



*Excellence and innovation in contemporary bioscience education.*

2010  
TEN YEARS  
ON

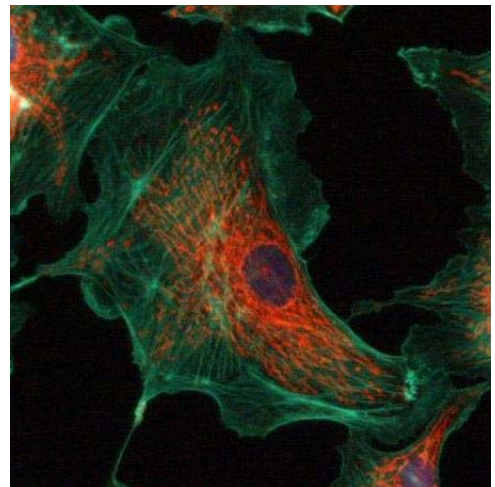
## EXPLORING CELL STRUCTURE

In this program, students are introduced to the fundamental unit of life: the cell. The program commences with an exploration of the principles of the structure and function of eukaryotic and prokaryotic cells and of the fascinating question of why nature came up with these two cell designs.

In the wet lab, students investigate the structure of cells by preparing slides of mammalian, leaf, and laboratory-cultured bacterial cells stained with methylene blue. They examine their slides by light microscopy up to a magnification of 1000 times and record their observations with labelled scientific drawings.

Students then conduct a triple-fluorescence stain of mammalian cells for examination under GTAC's Nikon TE2000-U fluorescence teaching microscope. The results of this experiment provide a unique and aesthetic insight into the architecture and function of eukaryotic cells, and students can subsequently download images recorded from their own slide preparations via the internet.

The program concludes with an examination of cell ultrastructures viewed through a series of images captured by electron microscopy.



### Program features:

Introductory lecture .  
Viewing cells.  
Fluorescent staining techniques.  
Laboratory tasks guided by a scientist mentor.  
Lunch at the University of Melbourne  
Follow up classroom work.

**Scheduling: Terms 1 and 4**

YEAR LEVEL: UNIT 1 VCE BIOLOGY, BOOKING CODE: VCE 101  
STANDARD RATE \$25-00/STUDENT

Contact Administrative Assistant for booking enquiries:  
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