Vandana Hivrale
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Home Address: Professor Quarter-1, University campus, Dr. BAMU, Aurangabad-431005, MS,India
Date of Birth 03/04/1971

Education

1991	B.Sc	Microbiology/Botany/Chemistry	Dr.BAM University*, Aurangabad, India
1993	M.Sc	Biochemistry 3rd in Merit	Dr.BAM University*, Aurangabad, India
2004	Ph.D	Biochemistry**	Dr.BAM University*, Aurangabad, India

*Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra, India
****Title of the thesis:** Digestive enzymes of *Periplaneta americana*

Teaching/Research Experience

Place	Position	Period	Nature of work
Department of Biochemistry, Dr. B.A.M.University Aurangabad,MS, India	Research student	1996-2004	Research
Department of Biochemistry, Dr. B.A.M.University Aurangabad,MS, India	Assistant professor	1998-2007	Research and teaching
Max planck institute for chemical ecology, Jena, Germany	Post doctoral fellow	2006-2007	Research
Department of Biochemistry, Dr. B.A.M.University Aurangabad,MS, India	Associate professor	2007-to 2013	Research and teaching
Department of Biochemistry and Molecular biology, Oklahoma state University,	Post doctoral fellow	2013 -2014	Research

Stillwater, 74078-3034 Oklahoma, USA			
Department of Biochemistry, Warsaw University, Warsaw, Poland	Visiting faculty	2 weeks May 2016	Research and teaching
Department of Biochemistry, Warsaw University, Warsaw, Poland	Visiting faculty	2 months April-May-June 2017	Research
Department of Life Sciences, University of Algarve, Portugal	Visiting faculty	1 week May 2019	Research
University de Santiago , Santiago, Spain	Visiting faculty	1 week 4 November to 8 November	International collaboration
Brussels Belgium, CBHE meeting arranged by EU	Visiting faculty	1 week 25 Jan2020 to 31 Jan 2020	International collaboration
Department of Biochemistry, Dr. B.A.M.University Aurangabad,MS, India	Professor	2013 to till this date	Research and teaching

Honors and Awards

- Invited to attend meeting organized by European union on CBHE at Brussels, Belgium 25 Jan 2020 to 31st Jan 2020
- Received KA107 Erasmus + fellowship to visit at University of Santiago, spain (November 2019)

- Received Merging voices fellowship to visit at University of Algarve ,Faro, Portugal (May 2019)
- Received **Best Teacher** award from Rotary club of Aurangabad (2018).
- Received ERASMUS Euphrates fellowship to Visit at Warsaw University , Warsaw , Poland (May 2017)
- Received ERASMUS MUNDUS Plus fellowship to teach 2 weeks at Warsaw University , Warsaw , Poland (May 2016)
- Received '**Singh- Obama fellowship'** to work for one year at **Oklahoma state university, USA** (2013-2014)
- Received '**Post doctoral fellowship'** to work for nine months at Max planck institute for chemical ecology, Jena, **Germany (**2006-2007).
- Received '**Young scientist research grant** award from Department of Science and Technology, New Delhi, India (2008).

- Received '**Vidyapeeth Shikshak Pratibha'**(Best Teacher) award from Department of Mass Communication, Dr. BabasahebAmbedkarMarathwada University, Aurangabad (2007).
- Graphical abstract of a research paper selected for 'Cover Image' of the journal Pesticide Biochemistry and Physiology, Volume 105, Issue 2, Feb 2013

Research projects (Costs around 5 Crores)

Principle investigator/Co-investigator
Ongoing :

National

1) Department of Science and Technology, New Delhi, India funded major research project entitled, "Identification and characterization of Bt toxin receptors in the sucking pests for designing effective pest control strategy", **2019-2021.**

International projects

Setup 3 laboratories at BAMU (IQAC cell, Talent co-creation lab and International centre)

(Capacity Building program- sanctioned by European union---- Handling as a partner country project Coordinator)

1) **EQASA (Enhancing Quality Assurance in South Asian Universities) -** University of Pleoponnese, Greece (2017-2020) (with Partner Countries, Greece, Spain Italy, Nepal, Afganistan And India)
2) **INNOTAL (**Integrating Talent Development into Innovation Ecosystems in Higher Education) **University of Bulgaria, Bulgaria, (2018-2021) (With partner universities** 4 European Universities – from Bulgaria, Greece, Finland and the UK, 4 Universities from India, 2 Universities from Nepal, 2 Universities from Sri Lanka and 2 Universities from the Philippines.
3) **MERGE (Improving internationalization practices in south Asian higher education)(Italy, Spain, Rome Afganistan, Nepal, India) ..Ongoing**

Completed

- Department of Science and Technology, New Delhi, India funded major research project entitled, 'Identification and characterization of peptide and non-peptide inhibitors of RAS cascade from medicinal plants', 2008-2011.
- University Grants Commission, New Delhi, India funded major research project entitled, 'Molecular cloning and identification of novel plant amylase inhibitor for antibiosis against storage pests *Callosobruchus* and *Tribolium*', 2008-2010.

- Indian Council of Medical Research New Delhi, India funded major research project entitled, 'Peptide and Non peptide inhibitor of factor Xa and thrombin', 2006-2009.
- University Grants Commission, New Delhi, India funded major research project entitled, 'Evaluation and characterization of protease inhibitor proteins for antibiosis against *H. armigera,* the dreaded polyphagous pest of cotton, chickpea and pigeonpea', 2003-2005.
- University Grants Commission, New Delhi, India funded minor research project entitled, 'To investigate the small molecular weight plant proteinaceous and non proteinaceous inhibitors of enzymes involved in blood clotting', 2000-2002

Number of Ph.D. students

i. Awarded- 03
Ii. Persuing – 08

Administrative responsibility shared/sharing

i. Since 2015 working as a Head, Department of Biochemistry
ii. Since Feb 2018 working as a Director, Centre for International Relations
iii. Previously 3 times worked as a Warden for University girls hostel

Other activities

- Reviewer of manuscripts submitted to internationally reputed journals
- Worked as member/chairman of senate election/affiliation and selection committee at Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- Working as a Chairman of Adhoc borad, Biochemistry
- Member of syllabus/ admission committee for Master Degree in Biochemistry at Dr. BabasahebAmbedkarMarathwada University, Aurangabad.
- Worked as a member of local organizing committee for national conference organized by Department of Biotechnology, Osmanabad sub centre, Dr. Babasaheb Ambedkar Marathwada University, AurangabadMS, India.
- Worked as project evaluator for BCUD projects at SRT University, Nanded, MS, India.

Publications

Total impact factors<80, Citations<620 h index 19 i10 18

1. Ashwini Sirsath, Henna Nadaf, Katarzyna Swader and **Vandana Hivrale (2024)**X ray Film Gel Contact Print method for analyzing differential expression of plant protease inhibitors under abiotic stress,Methods in Molecular Biology 2832:233-240.
2. Heena Nadaf, ashwini k. Sirsat and **Vandana K. Hivrale (2022)**Biochemical characterization of α-amylases from differently feeding pests: sap-sucking Aphis craccivora and tissue chewing Pectinophor gossypiella. *International Journal of Tropical Insect Science* **https://doi.org/10.1007/s42690-022-00899-z**

3. Heena Nadaf, ashwini k. Sirsat and **Vandana K. Hivrale (2023)** Differential hikes in phenolic and flavonoid compounds in germinating soybean (Glycine max) seeds under abiotic stresses.Journal of Stress Physiology & Biochemistry, Vol. 19, No. 1, 2023, pp. 150-162 ISSN 1997-0838
4. Ashwini Jamdhade, Ramanjulu Sunkar **Vandana Hivrale (2017)** Zymographic method for distinguishing different classes of superoxide dismutases in plants,Methods in Molecular Biology 1631:221-227. DOI:10.1007/978-1-4939-7136-7_13
5. Yun Zheng, **Vandana Hivrale**, Xiaotuo Zhang, Babu Valliyodan, Christine Lelandais-Brière,Andrew D. Farmer, Gregory D. May, Martin Crespi, Henry T. Nguyen and Ramanjulu Sunkar **(2016)** Small RNA profiles in soybean primary root tips under water deficit **BMC systemic Biology Vol 10**,: 126 (2016) DOI 10.1186/s12918-016-0374-0
6. **Vandana Hivrale**., Yun Zheng.,Chandra Obula Reddy Puli., Guru Jagadeeswaran.,Gopal Kakani.,Abdelali Barakat and RamanjuluSunkar **(2016)** Characterization of drought- and heat-responsive microRNAs in switchgrass **Plan**t **Science, vol 242, 214-23.** doi:10.1016/j.plantsci.2015.07.018
7. Sangeeta Srivastava, Yun Zheng, HimabinduKudapa, Guru Jagadeeswaran, **Vandana Hivrale**, Rajeev Varshney and RamanjuluSunkar**(2015)** Highthroughput sequencing of small RNA component of leaves and inflorescence revealed conserved and novel miRNAs as well as phasiRNA loci in chickpea **Plan**t **Science Vol 235, 46–57**
8. **Lomate PR**, Sangole KP, Sunkar R, Hivrale VK, 2015. Superoxide dismutase activities in the midgut of *Helicoverpa armigera* larvae: identification and biochemical properties of a manganese superoxide dismutase***. Open Access Insect Physiology***, vol 5, 13-20.
9. Borde U.V.,**Hivrale V.K.** and Kachole M.S.**(2013)**Identification and purification and antimicrobial activity of alkaloid from Peganumharmale (L). medicinal Plant Journal of Biology, Agricultur**e** and HealthcareVol.3, No.19, 105-111.
10. Sanatan P.T. Lomate P.R. Giri. A.P. and **Hivrale V.K.(2013)** Characterization of a chemostable serine alkaline protease from ***Periplanetaamericana****BMC Biochemistry*, **14**:32 doi:10.1186/1471-2091-14-32
11. Lomate P.R. and**Hivrale V.K. (2013)** Effect of *Bacillus thuringiensis* (Bt) Cry1Ac toxin and protease inhibitor on growth and development of *Helicoverpa armigera* (Hübner).Pesticide Biochemistry and Physiology 105 (2): 77–83
12. **HivraleV.K.**.andLomate P.R**(2013)** Angiotensin converting enzyme (ACE) inhibitory potential of harmaline isolated from *Peganum harmala* L. seeds. Journal of Herbs, Spices &Medicinal Plants, 19(1): **48-53**
13. Lomate P.R. , BR Jadhav, AP Giri,and**Hivrale V.K. (2013)** Alterations in the *Helicoverpa armigera* midgut digestive physiology after ingestion of pigeon pea inducible leucineaminopeptidase (LAP). - PloS one, 2013 - dx.plos.org
14. **Hivrale V.K.,**Lomate P.R.,Bassayye S. N.andKalve N.D. **(2012)** Compensatory proteolytic responses to dietary proteinase inhibitors from Albizialebbeck seeds in the *Helicoverpaarmigera* larvae.Arthropod-PlantInteractions.**DOI 10.1007/s11829-012-9240-1**
15. Lomate P.R. and**Hivrale V.K. (2012)** Wound and methyl jasmonate induced pigeon pea defensive proteinase inhibitor has potency to inhibit insect digestive proteinases**.** Plant Physiology and Biochemistry, 57: 193-199.

16. Lomate P.R. and **Hivrale V.K.** (2011)Changes and induction of aminopeptidase activities in response to pathogen infection during germination of pigeonpea (*Cajanascajan*) seeds. Journal of Plant Physiology,168(15):1735-42.
17. Kalve N.D., Lomate P.R. and **Hivrale V.K.** (2011) A proteinaceous thermo labile α-amylase inhibitor from *Albizialebbeck* with inhibitory potential toward insect amylases. Journal of Biochemistry. Arthopod plant interaction, 5: 245-253.
18. Lomate P.R. and **Hivrale V.K.** (2011) Differential responses of midgut soluble aminopeptidases of *Helicoverpaarmigera* to feeding on various host and non-host plant diets. Arthropod Plant interactions, 5: 29-38.
19. **Hivrale V.K.,**Chougule N.P., Chhabda P.J., Giri A.P. and Kachole M.S. (2011) Biochemical characterization of α-amylase inhibitors from *Achyranthesaspera* and their interactions with digestive amylases of Coleopteran and Lepidopteran insects. Journal of Science of Food and Agriculture, 91, 1773-1780.
20. **Hivrale V.K.,**Lomate P.R., Kalve N.D. and Kachole M.S. (2011) *Periplaneta Americana* midgut proteases differentially expressed against dietary components from different plant seeds. Physiological Entomology,36, 180-186.
21. Lomate P.R. and **Hivrale V.K.(**2011**)**Induction of leucineaminopeptidase (LAP) with wounding and methyl jasmonate in pigeonpea (*Cajanuscajan*) provides insights into its role in plant defense in leguminosae**.** Plant Physiology and Biochemistry 49, 609-616.
22. Lomate P.R., Sanatan P.T., Kalve N.D. and **Hivrale V.K.** (2011) Characterization and applicability of digestive proteinase from hepatopancreas of *Barytelphusacunicularis*. Journal of food biotechnology, 25, 1-15.
23. Lomate P.R. and **Hivrale V.K.** (2010) Partial purification and characterization of *Helicoverpaarmigera* (Lepidoptera: Noctuidae) active aminopeptidase secreted in midgut. Comparative Biochemistry and Physiology, 155B, 164-170.
24. Mitra S., Wünsche H., Giri A.P., **Hivrale V.K.** and Baldwin I.T. (2008) Silencing 7 herbivory-regulated proteins in *Nicotiana attenuate* to understand their function in plant–herbivore interactions. Functional Ecology, 22, 606-615.
25. **Hivrale V.K.,**Chougule N.P., Chhabda P.J., Giri A.P. and Kachole M.S. (2005) Unraveling biochemical properties of cockroach (Periplanetaamericana) proteinases with a gel X-ray film contact print method. Comparative Biochemistry and Physiology B, 141, 261-266.
26. Chougule N.P., **Hivrale V.K.,**Chhabda P.J., Giri A.P. and Kachole M.S. (2004) Identification of amylase inhibitor deficient mutants in pigeonpea (*Cajanuscajan*(L.) Millisp.). Biochemical Genetics, 42, 165-180.
27. Chougule N.P., **Hivrale V.K.,**Chhabda P.J., Giri A.P. and Kachole M.S. (2003) Differential inhibition of Helicoverpaarmigera gut proteinases by proteinase inhibitors of pigeonpea (*Cajanuscajan*) and its wild relatives. Phytochemistry, 64, 681-687.

References

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