Faculty Profile of Dr. S. Usha

Dr. S. Usha
Assistant Professor
Department of Bioinformatics

Email:usha@buc.edu.in

Phone No:422 2428286

Mobile No:76396 81276

Research Area

- Computational Drug Discovery
- Bioprogramming
- Structural Bioinformatics
- Tool Development

Education & Career

Education

Ph.D.,
Subject: Bioinformatics
Institution: Bharathidasan University
Affiliated University: Bharathidasan University
Year of Award: 2015

M.Phil.,
Subject: Bioinformatics
Institution: Bharathidasan University
Affiliated University: Bharathidasan University
Year of Award: 2008

M.Sc.,
Subject: Bioinformatics
Institution: Annamalai University
Affiliated University: Annamalai University
Year of Award: 2006

B.Sc.,
Subject: Biochemistry
Institution: University of Madras
Affiliated University: University of Madras
Year of Award: 1999

Career

At Bharathiar University (Reverse Order)
Assistant Professor: November 2016 to Till Date

Awards

Awarding agency: Nature Science Foundation, Coimbatore
Country: India
Purpose of award: Best Women Faculty Award for Academic Excellence
Year of Award: August-2018

Memberships

Accordion content 2.

Projects

Research Guidance

- POST-DOC
- Ph.D.
- M.PHIL.
- PG

Tab 1 Content

ONGOING

Buvaneshwari P. J.
Title of the Thesis : Computer aided drug discovery
Year of Award:2017

Sakthivel M.
Title of the Thesis :Effects of various pollutants on cell signaling and toxicity – An in silico and in vitro approach
Year of Award:2020

AWARDED

Accordion content 2.

Tab 3 Content

ONGOING

Name of the candidate: Vishnu M
Title of the Dissertation: Pharmacophore-based virtual screening,docking,electronic strucuture analysis and moleculer dynamics simulation of oxazole [4,5] quinazoline 2(1H)-one derivatives as ESGR inhibitor
Year of awarded: Ongoing

Name of the candidate: Vishnupriya H
Title of the Dissertation: Computational simulations of Nor A efflux pump

in *Staphylococcus aureus*
Year of awarded: Ongoing

Name of the candidate: Aneesha P. J.
Title of the Dissertation: Discovery of drug for diabetes mellitus-a network pharmacology approach
Year of awarded: Ongoing

AWARDED

Name of the candidate: S. Angalaeswari
Title of the Dissertation: Pharmacophore based virtual screening *of Plasmodium Falciparum* phenylalanyl –tRNA synthetase inhibitors and prediction of their drug likeness properties as antimlarial leads
Year of awarded: April-2017

Name of the candidate: R. Keerthiga
Title of the Dissertation: Molecular Interaction of Triclosan with Human Metabolic Enzymes- An IN-Silico toxicology study
Year of awarded: April- 2019

Name of the candidate: G. Nandhini
Title of the Dissertation: Environmental Exposure of Triclosan may affect epigenetic mechanisms- An In-silico support through molecular interaction studies
Year of awarded: April- 2019

Name of the candidate: P. Uthaya Prakash
Title of the Dissertation: Phylogeny analysis and structure prediction of pathogenesis related proteins (PR-5) in Solanaceae family
Year of awarded: April- 2019

Research Publication

- International

- National
- Patents
- Conferences
- Books/Chapters
- DataBase

2021

2019 - 2013

1. Structure-wise discrimination of cytosine, thymine, and uracil by proteins in
   terms of their nonbonded interactions
   Usha S., & Selvaraj S
   Journal of Biomolecular Structure and Dynamics, 2013

2. Structure-wise discrimination of adenine and guanine by proteins on the basis of their
   nonbonded interactions
   Usha S., & Selvaraj S
   Journal of Biomolecular Structure and Dynamics 2014

3. Prediction of kinase-inhibitor binding affinity using energetic parameters
   Usha S., & Selvaraj S
   Bioinformation

4. Structural discrimination of purines and pyrimidines by proteins through water-mediated contacts
   Usha S., & Saravanan K. M
   Usha S
   International Journal of Pharma and Bio Sciences

5. Pharmacophore-based database searching of kinase-inhibitor mimetic molecular hits

Usha S
Journal of Bio Innovation

6. Environmental endocrine disrupting chemicals (EDCs) and its systems level
toxicological mechanisms – An Environmental health study
Manivannan J., & Usha S.
Life Science Archives (LSA)

7. Importance of fluctuating amino acid residues in folding and binding of proteins
Senthil R., Usha S., & Saravanan K.M
Avicenna Journal of Medical Biotechnology

8. Structure-based drug design of Peroxisome Proliferator Activated Receptor gamma inhibitors:
Ferulic acid and derivatives
Senthil R., Sakthivel M., & Usha S
Journal of Biomolecular Structure and Dynamics

Tab 2 Content
Tab 3 Content
Tab 4 Content

Books

1. Life Science: Research, Practices and Application for Sustainable Development
Usha S
MacMillan Publishers, New Delhi, India, 2017

Chapters

1. Insilico studies for the discovery of leads to inhibit Cyclin-dependent kinase 2(CDK2)In:

Advances in studies on Enzyme Inhibitors as Drugs.Volume 1: Anticancer and Antiviral Drugs
Usha S.
Nova Science Publishers, 2017

2. Advancements in the Discovery of Novel Anmalarial Leads–A Comprehensive Overview of in vitro,
in vivo and in silico Approaches In: Recent Advances in Biotechnology
Usha S.
Shree Publishers & Distributors, New Delhi, 2017

3. Toxicological mechanisms of environmental disruptor compounds apigenin and genistein
A molecular pathway approach In: Life Science: Research, Practices and Application for
Sustainable Development (Eds.)
Usha S.
MacMillan Publishers, New Delhi, India, 2017

4. Kinase targets in cancer drug discovery. In: Drug development for cancer and diabetes
Usha S.
Apple Academic Press (CRC press), USA , 2019

Tab 6 Content

Alumini Reflections: