## Dr. Mekala Venugopala Reddy

GitHub: <u>https://github.com/venu887</u> Video: <u>https://drive.google.com/file/d/1KkfAhDQe3PdXR-omW9RdhoV9raKH\_\_1E/view</u> ORCID: https://orcid.org/0000-0001-7193-3682

#### Google Scholar:

https://scholar.google.com/citations?user=OUqbRI0AAAAJ&hl=en&citsig=AMD79orkYlTfjedRONJUcZ OnPn5ZrwGAig

#### **EDUCATION:**

- 1. Ph.D: Department of Bioinformatics and medical engineering, Asia University- July 2022.
- **2.** Master's in pharmacy (Pharmacology): Andhra University College of Pharmaceutical Sciences (Division of Pharmacology), year of graduation was 2017 (Percentage-71.5).
- **3.** Bachelor's in Pharmacy, Raghu College of Pharmacy affiliated to Andhra University, Dakkamarri, year of graduation was 2013 (Percentage-70.40%).

## **AREAS OF RESEARCH INTEREST:**

Bioinformatics, statistical and computational methods, clinical and translational research methodology, Cancer Biology, Whole-genome or exome-sequencing, Transcriptomics (bulk, small or single-cell RNA-seq, Differentially expressions, Survival), Epigenetics, Statistical models, and machine learning, multi-OMICs data analysis, Computational Methodologies, Computational Molecular Biology, and Clinical Trials.

## **PUBLICATIONS:**

- Hsueh-Chuan Liu, Ka-Lok Ng, Venugopala Reddy Mekala, Chien-Hung Huang, "TMMGdb -Tumor Metastasis Mechanism-associated Gene Database". (<u>http://hmg.asia.edu.tw/TMMGdb/index.php</u>) (Accepted: Sep-2022).
- Tai-Yue Li, Venugopala Reddy Mekala, Ka-Lok Ng and Cheng-Fang Su, "Classification of Tumor Metastasis Data by Using Quantum kernel-based Algorithms". BIBE2022 Conference (Accepted: Sep-19,2022).
- Mekala Reddy Venugopala, Chiang Hui-Shan, Chang Jan-Gowth\*, Ng Ka-Lok\*, Identification of key prognosis-related microRNAs in early- and late-stage gynecological cancers based on TCGA data, Current Bioinformatics 2022; 17(Composing). https://dx.doi.org/10.2174/1574893617666220802154148.
- Mekala Reddy Venugopala, Chang Jan-Gowth and Ng Ka-Lok\*, Analysis of Novel Variants Associated with Three Human Ovarian Cancer Cell Lines, Current Bioinformatics 2022; 17(4). <u>https://dx.doi.org/10.2174/1574893617666220224105106</u>
- Dharmasoth Rama Devi, Ganga Rao Battu, Venu Gopal Reddy Mekala, Chandi Vishala, Polimati Haritha, K. Basavaiah, "Hapatoprotective Effect of Grewia Tiliaefolia Vahl Extracts On Wistar Albino Rats." Nat. Volatiles & Essent. Oils, 2021; 8(4): 16283-16297.
- 6. Efendi Zaenudin, Ezra Bernadus Wijaya, Eskezeia Yihunie Dessie, **Mekala Venugopala Reddy**, Jeffrey J.P. Tsai, Chien-Hung Huang, and Ka-Lok Ng, "A Parallel Algorithm to Generate

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Connected Network Motifs," IAENG International Journal of Computer Science, vol. 46, no.4, pp518-523, 2019.

- Bugata Lakshmi Sai Pratyusha, Prabhakar Pitta Venkata, Ananth Reddy Gundu, Rahman Mohammed Fazlur, Utkarsh A. Reddy, Jerald Mahesh Kumar, Venugopala Reddy Mekala, Sreedhar Bojja, and Mohammed Mahboob. "Acute and subacute oral toxicity of copper oxide nanoparticles in female albino Wistar rats." Journal of Applied Toxicology 39, no. 5 (2019): 702-716.
- 8. Dharmasoth Rama Devi, **Venugopalareddy Mekala** and B Ganga Rao. Pharmacognostic evaluation, fluorescence and TLC analysis of Peltophorum pterocarpum (Dc.) backer ex heyne leaves. International Journal of Herbal MedicineVol. 7, Issue 2, Part A (2019).
- Venugopala Reddy Mekala. "Anti-Diabetic activity of reported medical and aromatic plants: a review". World Journal of Pharmaceutical Research, Volume 7, Issue 07, 2019-2040. ISSN 2277–7105.
- Venugopala Reddy Mekala, Srinu P, Swathi P, Eswar Kumar K. "Effect of Aqueous Peel Extract of Prunus Dulcis on *in-vitro* antioxidant activity", e-ISSN:2278-3008, p-ISSN:2319-7676. Volume 13, Issue 1 Ver. V (Jan.-Feb.2018), PP 5157.

# THESIS TITLES:

<u>PhD dissertation title:</u> "Whole exome sequencing for identification and Analysis of novel variants in ovarian cancer cell lines".

**PhD Summary**: I have collected three different stages of cell lines and performed NGS analysis. Next whole exome sequencing revealed all novel variants related to cancer. Furthermore, these novel variants can effect amino acids leads to instability of proteins. Finally, I have done validation with PCR analysis.

# <u>Master's thesis title:</u> "Evaluation of Hypoglycaemic and Antihyperglycemic Activity of Mono Ammonium Glyccyrrhizinate (MAG) by Gene Expression Studies in Streptazotocin (STZ) Induced Diabetic Rats."

Master's Summary: MAG is a chemical compound extracted from plants Glycyrrhiza glabra, especially from leaves. We have applied MAG on diabetic induced rats to see whether any changes in their diabetes and insulin production in the body. Results of MAG is having the antidiabetic potential of mediating through its effect on glucose-dependent GLP-1 stimulation. The present study confirms that the reported activities of MAG is not due to its direct effects on pancreatic β cells, but it is due to its effect on incretin hormones.

## **PROFESSIONAL EXPERIENCES:**

- > RNAseq, miRNAseq, Methylation, novel variant analysis, Single cell RNAseq data analysis.
- Trained "GENE expression studies, RT-PCR, ELISA, Western blotting, Immuno Histochemistry" Technique at the Department of Physiology from University of Malaya, Malaysia on Invitation under the Guidance of Prof. Naguib Sallah and Dr. Giri Babu.N in Aug 2017.
- Research experience as a project fellow in SERB funded project "Elicitation of the Molecular Mechanism Involved in the Down Regulation of Calcineurin and its Role in Cervical Cancer Progression." at Department of genetics, Osmania University, Hyderabad, India under Prof. Smita C. Pawar, Head Chairperson, Board of Studies - Biotechnology (September 2017-January 2019).

# TECHNICAL SKILLS:

- R- Programming
- Python
- Linux (Ubuntu)
- PyMOL

**REFERENCES:** 

# 1.Prof. KA-LOK NG, PhD. (吳家樂)

Professor at Department of bioinformatics and medical engineering, Asia University.

**DECLARATION:** I hereby declare that all the information mentioned above is true to the best of my knowledge.

VENUGOPALA REDDY MEKALA, M.Pharm & PhD. Date: December 28<sup>th</sup>, 2022