



INBIOSIS WORKSHOP SERIES 2023

Perseus-Powered Transcriptomics: Omics Insights Made Easy

This workshop will **focus** on topics ranging from **basic experimental design** to **advanced downstream analyses** of RNA-seq data as well as **tips to publish in high-impact journals**.

Upon the completion of this **3-day hybrid hands-on workshop**, participants will be **capable** of the following:

- **Conceptualising** a transcriptome **experiment** with different **considerations**
- **Understanding** a complete **workflow** of RNA-seq data acquisition, processing, assembly, functional annotation, analysis, and interpretation
- **Aware** of the different analysis workflows and **software** packages in RNA-seq analysis
- **Exposure** to different approaches for **integrating** transcriptomics with other **omics** towards **systems understanding**
- **Network opportunity** with other researchers in the field & **sharing of knowledge** via voluntary **flash talks**
- Hands-on in **de novo transcriptomic analysis** and **mining** data
- Hands-on in downstream **functional analyses**: WEGO, KEGG pathway, clustering, functional enrichment

Why should you attend

- ✓ You're a **researcher, academician, or student** interested in transcriptomics and its applications.
- ✓ You're interested in **advanced skills** in RNA-seq analysis.
- ✓ You want **user-friendly platforms** for the interpretation of RNA-seq data.
- ✓ You got the transcriptome **results** from the sequencing vendor but not sure how to **interpret** them.
- ✓ You wish to **analyse** the transcriptome data **hands-on**, especially as a biologist instead of a data scientist.
- ✓ You want to learn on how to mine for **biological knowledge** from transcriptome data **without programming/coding**.
- ✓ You work on a transcriptomic project and want to learn on how to **publish** your results as a **high-impact** journal article.

This workshop is opened to **local & international** participants, from **beginner** to **advanced researchers** in **molecular biology / omics**. The **content** of this workshop is **transferable** to other omics studies such as **proteomics**.

25-27 JUL 2023

[0900-1700 GMT+8]

VENUE: **HYBRID**

TRAINER

Assoc. Prof. Dr. Goh Hoe Han

FEE

Online

MYR300

USD80 (International)

On-site INBIOSIS

MYR750

Register Now!

*Priority will be given to those who made payment before **14th Jul 2023**

Organised by



Further details

inbiosis.workshop@gmail.com

+603 8921 4547/4558/4549

TENTATIVE PROGRAMME

Day 1: 25 Jul (Tue)

Time	Activity/Event
0830	Registration
0900	Introduction
	Lecture 1: Principles of transcriptomics
1030	<i>Morning Break</i>
1045	Lecture 2: A crash course on RNA-seq analysis
1230	<i>Technical talk 1 – Current developments of NGS</i>
1300	<i>Lunch Break</i>
1400	Practical 1: Perseus for data pre-processing/exploration
1600	<i>Afternoon Break</i>
1615	<i>Participant flash talks, Summary, discussion & wrap-up</i>
1700	<i>End of Day 1</i>

Day 2: 26 Jul (Wed)

Time	Activity/Event
0900	Introduction to Day 2 & Recap
0910	Lecture 3: Exploring RNA-seq analysis for biological discovery (Functional Annotation, DEG & Downstream Analyses)
1030	<i>Morning Break</i>
1045	Practical 2: Statistical analysis with Perseus
1230	<i>Technical talk 2 – Single-cell RNA-seq</i>
1300	<i>Lunch Break</i>
1400	Practical 3: Advanced statistical analysis: Multiple testing correction and FDR
1600	<i>Afternoon Break</i>
1615	<i>Participant flash talks, Summary, discussion & wrap-up</i>
1700	<i>End of Day 2</i>

Day 3: 27 Jul (Thu)

Time	Activity/Event
0900	Introduction to Day 3 & Recap
0910	Lecture 4: RNA-seq downstream analyses using Perseus
1030	<i>Morning Break</i>
1045	Practical 4: Cluster analysis and visualisation
1230	<i>Technical talk 3 – Applications of RNA-seq</i>
1300	<i>Lunch Break</i>
1400	Practical 5: Functional enrichment analysis
1600	<i>Afternoon Break</i>
1615	Summary, discussion & conclusion
1700	<i>End of Workshop</i>

LOCATION MAP

