Faculty CV

Name

Dr. Manjari Kiran

Designation

Assistant Professor

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Profile photo (1 photo upto 10 MB)

Manjari_Kiran - ...

Add File

Links of Personal webpage/Google scholar/LinkedIn etc.

https://scholar.google.com/citations?user=KBmsOl8AAAAJ&hl=en
https://www.linkedin.com/in/manjari-kiran-22b07466/
https://x.com/manjkira564

Broad areas of research (only keywords)

Cancer Genomics, non-coding RNAs, Epitranscriptomics, Computational Systems Biology

Professional Experience

Dr. Manjari Kiran is a computational biologist. She uses publicly available biological data to address fundamental questions in biology and generate data based models. She did her PhD with Prof. H. A. Nagarajaram at CDFD, Hyderabad. In her PhD, she proposed a novel dichotomy of highly connected proteins (Global and Local hubs) using human tissue-specific protein-protein interaction network.(Kiran and Nagarajaram, 2013, Journal of Proteome Res; Kiran and Nagarajaram, 2016, Mol Biosystems).

After that she went on to work as research associate with Prof. Anindya Dutta, University of Virginia. There she identified a set of 8 long non-coding RNAs (UVa-8) whose combined expression can predict survival in glioma patients (Kiran et al, 2018, Mol Neurobiology). Her work on prostate cancer specific tRNA-derived fragments as a prognostic marker and their role in prostate cancer metastasis was funded by Department of Defense (DoD) for two years of postdoctoral training. Apart from these, she has worked on several collaborative projects involving novel long non-coding RNAs (lncRNAs) in cancers (CYTOR and DRAIC) and muscle differentiation (MUNC) (Reon et al, 2018,Mol Can Res; Cichewicz et al, 2018, Mol Cel Bio; Saha et al, 2020, Cancer Res, Kuscu et al, 2018, RNA) and mapping of human origin of replication (Shibata et al, 2016, eLife).

Education/Training

Dec 2018 – Present: Assistant Professor, Department of Systems and Computational Biology, School of Life Sciences, University of Hyderabad
July 2016 – Nov 2018: Department of Defense Postdoctoral Award Fellow, Department of Biochemistry and Molecular Genetics, University of Virginia, Charlottesville
September 2014 – June 2016: Research Associate, Department of Biochemistry and Molecular Genetics, University of Virginia, Charlottesville

EDUCATION:

Jan 2009 to Sep 2014: Ph.D. in Computational Biology from Centre for DNA Fingerprinting and Diagnostics, Manipal University, Hyderabad, India.
2006-2008: Masters in Bioinformatics from Banaras Hindu University (BHU), India
2003-2006: Bachelors in Zoology (Hons.) with Botany and Chemistry from BHU, India

Detailed research interests (Upto 2 paragraphs or 10 bullet points)

The overarching goal of my research is to characterize various types of non-coding RNAs and understand the role of RNA modifications in their transcript complexity, translation (if possible), splicing and regulation. The group is also involved in developing user-friendly, publicly available scientific tools for next-generation sequencing data analysis, bioinformatics prediction, and computational characterization of molecular players in human health and disease.

Selected publications (upto 5)

1. Dey Anubha, Mudunuri Suresh, Kiran, Manjari*. (2024), MAGICAL: A multi-class classifier to predict synthetic lethal and viable interactions using protein-protein interaction network. PLoS Computational Biology 20 (8), e1012336. Corresponding Author

2. Basu Koushiki., Dey Anubha., Kiran, Manjari*. (2024), CaTCH: Calculating transcript complexity of human genes, MethodX, 12, 102697, Corresponding Author

3. Basu Koushiki., Dey Anubha., Kiran, Manjari*. (2023), Inefficient splicing of long non-coding RNAs is associated with higher transcript complexity, RNA Biology, 20,1,563-572. Corresponding Author

4. Kiran, Manjari., Chatrath, Ajay., Tang, Xiwei., Keenan, Daniel Macrae., Dutta, Anindya., (2019) , A prognostic signature for lower grade gliomas based on expression of long non-coding RNAs , Molecular Neurobiology, Springer US,56,7,4786-4798.

5. Kiran, Manjari., Nagarajaram, Hampapathalu Adimurthy., (2013) , Global versus local hubs in human protein–protein interaction network , Journal of Proteome Research, American Chemical Society,12,12,5436-5446.

Selected projects (upto 5)

2024: Role of RNA modification in the regulation of lncRNA-encoded microproteins and their potential applications in cancer therapy, ASPIRE - Council of Scientific & Industrial Research

2022: A multi-omics and multi-label approach to predict genetic interactions in cancer,
University of Hyderabad – Research Call 2 - Institute of Eminence

2022: DBT-Centre for Microbial Informatics at the University of Hyderabad, DBT-BTISNET - Department of Biotechnology

2020: Integrative approach to characterize human long non-coding RNAs, Early Career Grant - Department of Science and Technology - Science and Engineering Research Board

2020: Identification of gender-specific prognostic genes in 27 human cancers, Start-up Grant - University Grant Commission

Selected patents (a paragraph or upto 5 bullet points)

None

Current PhD scholars and broad research topics

Ms. Anubha Dey : Towards understanding of genetic interactions in cancers
Mr. Amardeep Lokhande: Role of RNA modification in regulation of lncRNA encoded micro protein
Mr. Shirshanya Roy: Identification of super-enhancer transcribed RNAs in Glioblastoma.