

# DNA

UNIVERSITY STUDENT SPONSORSHIP PROGRAMME (USSP)

DNA 是脱氧核糖核酸的縮寫，是一種包含所有生物體發育、功能、生長和繁殖的遺傳指令的分子。

一睹莫納什大學馬來西亞基因組平台的工作空間及其研究項目

學習基因組學和生物信息學研究的基礎知識

分子生物學實驗技術的實踐培訓：

- 提取海參和海馬的基因
- 利用凝膠電泳分析提取基因
- 使用Agilent TapeStation提取和檢測核糖核酸的品質

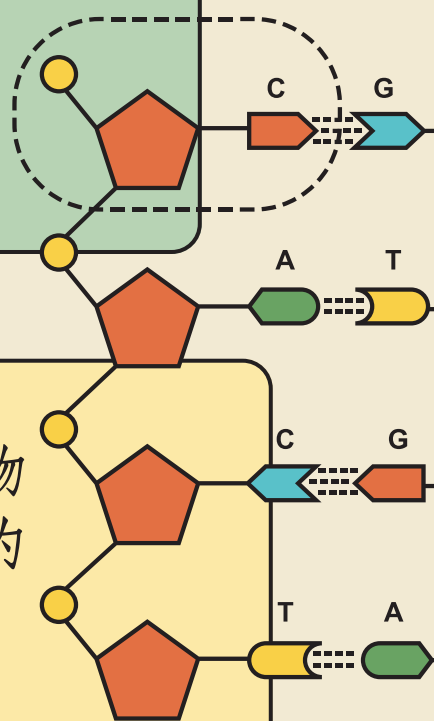
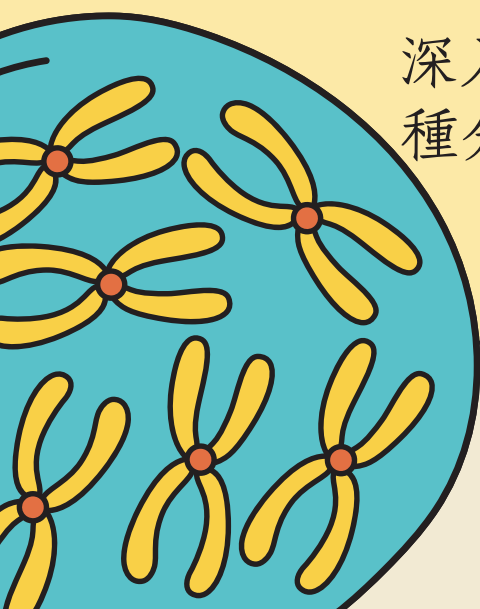
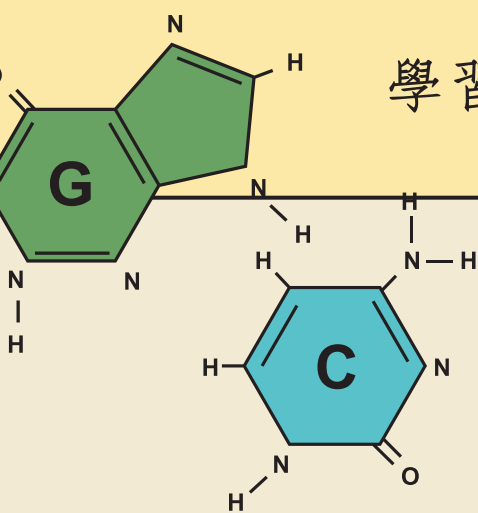
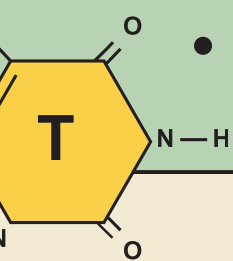
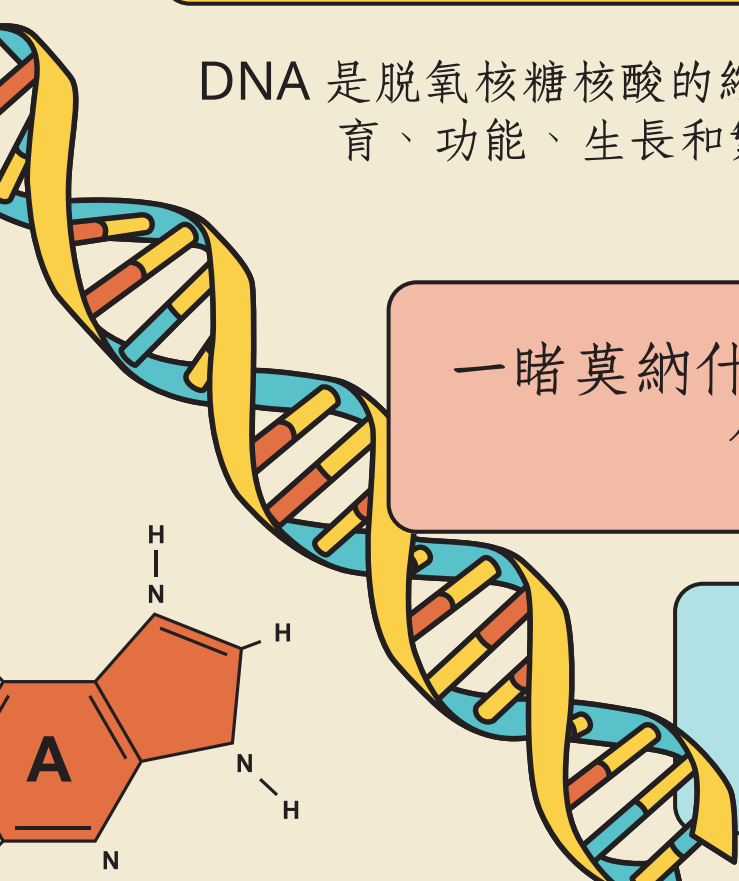
學習新一代測序技術及其應用概述

了解RNA測序數據分析的原理和方法

接觸生物信息學工具和軟件，包括：

- Linux操作系統
- Python編程語言
- UCSC基因組瀏覽器
- Ensembl基因組瀏覽器

深入瞭解海洋生物多樣性、物種分類鑑定和生態系統監測的相關概念



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DNA, short for deoxyribonucleic acid, is a molecule that contains genetic instructions for the development, functioning, growth, and reproduction of all living organisms.

Have a glimpse on the working space of Monash University Malaysia Genomics Platform and its research projects

Get to know the fundamentals of genomics and bioinformatics research

Hands-on training in essential molecular biology techniques

- DNA extraction from sea cucumbers and seahorses
- Gel electrophoresis for analysing extracted genomic DNA
- RNA extraction and quality control

Overview of next-generation sequencing technologies and their applications

Understand the principles and methods of RNA sequencing and data analysis

Exposure to bioinformatics tools and software, including:

- Linux operating system
- Python programming language
- UCSC Genome Browser
- Ensembl Genome Browser

Know the concepts related to marine biodiversity, taxonomic identification, and ecosystem monitoring

