CHIRANJEEVI PASALA, Ph.D.

Postdoctoral Research Scholar,

Chemical Biology Program, Mortimer B. Zuckerman Research Center,
Lab. No: Z-2119, 417 East 68th Street, New York, NY 10065.
Memorial Sloan Kettering Cancer Center (MSKCC),
New York, USA
Email: chiranjeevipasala099@gmail.com; pasalac@mskcc.org

OBJECTIVE: To obtain a position where I can effectively apply my research experience as well as develop and expand my knowledge and career further.

RESEARCH EXPERIENCE:

- Postdoctoral Research Scholar (Computational Biology), Memorial Sloan Kettering Cancer Center (MSKCC), New York, USA — 06/2022 - present
- Scientist-II (Bioinformatics), Computational Genomics Centre at AIIMS, ICMR Head Quarters, New Delhi, India — 02/2022 - 05/2022
- Senior Research Fellow, ICAR-NBAIR, Bangalore, Karnataka — 07/2021 – 02/2022
- Research Associate-I, Indian Institute of Chemical Biology (CSIR- IICB), Kolkata, West Bengal — 01/2021 – 04/2021
- ICMR-JRF & SRF, Department of Bioinformatics, SVIMS University, Andhra Pradesh — 09/2014 – 09/2019
- DBT-Project Trainee, BIF Centre, Sri Venkateswara Institute of - Medical Sciences (SVIMS), Tirupati, A.P. — 10/2013 – 04/2014

AWARDS AND FELLOWSHIPS:

[1]. Junior Research Fellowship (ICMR-JRF) in Life Sciences (National Level), by ICMR, Govt. of India — 09/2014 – 11/2016

[2]. Senior Research Fellowship (ICMR-JRF) in Life Sciences (National Level), by ICMR, Govt. of India — 11/2016 – 11/2019

[3]. Secured All India Rank 59 under Lectureship, Joint-CSIR-UGC (NET) — 12/2013

[4]. Joint UGC–CSIR-NET (Lectureship, Life sciences, Rank: 62) — 12/2012

[5]. Qualified Andhra Pradesh State Eligibility Test (APSET-2012) for Assistant Professor/ Lectureship — 2012

[6]. Secured All India Rank 1831 and Score is 300 in Graduate Aptitude Test in Engineering (GATE-2012) and 2011, 2010 in Life sciences. — 2012

[7]. International Travel Award: 01

Awarded International travel grant (DST-SERB, ITS/2019/001997) under "Young scientist program", Department of Science and Technology (DST), Government of India, to present at "International Conference of Albany 2019: The 20th Conversation", Departments of Chemistry and Biological Sciences, State University of New York at Albany, New York, USA.

[8]. Best Poster/ Oral Awards: 06 (First author: 01, Co-author: 05)

Chiranjeevi P. et al. Common target-based inhibitor design with integration of computational Core Hopping, multitier docking and dynamic simulations against *H. pylori* strains was presented, published, and awarded as Best Poster in 7th National seminar on Bioinformatics organized by Department of Bioinformatics, SVIMS University, Tirupati, 14th -15th March 2018.

To refer (as Co-author): https://svimsbic.org/achievements.html

EDUCATIONAL QUALIFICATIONS:

- **Ph.D. Bioinformatics,** Sri Venkateswara Institute of Medical Sciences, Tirupati, A.P. 2014 - 2020

  Thesis: "Computer aided approach to identify drug targets, vaccine candidates and potent lead molecules against gastrointestinal pathogen Helicobacter pylori"

- **M.Sc.** Bioinformatics, Sri Venkateswara University, Tirupati, India, Outstanding 2008 – 2010

  Project: "Study of T- lymphocytes CD2 receptor like protein in African swine fever Virus".

- **B.Sc.** Biotechnology, SGS Degree College, Tirupati, Grade-I 2005 - 2008
- **Intermediate** (Bi.P.C), SV Junior College, Tirupati, A.P., Grade-I 2003 - 2005
- **S.S.C.,** Z.P High School, Tiruchanoor, A.P, India, Outstanding Grade-I 2002 - 2003

TEACHING EXPERIENCE:

- 2014-2019 (05 Years): Bioinformatics, Computer aided drug designing, Omics Science and Technology, Sequence analysis, Microbiology, Medical informatics in SVIMS University.
- 2019-2020 (06 Months): Guest Faculty for Bioinformatics in SMPVV University.

TRAINING PROGRAMS:

- Hands on training on "NGS sample preparation and Data analysis" held at Institute of Bioinformatics and Applied Biotechnology (IBAB), Bengaluru, India.
- Training Program: Training on "Integrative Modeling and dynamics of Macromolecular RNA Structures" held at Molecular Biophysics Unit, IISc Bangalore, organized by Indian Institute of Science and Indian Academy of Sciences.
- Training Program: on Biochemical Techniques at Sugen-Life sciences laboratory, Tirupati

SKILLS ACQUIRED

Bioinformatics and Computational Biology:

- Molecular modeling, Dynamics simulations (Schrodinger LLC, Desmond, GROMACS and AMBER Tools) and Drug design
- Computational Antibody Engineering
- Experience in NGS data analysis (RNA-Seq, WGS, metagenomics).
- Knowledge on statistical analysis and data visualization with R. Programming knowledge in Python, bash shell scripting
- QSAR (WEKA, QSAR Toolbox)
- Comparative protein structure modeling (Modeller, AlphaFold2)
- Molecular docking and visualization (AutoDock, Autodock Vina, PyRx, PyMol)
- Data Analysis using R, Python, Numpy, Pandas
- Machine Learning and Deep Learning using R and PyTorch
- Linux-based tools for Phylogenetics (HMMER, MEGA, MAFFT, TrimAl, RAxML, HyPhy, FigTree and so on)
- Working Platform: Linux (Workstation/ HPC) and Windows
- **Statistical software**: R, SPSS, SigmaPlot, MS-Excel

Scientific Member:

- SBCI (Society of Biological Chemists, India)
- ISCA (Indian Science Congress Association)

Wet Lab Skills: Molecular biological techniques

- Electrophoretic techniques
- Blotting Techniques
- Isolation purification of DNA, RNA & Proteins

- **Extra-scientific/ academic activities and Certificates:**

  - National Cadet Corps **(NCC) – 'C' (**2008**), 'B' (**2007**)** and **'A' (**2003**)** Certificates
  - National Service Scheme **(NSS) -**2005
  - **Swatch Bharath–**SVIMS
  - **Committee Member-Institute Convocation** (SVIMS).

- **LIST OF PUBLICATIONS:**

Research Articles:

- Katari SK, **Pasala C**, Nalamolu RM, Bitla AR, Umamaheswari A. In silico trials to design potent inhibitors against matrilysin (MMP-7). J Biomol Struct Dyn. 2021, 18:1-12.
- Nagalakshmamma V, Venkataswamy M, **Pasala C**, Uma Maheswari A, Thyaga Raju K, Nagaraju C, Chalapathi PV. A study on MAPK/ERK and CDK2-Cyclin-E signal switch "on and off" in cell proliferation by bis urea derivatives of 1, 4-Diisocyanatobenzene. Bioorg Chem. 2021, 112:104940.
- Vadabingi N, Mallepogu V, **Pasala C**, Amineni U, Kedam T, Chamarthi N, Ponne V.C. Design, Synthesis, anti-tobacco mosaic viral and molecule docking simulations of Urea/Thiourea derivatives of 2-(piperazine-1-yl)-pyrimidine and 1-(4-Fluoro/4-Chloro phenyl)-piperazine and 1-(4-Chloro phenyl)-piperazine-A study, Bioorganic Chemistry. 2020, 104084, ISSN 0045-2068.
- Kodidela S, Shaik FB, Chinta V, Mohammad SA, **Pasala C**, Mittameedi CM, Maddu N, Wudayagiri R, Nallanchakravarthula V. Possible ameliorative role of green tea on chronic alcohol mediated renal toxicity of STZ -induced diabetic rats, Clinical Nutrition Experimental, 2020, 34:1-25.
- **Pasala C**, Chilamakuri CSR, Katari SK, Nalamolu RM, Bitla AR, Umamaheswari A. An *in silico* study: Novel targets for potential drug and vaccine design against drug resistant *H. pylori*. Microb Pathog. 2018, 122:156-161.
- **Pasala C**, Chilamakuri CSR, Katari SK, Nalamolu RM, Bitla AR, Amineni U. Epitope- driven common subunit vaccine design against *H. pylori* strains. J Biomol Struct Dyn. 2019, 37(14):3740-3750.
- **Pasala C**, Katari, SK, Nalamolu, RM, Bitla AR, Umamaheswari A. Hierarchical- clustering, scaffold-mining exercises, and dynamics simulations for effectual inhibitors against Lipid-A biosynthesis of *Helicobacter pylori*. Cel. Mol. Bioeng. 2019, 12 (3):255–274.
- **Pasala C**, Katari SK, Nalamolu RM, Bitla AR, Amineni U. In silico probing exercises, bioactive-

conformational and dynamic simulations strategies for designing and promoting selective therapeutics against *Helicobacter pylori* strains. J Mol Graph Model. 2019, 92:167-179.

- **Pasala C**, Katari SK, Nalamolu RM, Aparna RB, Alexander SP, Amineni U. Integration of binding potency estimations and stability assessments for therapeutic design against MurG of *H. pylori*. J Biomol Struct Dyn. 2019, 37(supplement 1):34-35.
- **Pasala C**, Katari SK, Nalamolu RM, Aparna RB, Amineni U. Integration of core hopping, quantum-mechanics, molecular mechanics coupled binding-energy estimations and dynamic simulations for fragment-based novel therapeutic scaffolds against *Helicobacter pylori* strains. Comput Biol Chem. 2019, 83:107126.
- **Chiranjeevi P**, Sandeep S, Pradeep N, Hema K, Sudheer Kumar K, Ravina Madhulitha N and Umamaheswari A. Inhibitor Design for VacA Toxin of *Helicobacter pylori*. Journal of Proteomics & Bioinformatics. 2016, 9(9):220-225.
- Satuluri SH, Katari SK, **Pasala C**, Amineni U. Novel and potent inhibitors for dihydropteroate synthase of *Helicobacter pylori*. J Recept Signal Transduct Res. 2020, 40(3):246-256.
- Sudheer Kumar K., **Chiranjeevi P**., Ravina Madhulitha N., Umakanth Naik V and Umamaheswari A. Potent MMP-14 antagonist design through screening, docking and dynamics studies. J Biomol Struct Dyn. 2019, 37(supplement 1): 40- 42.
- Ravina Madhulitha N., Sudheer Kumar K., **Chiranjeevi P**., SivaRanjani P and Umamaheswari A. Identification of potential inhibitors for AroG against *Mycobacterium tuberculosis*. Journal of Biomolecular Structure and Dynamics. 2019, 37(supplement 1): 29-30.
- Sivaranjani P., Umakanth Naik V., RavinaMadhulitha N., Sudheer Kumar K., **Chiranjeevi P**., Sharon priya Alexander and Umamaheswari A. Design of Novel Antimycobacterial Molecule Targeting Shikimate Pathway of M. tuberculosis. Indian Journal of Pharmaceutical Sciences. 2019, 81(3): 438-447.
- Ravina Madhulitha N., **Chiranjeevi P**., Sudheer Kumar K and Umamaheswari A. Discovery of common putative drug targets and vaccine candidates for *Mycobacterium tuberculosis*. Journal of Drug Delivery and Therapeutics. 2019, 9(2-s): 67-71.
- Ravina Madhulitha N., Pradeep N., Sandeep S., Hema K., **Chiranjeevi P**., Sudheer Kumar K and Umamaheswari A. E-Pharmacophore Model Assisted Discovery of Novel Antagonists of nNOS. Biochemistry and Analytical Biochemistry. 2017, 6(1): 1-9.
- Ravina Madhulitha N., Sushmitha N., **Chiranjeevi P** and Umamaheswari A (2016) Identification of novel antagonists for DNA processing chain A (DprA) of H. influenza. International Journal of Computational science, Mathematics and Engineering - Special Issue on Computational Science, Mathematics and Biology. IJCSME-SCSMB-16-Mar ch - 2016.
- Katari SK, Natarajan P, Swargam S, Kanipakam H, **Pasala C**, Umamaheswari A. Inhibitor

design against JNK1 through e-pharmacophore modeling docking and molecular dynamics simulations. J Recept Signal Transduct Res. 2016, 36(6):558-571.

- Sivakumari N., **Chiranjeevi P**., Pradhan D., Umamaheswari A. Discovery of Potent Inhibitors against GTP Pyrophosphokinase of Neisseria meningitidis Serogroup B. International Journal of Scientific and Engineering Research. 2015, 6(2): 273-278.
- Hema K., Vani Priyadarshini I., Sandeep S., Pradeep N., **Chiranjeevi P**. and Umamaheswari A. Subunit vaccine design against pathogens causing atherosclerosis. J Biomol Struct Dyn. 2015, 33 (supplement 1):135-136.

Review Articles:

1. **Pasala C**, Katari SK, Nalamolu RM, Alexander SP, Vankadoth UN, Pakala SR, et al. Lipopolysaccharide: An indispensable source for potential targets and therapeutic design against Gram-negative bacteria. J Clin Sci Res 2021; 10:233-9.
2. Katari SK, **Pasala C**, Nalamolu RM, Vankadoth UN, Alexander SP, Pakala SR, Bitla AR, Umamaheswari A. Pathophysiology of matrix metalloproteinases in breast cancer progression. J Clin Sci Res 2019; 8:145-50.