



## Koneru Lakshmaiah Education Foundation

(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

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**Campus:** Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

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**Admin Off:** 29-36-38, Museum Road, Governorpet, Vijayawada - 520 002. Ph: +91 - 866 - 3500122, 2576129

Ref: KLEF/RO/Pharmacy/2023-24

Date: 16.08.2023

**Orders of the Vice Chancellor dt. 16.08.2023**

**CIRCULAR**

Sub: Conduction of national workshop on “Network Pharmacology” during the month of August 2023– Reg.

Ref: Letter dt. 16.08.2023 from Principal, KL College of Pharmacy

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This is to inform that the KL College of Pharmacy of KLEF will be organizing the workshop on “Network Pharmacology” in the month August on 16.08. 2023, as detailed below:

Timings : 1:50 pm to 2:40 pm

Venue : Computer Lab (R-311), R-Block

To register for the workshop, please visit <https://forms.gle/oD138M7Ho3YgadB9A> and fill out the registration form. Seats are limited, so make sure to secure your spot as early as possible

Last date of registration : 18.08.2023

Interested students can participate in this event.

Contact Information: If you have any questions or need further information

Contact :

Dr Naresh Dumala, Assistant Professor, Mobile No. 9700087883

Dr Ramakrishna Kakarla, Assistant Professor, Mobile No. 8500544204



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### KL COLLEGE OF PHARMACY

#### Skill Activity Report August-2023

|                   |  |
|-------------------|--|
| Activity          | 01   |
| Date              | 19-08-2023   |
| Resource Person   | Dr. Ramakrishna Kakarla, Assistant Professor, K L College of Pharmacy, Koneru Lakshmaiah Education Foundation (KL University). |
| Workshop Title    | <b>Network Pharmacology</b>  |
| Participants      | B Pharmacy Students  |
| Room/Online link  | R-311 Computer Lab Pharmacy  |
| Organizing Member | Convenor: Dr. Naresh Dumala  |

#### KLCP- Workshop Pharmacology- Network Pharmacology

Network pharmacology is an interdisciplinary field that integrates principles from pharmacology, bioinformatics, systems biology, and network analysis to understand the complex interactions between biological molecules, such as genes, proteins, and metabolites, and how these interactions contribute to physiological and pathological processes. Traditional drug discovery often focused on individual targets, but network pharmacology considers the entire system of interactions, enabling a holistic understanding of drug actions and effects.

This report highlights several tools used in network pharmacology workshop conducted at KL College of Pharmacy, which includes GeneNetwork, Venny, ShinyGo, and KEGG tools.

#### GeneNetwork

GeneNetwork is a web-based platform designed for analyzing and visualizing genetic and genomic data. It offers a wide range of tools to explore and interpret genetic data and their relationships. Key features include:

**QTL Mapping:** GeneNetwork allows researchers to perform quantitative trait locus (QTL) mapping to identify genetic loci associated with specific traits. This aids in understanding the genetic basis of complex traits and diseases.

**Gene Expression Analysis:** Users can upload and analyze gene expression data, enabling the identification of co-expressed genes and pathways.

**Network Visualization:** GeneNetwork provides graphical representations of gene-gene interactions, helping researchers comprehend the underlying regulatory networks.

#### Venny

Venny is a versatile online tool used for generating Venn diagrams, which visualize the overlapping relationships between different sets of data. In network pharmacology, Venny can be employed to analyze and display shared and unique components among drug targets, pathways, and disease-associated genes. Notable features include:

*Naresh*



*G. Chellaboina* Page 1 of 3  
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**Multiple Set Comparison:** Venny supports the comparison of up to five data sets simultaneously, making it valuable for analyzing complex interactions in network pharmacology.

**User-Friendly Interface:** The tool's intuitive interface enables researchers to input data and customize diagram elements with ease.

### ShinyGo

ShinyGo is an interactive web-based tool that aids in the interpretation of large-scale omics data, particularly for gene ontology (GO) analysis. It facilitates the exploration of biological processes, molecular functions, and cellular components associated with a set of genes. Key features include:

**GO Enrichment Analysis:** ShinyGo performs GO enrichment analysis to identify overrepresented GO terms within a gene set, helping to uncover potential biological implications.

**Interactive Visualization:** The tool offers interactive visualizations, allowing users to explore enriched GO terms and their relationships in a dynamic manner.

### KEGG (Kyoto Encyclopedia of Genes and Genomes)

KEGG is a comprehensive resource that integrates biological information through pathway mapping and analysis. It provides a collection of databases and tools for understanding the molecular interactions and functions of genes and proteins. Notable features include:

**Pathway Mapping:** KEGG pathways illustrate the interactions and functions of molecules within biological pathways, aiding in the interpretation of complex interactions in network pharmacology.

**Disease Pathway Analysis:** KEGG enables researchers to explore disease-associated pathways, assisting in the identification of potential therapeutic targets.

### Conclusion

Network pharmacology is a powerful approach for understanding the intricate interactions between biological molecules and their contributions to health and disease. Tools like GeneNetwork, Venny, ShinyGo, STRING and KEGG play crucial roles in analyzing and visualizing these interactions, allowing students and researchers to make informed decisions in drug discovery, target identification, and pathway analysis. As technology continues to advance, these tools are likely to become even more sophisticated and instrumental in unraveling the complexities of network pharmacology.

The students of Pharmacy got benefited from this Workshop.

Total number of Registered: 29.

Total number of participated: 17.

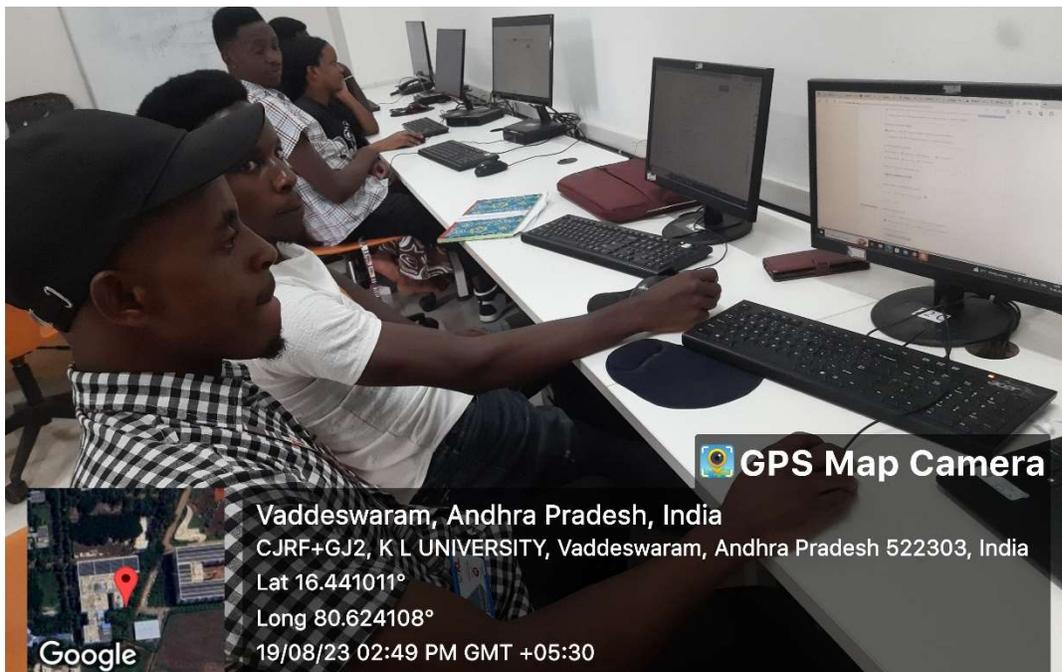
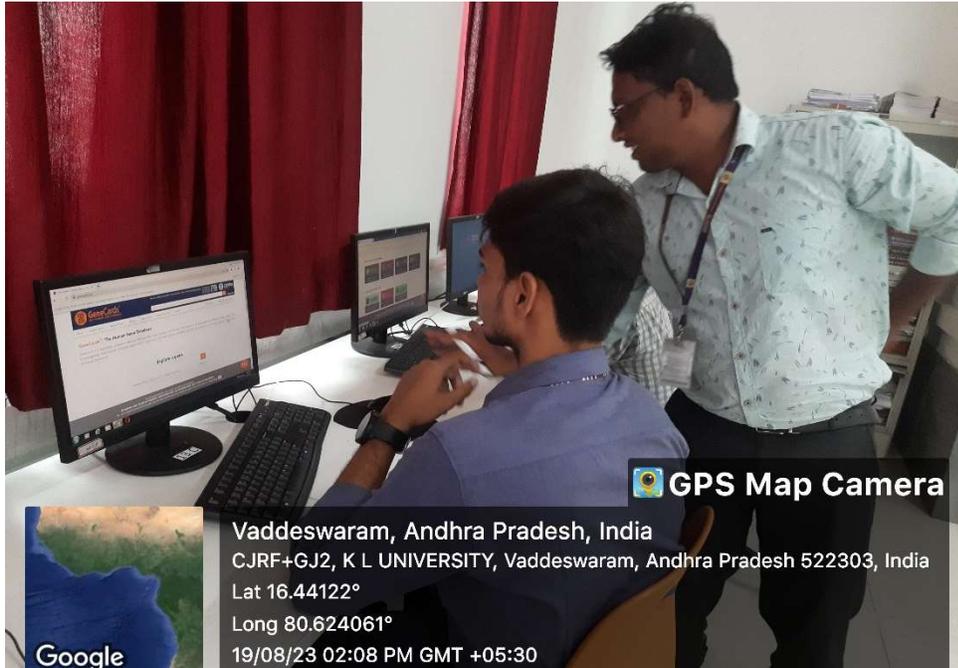


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KL College of Pharmacy



Professor  
Konda  
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Photographs of the Workshop- Network Pharmacology



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KL College of Pharmacy



*G. Chellaboina*  
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### KL COLLEGE OF PHARMACY

Skill Activity Report August-2023

#### List of Registered Participants for Workshop- Network Pharmacology.

| Sr. No. | University ID | Name of the Student           | Year of Study    |
|---------|---------------|-------------------------------|------------------|
| 1.      | 210539009     | Hayiru Mohammed               | III Year B Pharm |
| 2.      | 2101570008    | Bharadwaj kakumanu            | III Year Pharm D |
| 3.      | 2100530043    | Anshu Kumar Patel             | III Year B Pharm |
| 4.      | 2101570017    | Hemanth kalva                 | III Year Pharm D |
| 5.      | 2101570014    | R pavan sri viswanadh         | III Year Pharm D |
| 6.      | 2000530017    | M.Niveditha                   | IV Year B Pharm  |
| 7.      | 2000530024    | P. Jyothsna                   | IV Year B Pharm  |
| 8.      | 2000530025    | Nikhila Sunkara               | IV Year B Pharm  |
| 9.      | 2000530018    | G Lihitha                     | IV Year B Pharm  |
| 10.     | KL university | Ssekikubo Ronald              | IV Year B Pharm  |
| 11.     | 2100530066    | Ashish kumar jha              | III Year B Pharm |
| 12.     | 2100530051    | Jaya surya panduranga rao     | III Year B Pharm |
| 13.     | 2101570019    | Shaik Mohammad Noor           | III Year Pharm D |
| 14.     | 2100530084    | sailash kumar choudhary       | III Year B Pharm |
| 15.     | 2100530069    | PRINCE TIWARY                 | III Year B Pharm |
| 16.     | 2100530035    | Dhananjay Kumar               | III Year B Pharm |
| 17.     | 2000530029    | James Diokadan                | IV Year B Pharm  |
| 18.     | 2100530032    | Witness fanuel mvela          | III Year B Pharm |
| 19.     | 2100530064    | Ch Divya Sai kiran            | III Year B Pharm |
| 20.     | 2100530058    | M. Karthikeya Naidu           | III Year B Pharm |
| 21.     | 2100530007    | Samudrala Raghavendra Aswanth | III Year B Pharm |
| 22.     | 2100530060    | Nowdu Divya Teja              | III Year B Pharm |
| 23.     | 2100530041    | D.Ajay                        | III Year B Pharm |
| 24.     | 2100530036    | N Vamsi Vinay                 | III Year B Pharm |
| 25.     | 2100530059    | M Mahidhar reddy              | III Year B Pharm |
| 26.     | 2100530053    | mohamed basheir               | III Year B Pharm |
| 27.     | KI University | Milandu H. Tired              | III Year B Pharm |
| 28.     | 2100530039    | Raman kumar                   | III Year B Pharm |
| 29.     | 2100530008    | Chandu reddy pulagam          | III Year B Pharm |
| 30.     | 2000530060    | LUCKY NICHOLUS                | IV Year B Pharm  |
| 31.     | 2000530068    | ANISETH WILLIAM NDIKWIKI      | IV Year B Pharm  |
| 32.     | 2100530093    | PREETAM KUMAR                 | III Year B Pharm |
| 33.     | 2100530086    | Subodh Kumar Singh            | III Year B Pharm |

  
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Skill Activity Report August-2023

19/08/2023

### KLCP- Workshop Cology

#### Attendance Sheet

| Sr. No. | Name of Faculty/Student | Staff/Student ID | Year of the Study | Signa'          |
|---------|-------------------------|------------------|-------------------|-----------------|
| 1.      | WITNESS FANUEL          | 2100530032       | III               | Witnel          |
| 2.      | Mohamed Basheer omey    | 2100530053       | III               | Basheer         |
| 3.      | Mylandu H. Tired        | 2100530050       | III               | Mylandu         |
| 4.      | Ssekubko Ronald         | 2000530061       | IV                | Ssekubko        |
| 5.      | LUCY NICHOLS            | 2000530060       | IV                | Lucy            |
| 6.      | frince Tiwary           | 2100530069       | III               | Frince          |
| 7.      | M.J.S Panduranga Rao    | 2100530051       | III               | M.J.S           |
| 8.      | M.Karthikya Naidu       | 2100530058       | III               | M.Karthikya     |
| 9.      | D. UAJay                | 2100530041       | III               | D. UAJay        |
| 10.     | N. Divya Teja           | 2100530060       | III               | N. Divya Teja   |
| 11.     | p. Chandu reddy         | 2100530008       | III               | p. Chandu reddy |
| 12.     | S. Raghavendra Akhanta  | 2100530007       | III               | S. Raghavendra  |
| 13.     | Sailesh Kumar choudhary | 2100530084       | III               | Sailesh         |
| 14.     | Ashish Kumar Jha        | 2100530066       | III               | Ashish          |
| 15.     | Anshukumar Patel        | 2100530047       | III               | Anshu           |
| 16.     | Dharamjay Kumar         | 2100530035       | III               | Dharamjay       |
| 17.     | Vivek - Sagar           | 2100530068       | III               | Vivek Sagar     |
| 18.     |                         |                  |                   |                 |
| 19.     |                         |                  |                   |                 |
| 20.     |                         |                  |                   |                 |
| 21.     |                         |                  |                   |                 |
| 22.     |                         |                  |                   |                 |
| 23.     |                         |                  |                   |                 |
| 24.     |                         |                  |                   |                 |
| 25.     |                         |                  |                   |                 |

*[Signature]*

Professor In charge-Skill

Pharmacy Department



*[Signature]*  
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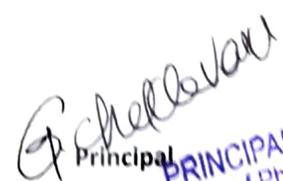
#### Feedback from the participants of the workshop- Network Pharmacology

| Timestamp             | How satisfied were you with the overall content of the workshop? | Which specific topics or sessions did you find most valuable or interesting? | How would you rate the instructor's knowledge and expertise on the subject? | Additional Comments:  |
|-----------------------|--|--|---|---|
| 8/19/2023<br>15:00:53 | Very Satisfied   | Everything is new and interesting  | Excellent   | No remarks  |
| 8/19/2023<br>15:10:12 | Very Satisfied   | Different Types of Genes   | Excellent   | The time we spend in work shop was So worth full  |
| 8/19/2023<br>15:12:14 | Satisfied  | Gene cards was so interesting topic  | Very good   | We need more to learn very much clear about the topic.  |
| 8/19/2023<br>15:33:04 | Very Satisfied   | Easy access and linking of drugs and diseases with respect to target genes   | Excellent   |   |
| 8/19/2023<br>15:49:29 | Very Satisfied   | string   | Excellent   | it was nice, and very effective<br>It was really nice session. We learn about 3-4 Online software in which we can find about any gene related information. And which disease related to which gene. |
| 8/19/2023<br>15:50:44 | Very Satisfied   | String   | Excellent   |   |

  
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Geo tagged photos of the workshop- Network Pharmacology

