

# 12<sup>th</sup> Next Generation Sequencing: miRNA-Seq data analysis

## Workshop



Map QR

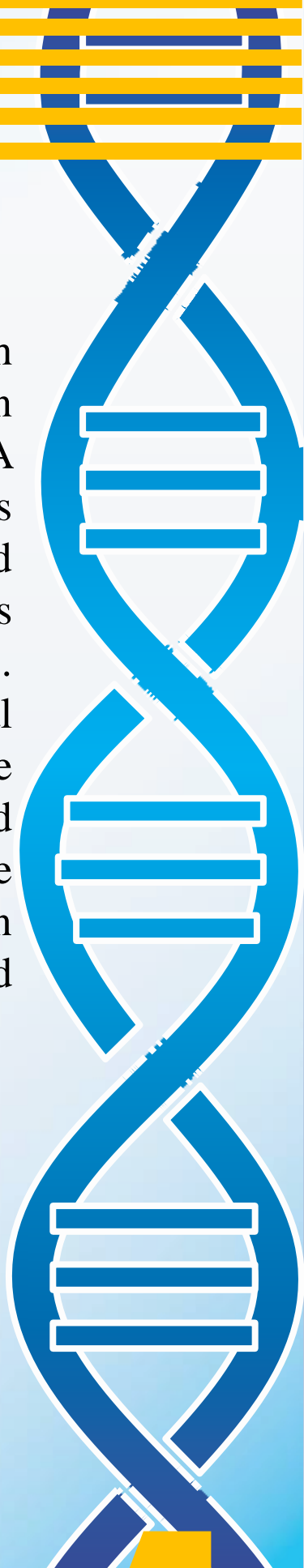
## 28 February-1 March, 2017

Media Teb Gene  
**OMICS**<sup>TM</sup>



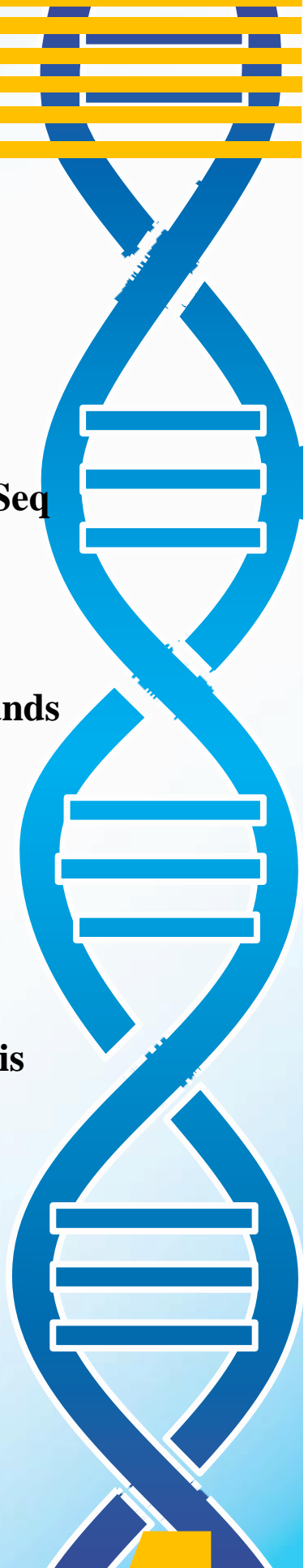
# Summary

The purpose of this workshop is to obtain a thorough understanding on the expression profiling of known microRNAs and the prediction of novel microRNA genes using next-generation sequencing technologies (NGS). The participants will be trained to understand both, the data analysis aspects of NGS technologies and the functional implications of small RNAs. Downstream analysis to infer the functional implication of the detected microRNAs will be discussed including target prediction/detection and functional analysis. After this workshop, the participants will be able to perform their own microRNA analysis using up-to-date methods and extract scientific valuable findings.



# Training Outlines

- ✓ **NGS Technologies**
- ✓ **Library Preparation and RNA QC**
- ✓ **Non-coding RNAs and miRNA Biogenesis, Small RNA-Seq Workflow and Data Analysis**
- ✓ **Quality Control and Data Pre-processing**
- ✓ **Introduction to the Command Line and Usefull Commands in Linux**
- ✓ **Mapping Data to Genome and Differential Expression Analysis**
- ✓ **Novel microRNA Identification**
- ✓ **microRNA Target Prediction & GO Enrichment Analysis**



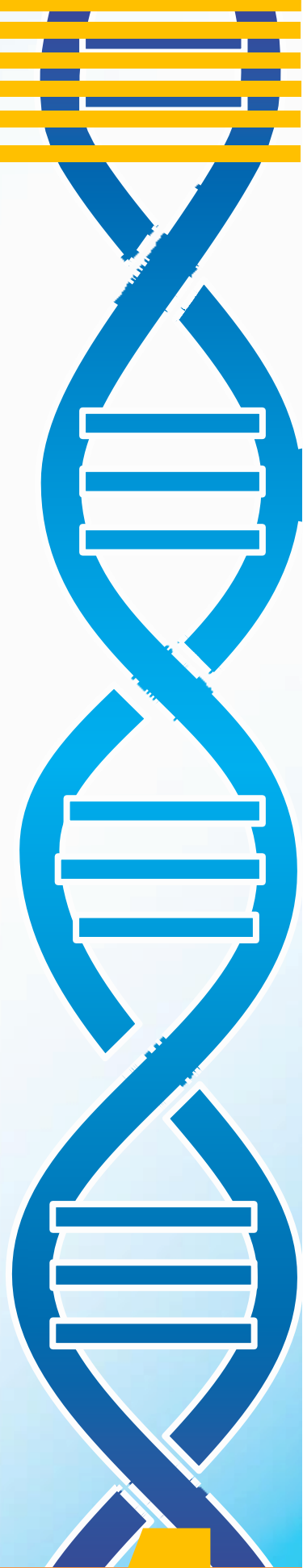
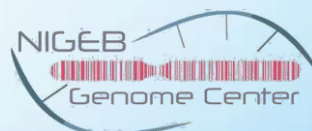
# Collaborators



پژوهشگاه ملی مهندسی ژنتیک و زیست فناوری



ریاست جمهوری  
معاونت علمی و فناوری



# Coordinators

**G. Sadipour, M.Sc.**

**[g.sadipour@omicstm.com](mailto:g.sadipour@omicstm.com)**

**OMICS Research Group**

**H. Heidari, M.Sc.**

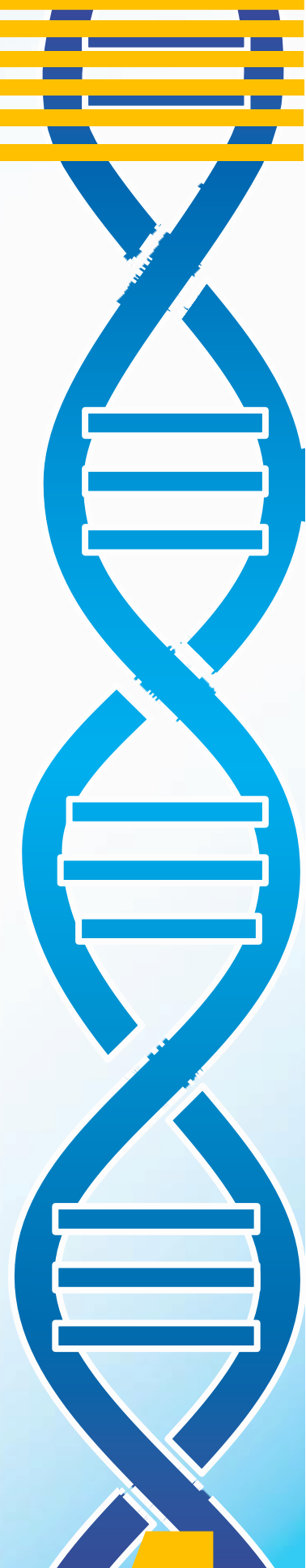
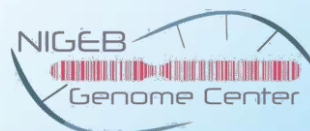
**[H.heidari@omicstm.com](mailto:H.heidari@omicstm.com)**

**OMICS Research Group**

**Z. Karimlou, M.Sc.**

**[Z.karimlou@omicstm.com](mailto:Z.karimlou@omicstm.com)**

**OMICS Research Group**



# Speakers

**V. Shariati, PhD**

**vshariati@nigeb.ac.ir**

**NIGEB**

**M. R. Bakhtiarizadeh, PhD**

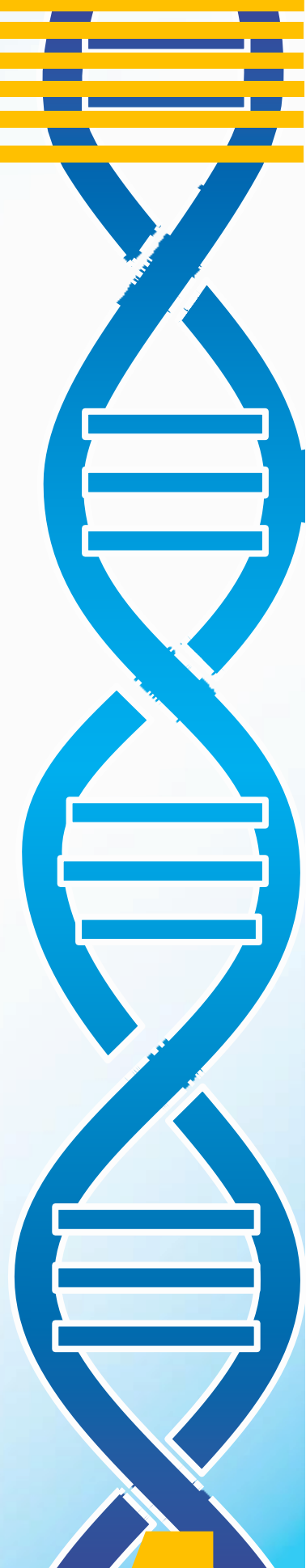
**mrbakhtiari@ut.ac.ir**

**University of Tehran**

**B. Arefnezhad, PhD**

**babaref@omicstm.com**

**OMICS Research Group**



## Assessment and Evaluation

In this workshop, we prepare a quiz or challenge to assess how much information participants learned and we survey participants to see if they found the training beneficial.

Hope to meet you at this workshop

