

## Profile

**DR. PRACHI PRAKASH PARVATIKAR- KULKARNI**

### **Educational Qualifications:**

<b>Sr No</b>	<b>Examination</b>	<b>University/ Board</b>	<b>Year</b>	<b>Percentage</b>	<b>Class</b>
1.	Ph.D (Bioinformatics)	Karnataka state Women's University	2019		
2.	M.Sc. (BIOTECHNOLOGY)	Karnataka	June'08	75.5%	1 <sup>st</sup> class with distinction
3	B.Sc. (BOTANY)	Pune	May'06	73.94%	1 <sup>st</sup> class with distinction
4	12th	Dept. of Pre-University Education Maharashtra.	March'03	54.00 %	Higher Second class
5	S.S.C.	Maharashtra Secondary Education Examination Board	March'01	66.00 %	1 <sup>st</sup> class

### **Additional Qualifications: -**

- Post Doctoral Fellow Laboratory of Vascular Physiology Dept of Physiology, BLDE (Deem to be university).

**Supervisor/Guide** : Prof Kusal K Das.

Laboratory of Vascular Physiology

Dept of Physiology, BLDE (Deem to be university)

**Title of Post Doctoral study** : Neuroprotective effect of bioactive compound from Mucuna Purines (Velvet Bean) by *invitro* and *insilico* study.

### **Area of Research**

Research focuses on the Computational Drug Design and Structural Bioinformatics approaches of various therapeutic targets various diseases. Mainly concentrate on the development of novel therapeutics from basic research to the molecular level for the study of interactive small molecule inhibitors with the biological targets along with exploration and designing of pharmacologically relevant molecules which can act as potent inhibitors of the various targets. Research includes

extensive in-silico approaches including Molecular Modelling, Structural Bioinformatics and Computational Biology etc.

### Technical Skills

**Bioinformatics:**

- Drug Discovery and their application in Biological system.
- Experience in designing novel chemical entities for various therapeutic areas and calculating interaction energies of the molecules within active site residues of biological targets.
- Experience of using Windows, LINUX, UNIX and Mac operating system. Experience in using other Molecular Modeling, Computational Chemistry and Bioinformatics software"s like , SYBYL 7.0, Discovery Studio, CCDc, GOLD, MOE, Cerius2, Insight II, TOPKAT, CHEM-X, Bio Suite, GCG, SCHRODINGER Software, AMBER, GROMACS, Marvin Suit, Modeller, AUTODOCK etc.
- Experience in using visualization software like PyMol, PDB Viewer, Rasmol, NOC, MOLDEN, MOLEKEL, Chimera, VMD etc.
- Knowledge of biological databases and development.
- Experience of EMBOSS, BLAST, CLUSTAL X/Wetc.

**Biochemistry**

- Protein estimation, Enzyme assay, Chromatographic techniques (Paper and TLC),
- Electrophoresis techniques, FTIR analysis, Phytochemistry, Colorimetric, spectrophotometric

**Biotechnology**

- Proficient practical knowledge in basic molecular biology.
- Cancer biology, microbiology, including, antimicrobial assay, PCR, SDS- PAGE, cancer cell line development and maintaince, cytotoxic assay etc .

### Research and Teaching Experience

Designation	Name of Employer	Period		Responsible Held
		From	To	

PDF Supervisor : Prof Kusal K Das	Shri B.M. Patil Medical College, BLDE University	03June 2020	Till Date	Working on computational analysis and invivo analysis of neurological disorders, and COVID
Guest Faculty (Full Time)	Post graduate center of Bioinformatics and Biotechnology Karnataka Sate Akkamahadevi Women's University, Vijayapur, Karnataka, India	18/08/2019	30/05/2020	Handled Bioinformatics, Environment Biotechnology, Microbiology and Plant Biotechnology subjects and guided PG students projects
Guest Faculty (PartTime)	Post graduate center of Bioinformatics and Biotechnology Karnataka Sate Akkamahadevi Women's University, Vijayapur, Karnataka, India	16/05/2016	30/05/2019	Handled Bioinformatics, Environment Biotechnology, Microbiology, Biochemistry and Plant Biotechnology subjects and guided PG students projects
Guest Faculty (Full Time)	Post graduate center of Bioinformatics and Biotechnology Karnataka Sate Akkamahadevi Women's University, Vijayapur, Karnataka, India	24/08/2015	15/05/2020	Handled Bioinformatics, Environment Biotechnology, Microbiology and Plant Biotechnology subjects and guided PG students projects
Guest Faculty (Full Time)	A.S. Inamdar Degree College Vijayapur	01/02/2015	30/07/2015	Handled Botany, Environment Biotechnology, and Plant Biotechnology subjects and guided UG students projects

Guest Faculty	Sharadha Paramedical College, Yadagiri, Karnataka, India	01/06/2011	31/10/2012	Handled Microbiology and Biochemistry subjects
Research Associate	Maratha Mandal Dental College, Belgavi, Karnataka, India	01/11/2009	30/11/2010	Molecular Biology, cancer Biology, and Microbiology

### Research Supervisor

Programme of study	Completed
PG	09
UG/Other	02

### Conference/ Workshop Organizer

Designation	Title	Organized at	Sponsors
Organizing Committee member and moderator	UNESCO/UNITWIN Network Web Seminar 2020 Current concepts of Environmental Pollution by Electromagnetic field and Corona Virus	Shri B.M. Patil Medical College, BLDE University, India	UNESCO/UNITWIN Network
Organizing Committee member	Two Work Shop on “Recent trends in Physics and Nanotechnology” 2019	Karnataka Sate Akkamahadevi Women’s University, Vijayapur, Karnataka,	Higher Education Board, Karnataka Govt.
Organizing Committee member	Two Work Shop on “Life of Bhaskaracharya”2017	Karnataka Sate Akkamahadevi Women’s University, Vijayapur, Karnataka,	Bhaskaracharya Peetha, Karnataka Government

### Research Paper Published

1.Sequence analysis and structural characterization of Tissue transglutaminase(TG2) by *insilico* approach (2017). International Journal of Pharmacy and Pharmaceutical Sciences, Vol 9, Issue 10, 2017.

2. Preliminary phytochemical analysis and biological screening of *Indigofera hocheletteri* (2018). Prachi P Parvatikar and SB Madagi. **The Pharma Innovation Journal 2018; 7(3): 503-505.**
3. Book Chapter – “Bioethanol production from agricultural waste via enzymatic waste”. **ISSN no- 978-613-9-86339-6. Lambert academic publishing**
4. Book Chapter – “Phytochemical and pharmacological screening of *Indigofera hocheletteri*”. **ISSN no - 978-613-9-87480-4. Lambert academic publishing.**
5. Madagi, S. B., & Parvatikar, P. P. (2018). Docking Studies On Phytochemical Derivatives As Tissue Transglutaminase-2 (TG2) Inhibitors Against Lung Cancer. In *Proceedings of the World Congress on Engineering and Computer Science* (Vol. 1)..ISBN 978-988-14048 and ISSN 2078-0958.
6. Book Chapter- Parvatikar, P. P., & Madagi, S. B. (2018, October). Molecular Docking Analysis: Interaction Studies of Natural Compounds with Human TG2 Protein. In *The World Congress on Engineering and Computer Science* (pp. 101-111). Springer, Singapore. [https://doi.org/10.1007/978-981-15-6848-0\\_9](https://doi.org/10.1007/978-981-15-6848-0_9)
7. Parvatikar P. & Madagi S (2019). A quantitative predictive modelling for inhibition of transglutaminase-2 using penalized regression approach. *RJLBPCS journal* 5(1)627. (E- ISSN 2454-6348) **IF- 0.869.**
8. Bhagirathi Halalli, Vinay Kumar V and Prachi Parvatikar. “Role of Artificial Intelligence in Detection of COVID-19 : A Review”, *Journal of Science and Technology*- Accepted.
9. Prachi Parvatikar, Bhagirathi Hallali, Joy Hoskeri, Deepakkumar Chavan, Kusal Das “Proteochemometric (PCM) modelling: A machine learning technique for drug designing” *Proceeding in International Conference on AI and soft computing.*
10. Bhagirathi Hallali, Chandrakal K, Prachi Parvatikar “Artificial intelligence for cancer imaging: A review” *Proceeding in International Conference on AI and soft computing*

### Workshop/ Conference

#### Conference

1. “*Insilico* identification and characterization of TG2 protein.” Abstract published as conference proceedings in national conference on computer science and information technology, on 3<sup>rd</sup> to 4<sup>th</sup> March 2017 organized by Department of computer science, Karnataka state women’s university.
2. Poster presentation, “Sequence analysis of TG2 protein by *insilico* approach.” Abstract published as conference proceedings in national conference on enterpurnership in biotechnology, on 23<sup>rd</sup> to 24<sup>th</sup> March 2017 organized by Department of Biotechnology, Sir M.V.IT College, Bangalore.
5. *Insilico* analysis of mitogen-activated protein kinase (MAPK-1) protein

4. Presented research paper in 2 days National seminar organized by Department of Bioinformatics Sri Venkateshwara Institute of Medical Sciences, Tirupati (14 and 15 March 2018). On the topic “Docking studies on phytochemical derivatives as Tissue transglutaminase-2 (TG2) inhibitors against lung cancer”.

8. Presented research paper in UNESCO/UNITWIN Network Web Seminar 2020 “Current concepts of Environmental Pollution by Electromagnetic field and Corona Virus”

9. Presented paper in International Conference on AI and Soft computing 2021 Organized by Dept of Computer Science, KSAWU, Vijayapura.

### **Workshop**

1. Attended 10 days workshop from 21-31 August 2017. on “” from 7<sup>th</sup> to 9<sup>th</sup> November 2016. organized by Department of Community Medicine, Shri B.M. Patil Medical college, Hospital and research center, Vijayapur.

2. Attended one talk on “Development of QSAR model” by Dr.R.V. Kulkarni organized by College of Pharmacy, B.L.D.E’A College Vijayapura.

3. Attended 10 days workshop from 21-31 August 2017. on “Bioinformatics workshop on genomics, proteomics, drug discovery and high performance computing”. Jointly organized by Department of supercomputing and bioinformatics, Indian Institute of Technology, Dehli.

4. Attended one day workshop on Next generation sequence analysis organized by Bengaluru Genomics Center.

### **Resource Person**

1. Delivered one day lecture and hands on training organized by Anjuman Degree college on 10 March 2017.

2. Delivered a special lecture and demo on “Working of gel electrophoresis”. Organized by Department of Botany, S.B.Arts and K.C.P. Science College, Vijayapur.

3. 3 month training on “Advance techniques in bioinformatics” during period of 1 Nov 2017 to 31 Jan 2018.

4. Molecular docking in the International online workshop on COVID genomics organized by Bengaluru genomics centre.

### **Membership**

1. Life Membership - Society for Biotechnologists (India)
2. Life Membership – Indian Science Congress (India)
3. Life Membership - IAENG (China) (238170)

## Personal Details

<b>Nationality</b>	Indian
<b>Marital Status</b>	Married.
<b>Languages Known</b>	English, Hindi, Marathi, Kannada
<b>Contact</b>	“Nagnath Niketan”, Chalukya Nagar (W), Behind H.D.F.C. bank, Solapur road. Vijayapur, Karnataka- 586103.
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