in Botany and Conservation of Biodiversity". 27th to 29th January 2006, Arts, Science and Commerce College, Hadapsar, Pune – 411 028.

Sequence submission to NCBI Gene Bank

GR209368.1 ACTIN 21 5- similar to populus actin mRNA, mRNA sequence. Lokhande VH, Patade VY, Nikam TD and Suprasanna P.