

RNA-seq Analysis 2025

Faculty: Malachi Griffith and Obi Griffith

July 7-9, 2025

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Part I

Introduction

Chapter 1

Workshop Info

Coming soon!

1.1 Schedule

Time Time (Mount East- tain) ern)			Time Time (Mount East- tain) ern)			Time Time (Mount East- tain) ern)		
July 7			July 8			July 9		
7:30	9:30	Arrivals & Check-in	7:30	9:30	Arrivals	7:30	9:30	Arrivals
8:00	10:00	Welcome (Nia Hughes)	8:00	10:00	Module 2 - RNA alignment (practical)	8:00	10:00	Module 3 - RNA Expression and Differential Expression (Practical cont'd)
8:30	10:30	Module 1 - Intro to RNAseq course/concepts (lecture) (Malachi Griffith)						
9:30	11:30	Break (30min)	10:00	12:00	Break (30min)	10:00	12:00	Break (30min)

Time (Mountain)	Time (Eastern)	July 7	Time (Mountain)	Time (Eastern)	July 8	Time (Mountain)	Time (Eastern)	July 9
10:00	12:00	AWS Login and Setup	10:30	12:30	Module 2 - RNA alignment (practical cont'd)	10:30	12:30	Module 4 - Advanced Topics (Lecture) (Malachi Griffith)
10:30	12:30	Module 1 - RNAseq inputs and QC (practical)						
11:30	13:30	Lunch (1h)	11:30	13:30	Lunch (1h)	11:30	13:30	Lunch + Class Photo (1h)
12:30	14:30	Module 1 - RNAseq inputs and QC (practical cont'd)	12:30	14:30	Module 3 - RNA Expression and Differential Expression (Lecture) (Obi Griffith)	12:30	14:30	Module 4 - Pathway Analysis (Practical)
14:30	16:30	Break (30min)	13:30	15:30	Break (30min)	14:30	16:30	Break (30min)
15:00	17:00	Module 2 - RNA alignment concepts and file formats (lecture) (Obi Griffith)	14:00	16:00	Module 3 - RNA Expression and Differential Expression (Practical)	15:00	17:00	Module 4 - Batch Correction (Practical)
						16:00	18:00	Survey & Closing Remarks
16:30	18:30	(Optional) Team Assignment	16:30	18:30	(Optional) Team Assignment	16:30	18:30	End of Day 3
17:00	19:00	End of Day 1	17:30	19:30	End of Day 2			

1.2 Pre-work

You can find your pre-work here.

Chapter 2

Meet Your Faculty

Chapter 3

Data and Compute Setup

3.0.0.1 Course data downloads

Coming soon!

3.0.0.2 Compute setup

Coming soon!

Part II

Modules

Chapter 4

Module 1

4.1 Lecture

4.2 Lab

Chapter 5

Module 2

5.1 Lecture

5.2 Lab

Chapter 6

Module 3

6.1 Lecture

6.2 Lab

Chapter 7

Module 4

7.1 Lecture

7.2 Lab