NAME

Affiliation
Lt. Dr. Prasanna D.R
Associate Professor & Associate NCC officer
Department of Biotechnology
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Education

	Degree	**Year**	**Institute**	**Specialization**
1	Ph.D	2014 to 2018	Indian Institute of Technology Madras, Chennai. Tamil Nadu	Computational Biology
2	M.Tech	2006 to 2008	SASTRA University, Tanjavur, Tamil Nadu	Bioinformatics
3	B.E.	2002 to 2006	Visvesvaraya Technological University, GMIT, Davanagere, Karnataka.	Biotechnology

Professional Experience

	Date (from-to)	Designation	Organization
1	27-09-2024 to till date	Associate Professor	Siddaganga Institute of Technology, Tumkur-572103, Karnataka, India
2	06-06-2008 to 27-09-2024	Assistant Professor	Siddaganga Institute of Technology, Tumkur-572103, Karnataka, India
3	01-02-2009 to till date	Commissioned Associate NCC officer	5/4 SIT Coy (Army), 4 Karnataka Bn NCC, Tumkur-572103, Karnataka, India

Positions held

- Institutional Biosafety Committee member.
- BOE member in Biotechnology Board at VTU, Belagavi, 2024-2025

- BOS member, BOE member, DPEC convener, DSEC convener, Department Strategic plan committee convener, NBA coordinator, Test Coordinator etc.
- Consultant for Theomics International Private Limited, and Biostica Services Pvt. Limited, Bengaluru, Karnataka
- Associate NCC officer of 5/4 SIT Coy (Army)
- Departmental AICTE activity points committee member.
- Faculty coordinator for various events in Spandana and Halcyon etc at Institute level.

Affiliations of Professional organizations

- 5/4 SIT Coy (Army), 4 Karnataka Bn NCC, Tumkur-572103, Karnataka, India, Siddaganga Institute of Technology, Tumkur
- Indian Society of Chemists and Biologists (ISCB), Life Member.
- Society for Promotion of Horticulture (SPH) life member.

Awards and Honors

- Invited as session technical session chair at JAIVIK a technical fest of GMIT, Davanagere.
- Awardee of "Rajya Puraskar" under "Bharath Scouts and Guides".
- Awardee of "President's award" under "Bharath Scouts and Guides".
- Awardee of BRONZE MEDAL in officers' training academy, Kamptee, Nagpur, Maharashtra, for showing and holding the First position in the Pre-commission course of National Cadet Corps
- Given the Lieutenant position by the National Cadet Corps after completing the PRCN course, which is equivalent to Lieutenant Officers of the Indian Army.
- Awardee of the Chief Minister Commendation card for showing excellent service in NCC.
- Several Best poster awards in conferences.

Courses Taught

Undergraduate Courses

1. Molecular biology
2. Genetics
3. Biochemistry
4. Bioinformatics
5. Health Diagnostics
6. Computer aided drug design
7. Biosensors and Instrumentation
8. Nano- biotechnology
9. Environmental Biotechnology
10. Biomolecular Simulations

11. Enzyme Technology
12. Bioethics and Bio-safety
13. Essentials of NCC
14. Bioprocess Control and Automation

Postgraduate Courses (PG Diploma Course in Bioinformatics and rational drug design sanctioned by IT, BT, S & T Govt.of Karnataka)
1. Bioinformatics

Research Guidance

Sl. no	Name of the Scholar	Title	Year of completion
01	Bharathi M	Revolutionizing heart health : Small molecule inhibitors to combat Atherosclerotic plaque by reducing cholesteryl ester supply through Cholesteryl ester transfer protein	Pursuing PhD
02	Rudraradhya U	Prophylaxis drug delivery to donor corneal endothelium to enhance the success of corneal transplantation.	Pursuing PhD

Research Areas

- Molecular Dynamics Simulations.
- Steered Molecular Dynamics Simulations.
- Replica exchange simulations.
- QM/MM simulations.
- Deep learning for Genomics.
- Genomics data analysis.

Sponsored Projects

Completed Projects:

1. **Title:** Unraveling a new strategy of Inhibition of Cholesteryl ester transfer protein by small molecule inhibitor through site directed mutagenesis and molecular dynamics simulation studies
   Funding Agency: VGST-CISEE, Government of Karnataka.
   Amount: Rs. 25,00,000 /- (Rs. Twenty five lakhs only)
   Duration: 2 Years (2021-2023)
   Role: Principal Investigator.

Publications

Journals

- **Prasanna D Revanasiddappa**, Shiva Prasad Kollur, Dr. Gowtham HG, Suchithra Gangadhar, G L Basavaraj, Murali M, Chandan Shivamallu, Raghu Ram Achar, Ekaterina Silina, Victor Stupin, Natalia Manturova, Ali A Shati, Mohammad Y Alfaifi, Serag Eldin I. Elbehairi and Kestur Nagaraj Amruthesh "Exploration of Type III effector Xanthomonas outer protein Q (XopQ) inhibitor from Picrasma quassioides as an antibacterial agent using chemoinformatics analysis" PLOS ONE (2024) https://doi.org/10.1371/journal. pone.0302105 (**Q1, IF:3.752**). (Publication with UG Students)

- **Prasanna D Revanasiddappa**, Gowtham HG, Chandana KP, Shilpa Natarajamurthy, Sushma Pradeep, Chandan Shivamallu, Gehan M Elossaily, Raghu Ram Achar, Ekaterina Silina, Victor Stupin, Natalia Manturova, Ali A Shati, Mohammad Y Alfaifi, Serag Eldin I Elbehairi, Amruthesh Kestur Nagaraj, Murali Mahadevamurthy, Shiva Prasad Kollur. "Computational exploration of Picrasma quassioides compounds as CviR-mediated quorum sensing inhibitors against Chromobacterium violaceum" Frontiers in Chemistry (2024) Front. Chem.12:1286675.doi: 10.3389/fchem.2024.1286675 **(Q1, IF: 5.5)** (Publication with UG Students)

- H.G. Gowtham., **Prasanna D. Revanasiddappa**., Mahadevamurthy Murali., Sudarshana Brijesh Singh., M.R. Abhilash., Sushma Pradeep., Chandan Shivamallu., Raghu Ram Achar., Ekaterina Silina., Victor Stupin., Natalia Manturova., Ali A. Shati., Mohammad Y. Alfaifi., Serag Eldin I. Elbehairi.. and Shiva Prasad K. "Secondary metabolites of Trichoderma spp. as EGFR tyrosine kinase inhibitors: Evaluation of anticancer efficacy through Computational Approach" PLOS one (2024), 1-20, https://doi. org/10.1371/journal.pone.0296010 **(Q1, IF: 3.752)**

- **Prasanna D Revanasiddappa,** "Structural insights on the deformations induced by various mutations on Cholesteryl ester transfer protein" Biophysical Chemistry (2023), 301, https://doi.org/10.1016/j.bpc.2023.107093 ,**(Q2, IF: 3.628)** (Single Author)

- Amrutha K , **Prasanna D Revanasiddappa** (Corresponding Author), Sneha M. D and Gandasi R P. "Bound Phospholipids assist Cholesteryl Ester transfer in Cholesteryl Ester Transfer Protein" Journal of Chemical Information and Modeling (2023) 63, 10, 3054–3067 **(Q1, IF: 6.612)** (Publication with UG Students)

- Balakumaran S, Evangeline A Dl, Samdani A, Bennett H E, Sameer H, **Prasanna D. Revanasiddappa,** Amrutha K, Sujata R, Umashankar V and Luke E Hanna. "Structural Analysis and Molecular Dynamics Simulation studies of HIV-1 Antisense Protein (ASP) pre- dicts its potential role in HIV replication and pathogenesis"

Frontiers in Microbiology, 14, (2023) **(Q1, IF: 4.076)** (Publication with UG Students)

- Sindhu D. B, Mohd Ahsan, and **Prasanna D. Revanasiddappa** (Corresponding Author), "Structural Insights On Antiparallel G-Quadruplex in the presence of K+ and Mg2+ Ions" Journal of physical chemistry B, 127, 7, 1499–1512 (2023) **(Q1, IF: 3.466)** on 01/02/2023. (Publication with UG Students)

- Praveen Kumar P.K, Ashwini D. B, Priyadharshini A, Dharani A. S, Sivanandham M, Amrutha K and **Prasanna D Revanasidappa.** "Molecular docking and simulation binding analysis of Boeravinone B with Caspase-3 and EGFR of Hepatocellular carcinoma" Letters in Drug Design & Discovery 19, (2022) **(Q3, IF: 1.15)** (Publication with UG Students)

- Chinmai P, Venkat R. C, Mohd Rahman, Mohd Ahsan, **Prasanna D. Revanasiddappa,** and Sanjib Senapati. "Molecular Basis of Differential Stability and Temperature Sensitivity of ZIKA versus Dengue Virus Protein Shells." Scientific Reports 10, no. 1 (2020): 1-10. **(Q1, IF: 4.996)**

- Praveen P. K., Sekar D.,Udhayachandran A., Mobashir I., Chirag Gowda., **Prasanna D. Revanasiddappa.** " T-cell Epitope-based Vaccine Design for Nipah Virus by Reverse Vacci- nology Approach" Combinatorial Chemistry and High Throughput Screening, (2020), 23:1. **(Q3, IF: 1.205)** (Publication with UG Students)

- Bhavya S. G, Sharath R, **Prasanna D. Revanasiddappa** (Corresponding Author), Vivek C, Meenakshisundaram B, and Teja P V. "Structural insights of metallo-beta-lactamase revealed an effective way of inhibition of enzyme by natural inhibitors." Journal of Biomolecular Structure and Dynamics (2019): 1-15. **(Q2, IF: 3.392)**

- **Prasanna D Revanasiddappa,**., Revathi Sankar, and Sanjib Senapati. "Role of the bound phospholipids in the structural stability of cholesteryl ester transfer protein." The Journal of Physical Chemistry B 122, no. 15 (2018): 4239-4248. **(Q1, IF: 3.466)**

- Venkat R. C., **Prasanna D. Revanasiddappa,** and Sanjib Senapati. "Structural plasticity of cholesteryl ester transfer protein assists the lipid transfer activity." Journal of Biological Chemistry 291, no. 37 (2016): 19462-19473. **(Q1, IF: 5.486)**

Editor/ Reviewer of Journal

Reviewer of Journals

1. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology: Publisher: Elsevier Inc.
2. BioNanoScience: Publisher: Springer Science + Business Media

3. Journal of Applied Biology & Biotechnology: Publisher: Open Science Publishers LLP Inc.

Patents

Patent Filed: 1

Invited Lectures, talks, and workshops

Invited Talks

- Invited as Guest to deliver a talk on "Bioinformatics and its applications" at PESCE, Bangalore
- Invited as Guest to deliver a talk on "Computer aided drug design" at Department of PG studies, Tumkur university, Tumkur.
- Invited as Guest to deliver a talk on "Molecular Docking and Molecular dynamics simulation" at Department of Biotechnology, SDM college, Ujire.
- Invited as Guest to deliver a talk on "Molecular dynamics simulations and its applications" at Department of Biotechnology, MSRIT, Bangalore.

Workshops Organized

- National level workshop on "Quantum Mechanics, Molecular Mechanics and Meta-dynamics".
- Departmental level workshop on "Hands on HPLC, PCR and Z-scan"

Consultancy services

- Technical Consultant at Biostika Services Pvt. Ltd, Bengaluru, Karnataka
- Technical Consultant at Sri Venkateshwara College of Engineering, Chennai, Tamil Nadu

Internship/Hands-on training

- Molecular Dynamics Simulations
- Steered Molecular Dynamics Simulations
- QM/MM hybrid simulations
- Coarse grain simulation
- NGS data analysis
- Genomic data analysis