Dr. Sweta Tripathi- Ph.D. Cancer Research Bioinformatics

Public Health Professional with Three years of post-PhD expertise in public health and research areas of genomics, microarray data analysis, and proteomics. Aiming for challenging job opportunities with an organization of high repute in Public Health Genomics/ Computational Biology/Research.

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Key Skills

Data analysis: The ability to analyze and interpret large datasets, including next-generation sequencing and microarray data

Database development: Experience in developing and maintaining databases, such as the Glioblastoma Target Expression Database

Research skills: Expertise in conducting research, including meta-analysis, phylogenetic analysis, docking study, and disorder study

Cultural competence and diversity awareness

Emergency preparedness and response

Effective communication and interpersonal skills

Program evaluation and monitoring

Ability to analyze and interpret health data

Project management and leadership

Research methodology and critical thinking

Global health and infectious diseases control

Environmental health and sustainability

Soft Skills

Communicator

Innovator

Thinker

Collaborator

Intuitive

Profile Summary

- I am an experienced public health professional with a bioinformatics and cancer informatics research background. Currently, I work as a Lecturer in COP Lab (Bio, Geo, and Chemoinformatic) at MG Science Institute and as a visiting faculty in Biochemistry, MATLAB, and Bioinformatics courses at Parul and S.P. University.
- In my previous role as a Ph.D. researcher, I conducted an in-depth study of differential gene expressions in Glioblastoma Homo Sapiens samples using a meta-analysis approach by R language. Additionally, I have experience working as a project assistant at the Institute of Life Sciences, Ahmedabad University, where I worked on developing a database linking FFDA-approved drugs and target proteins.
- I possess excellent leadership, communication, organizational, public speaking, and mentoring skills. I am proficient in various computer software used in routine professional work, including Windows Operating System, Access, Microsoft Excel, Word, Power Point, and different analysis packages for microarray data analysis study and data mining. I also have a basic knowledge of MATLAB.
- My research interests include cancer informatics, microarray analysis, meta-analysis, interactome analysis, phylogenetic analysis, docking study, and disorder study.

Core Competencies

Bioinformatics: Array Express, GEO dataset browser, Interactome network analysis, STRINGDB, Gene Cards, Cytoscape, GenBank searching: BLAST, multiple sequence alignments protein Sequence tool.

Leadership: Exceptional communication, organizational, public speaking, and mentoring Skills.

Computer skills: Window Operating System –Access, Microsoft Excel, Word, PowerPoint, and Different analysis packages for microarray data analysis study, data mining, etc) Working skills with PC. Basic Knowledge of MATLAB.

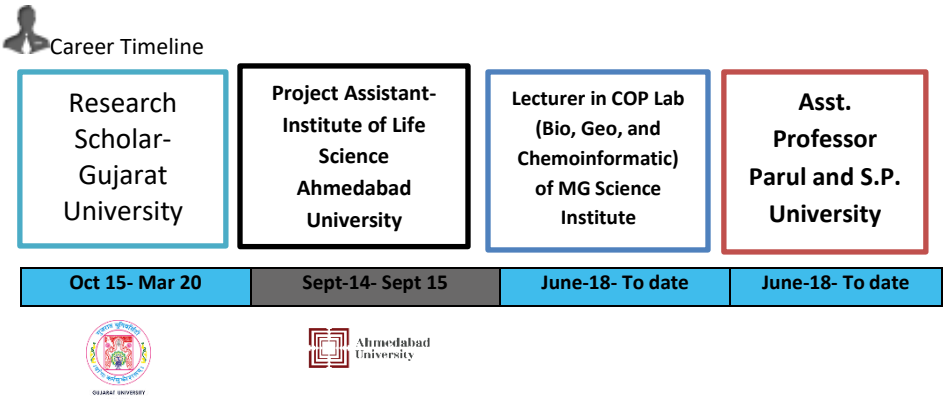
Research Interests (Past and Present)

- Cancer Informatics
- Microarray analysis
- Meta-analysis
- Interactome analysis
- Phylogenetic Analysis
- Docking study
- Disorder study
- Database Development

Education

Ph.D. (Cancer Informatics, Doctoral, Degree Awarded),
University School of Sciences, Gujarat University Ahmedabad, India-2020
M.Phil. (Master of Philosopher in Bioinformatics),
University School of Sciences, Gujarat University Ahmedabad, India-2015
M.Sc. (Master of Science in Bioinformatics),
University School of Sciences, Gujarat University Ahmedabad, India-2012
B.Sc. (Bachelor of Science in Biotany),
University School of Sciences, Gujarat University Ahmedabad, India-2010

Career Timeline



Work Experience

Research Experience
Present Research Involvement

Jul 2018 – to July 2019: M.G. Science Institute, Gujarat University

- I am currently working as a Lecturer in COP Lab (Bio, Geo, and Chemoinformatic) of MG Science Institute since July 2018.
  - Sept 2018 – to the Date: Institute of Applied Sciences, Parul University.
- I am currently also working as visiting faculty as in Biochemistry, MATLAB,
  - Bioinformatics courses at Parul and S.P. University.

Oct 2015 – to March 2020: Cancer Informatics Research Experience (Ph.D. work)

- Glioblastoma Homo Sapiens 4500 samples .CEL files were retrieved from Array Express and GEO Dataset browser.
- Study of differential gene expressions using a meta-analysis approach by R language.
- Study of differentially expressed genes by Interactome and Pathways
- Enrichment Analysis
- Developed of Glioblastoma Target Expression Database

Sept 2014 – to Sept 2015: Project Assistant, Institute of Life Sciences, Ahmedabad University

- I am working as a project assistant in the area of Bioinformatics at the Institute of Life Sciences, Ahmedabad University Since September 2013 till present. At the Institute of Life Science, I am working on the Development of a database linking FDA- approved drugs and target proteins. I also work on the next-generation sequence and microarray data analysis.

Oct 2011 – to Mar 2012: Post Graduation work, Sant Kabir Institute of Professional Sciences, Ahmedabad

- Original work on “Evaluation of Differential Gene Expression for Alzheimer’s Disease Using Microarray Analysis” Which is useful for further drug prediction for Alzheimer’s disease.

Dec 2009 – to Feb 2010: Graduation work, C.U. Shah Science College, Gujarat University

- I Worked on “mushroom cultivation and extraction of niacin [vit. B3] N on hydroponics plants” i.e. – through this vit.B3 heart attack patients got better benefits & the Cholesterol level got decreased from the vein. The hydroponic technique gave us to grow every plant according to us.

Notable Accomplishments Across the Career

Publication related to Ph.D. work.

1. Sweta P Tripathi, Vinal Upadhyay, Himanshu A. Pandya, Rakesh M Rawal. Meta-Analysis of Differentially Expressed Genes In Glioblastoma Stem Cells Using Microarray Datasets. Research Journal of Life Sciences, Bioinformatics, Pharmaceuticals, And Chemical Sciences. 2018Oct;4(5):522.
2. Sweta P Tripathi, Vinal Upadhyay, Himanshu A. Pandya, Rakesh M Rawal, Meta-analysis Of Differentially Expressed Genes In Glioblastoma Based On Microarray Data, International Journal Of Scientific Research: Volume-6 | Issue7 | July-2017

Publication related to other work.

1. Kumari Rashmi, Sweta P. Tripathi, Dr. Rakesh M. Rawal. Exploring Inhibitory Potential of Ginger Against Numerous Targets of Diverse Forms of Cancer. Research Journal Of Life Sciences, Bioinformatics, Pharmaceuticals, and Chemical Sciences. 2018Oct.
2. Tripathi, Sweta Kumari; Pandya, Himanshu A. Discovery Of Novel Gene Biomarker For Acute Myeloid Leukemia Through Differential Gene Expression Analysis. Annals Of Applied Bio-Sciences 2016 Mar; 3:94-100. ISSN-2349-6991
3. Book: Sweta Tripathi, Himanshu A. Pandya, and Ravi Gor Microarray Analysis on Alzheimer's Disease: An Approach Towards Gene Expression Study Using R Language and Bioconductor. ISSN: 978-3-659-17375-2 By Lambert Academic Publishing Germany.

Awards/Prizes

- Participated and won second prize in a poster presentation on Integrating Genoproteomics approach to identify potential drug targets for Glioblastoma in "National Conference on New Horizons in Cancer Biology" organized by Gujarat Cancer Research Institute (16th– 17th March 2018).
- Participate and won the BEST POSTER award in a poster presentation on "Identification of potential key genes, miRNAs and pathways associated with glioblastoma using meta-analysis approach" organized by at Directorate of Research and Innovation (DRI), Nirma University, Ahmedabad (14th–15th September 2018).
- Awarded with Certificate for Excellence in the first position at C. U. Shah Science College in S.Y.B.Sc (March-2009).
- Awarded with Certificate in computing with "A" Grade at Aptech Computer classes (March-2009).
- Got the Gold medal in S.Y.B.Sc. From C.U. Shah Science College June-2009.
- Participated and won 1st prize in a poster presentation on "CULTIVATION AND EXTRACTION OF VIT.B3" in National level Science Excellence poster presentation organized by the Gujarat University, Ahmedabad at Department of Botany, University School of Science, Gujarat University, Ahmedabad on "CULTIVATION AND EXTRACTION OF VIT.B3" (December- 2010).
- Participated and won 2nd prize in a poster presentation on "Next Generation Sequencing" at National Symposium on "Evolving Paradigm to Improve Productivity from Dynamic Plant Genetic resources" organized by Department of Botany,
- University School of Sciences, Gujarat University, Ahmedabad (13th to 15th October2011).
- Participated and won 2nd prize in a poster presentation on "Evaluation of Differential Gene Expression in Alzheimers Disease Using Microarray Analysis" in XXVII Gujarat Science Congress organized by Charotar University of Science and Technology and Gujarat Academy (24th February 2013).
- Participated and won Young Scientist Award in a poster presentation on "F3 Polysaccharides functional Genomics and Network-based study on Cancer cell: Network Analysis, Pathways Identification and Target Identification" in National Seminar on "Strategies to Understand Sustainable Utilization of Plant Wealth (SUSUP-2014)" organized by Department of Botany, University School of Sciences, Gujarat University, Ahmedabad (29th - 30th September 2014).

Training

- Hand-on training on "Web Development Using PHP and MySQL" organized by Gujarat University Botanicals Society (GUBS), Department of Botany, Bioinformatics and Climate Change Impacts Management, University School of Sciences, Gujarat University, Ahmedabad (10th – 13th October 2018).
- Attended ICAR-sponsored short course on "Metagenomics: Role of Next Generation Sequencing and Bioinformatics" organized by the Department of Animal Biotechnology, College of Veterinary Science and Animal Husbandry, Anand Agricultural University (9th – 18th February 2016).
- Advanced training on BIO-COMPUTATIONAL STATISTICS organized by Applied Botany Centre, Department of Botany, University School of Science, Gujarat University, Ahmedabad (20th to 25th June 2011).
- Experience as a project assistant at the Institute of Life Sciences, Ahmedabad University, and Ahmedabad (8th Sept 2013 to 8th September 2014).

References

1. Prof. (Dr.) Himanshu A. Pandya (M.Sc. and M. Phil Mentor)
Vice-Chancellor, Gujarat University, Ahmedabad-380009, India
Professor Department of Botany, Bioinformatics and Climate Change Impacts Management DST-FIST Sponsored Department
Ph: +91 79 26302578
Email: himanshuapandya@gujaratuniversity.ac.in
2. Dr. Rakesh M. Rawal, (PhD mentor)
Professor, at Department of Life Sciences, University School of Sciences, Gujarat University, Ahmedabad- 380 009. Gujarat, INDIA.
Email: rakeshmrawal@gujaratuniversity.ac.in
3. Dr. Uppala Radha Krishna
Director at William Beaumont Hospital, 3601 W 13 Mile Rd., Royal Oak, Michigan, United States.
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Personal Details

Date of Birth: 16 September 1990
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