

# BSc Honours Physiology

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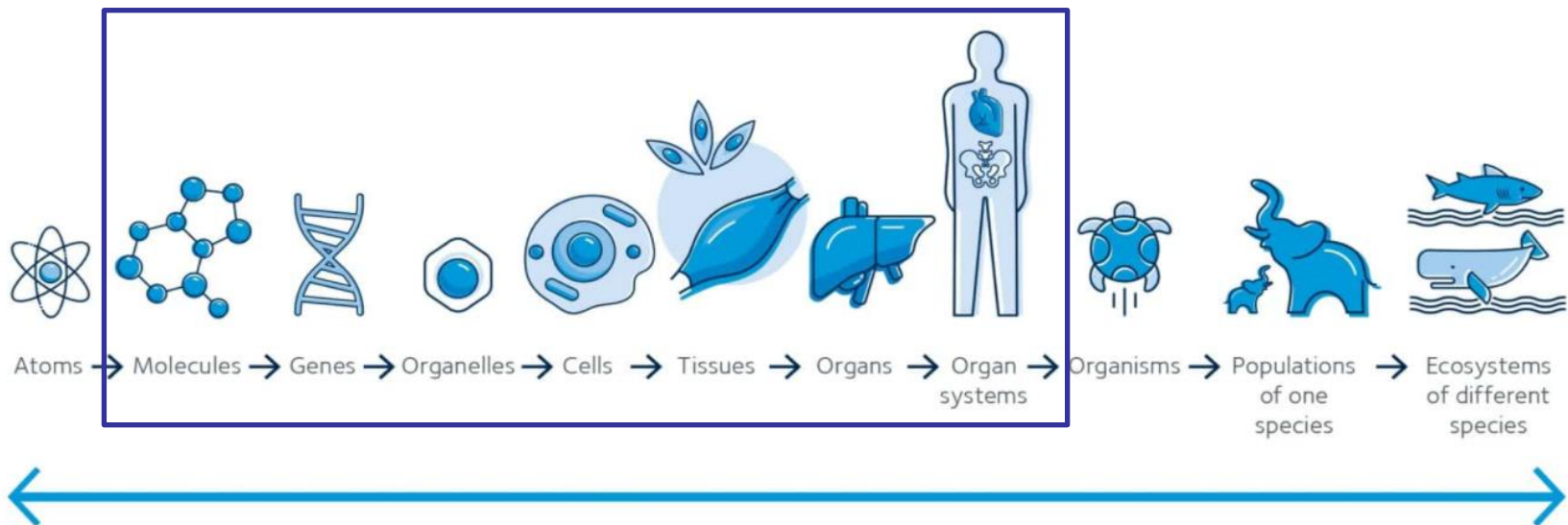
UCD School of Medicine  
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# What is Physiology

- » Students learn how cells interact in tissues and organs, and how organs function and interact to allow our bodies to function
- » Physiologists are at forefront of medical research
- » Pathophysiology of disease



Physiology is the science of life

# What Career Options do I have?

- » Biomedical Research
  - Academia / Industry
- » Clinical trials
- » Pharmaceutical sales and advisory roles (MSL)
- » Science writing
- » Various hospital roles (Perfusionist, Cardiac, Resp.)
- » Graduate Entry Medicine
- » Graduate Entry Veterinary Medicine
- » Masters in Physiology / Physiotherapy / Anatomy / Nutrition and Dietetics
- » PhD
- » Teaching



# Programme Overview

## Stage 2

**PHYS20040:** Cell  
and Tissue  
Physiology

**PHYS20030:**  
Organ and  
Systems  
Physiology

## Stage 3

Increased Focus  
on Organ  
Physiology.

Introduction to  
lab skills and  
increased critical  
thinking.

## Stage 4

Increased Focus  
on Research\*  
and Literature.

# Stage 2: Structure – Core modules

## Autumn

**PHYS20040: Cell and Tissue Physiology**

**BMOL20060: Biomol. Lab Skills 1**

**BMOL20090: Mol. Gen. and Biotech**

**BMOL20110: Biomol. Sciences**

## Spring

**PHYS20030: Organ and Systems Physiology**

## Summer

**\*Basic Chemistry / Physics (depending on LC)**



# Stage 3: Structure - Core Modules

## Autumn

### PHYS30300

Immunophysiology

### PHYS30010

Cardiovascular  
Physiology

**PHYS30090** Digestion  
and Excretion

**STAT20070** Data  
Modelling for Science

## Spring

### PHYS30020

Respiratory Physiology

### PHYS30040

Endocrine Physiology

### PHYS30190

Experimental  
Physiology

### PHYS30270

The Brain and Motor  
Control

## Summer

Internship (option)

SSRA (option)

Credits go towards  
stage 4



# Stage 4: Structure

## Autumn

**PHYS30180** Physiological Genomics.

**PHYS40170** Fundamentals of Physiological Research.

**PHYS40270**

Physiology Journal Club.

### Options:

Exercise Physiology.

Brain Disorders.

Adaptation to Hypoxia.

## Spring

**PHYS40060** Physiology Research Project (20 credits).

### Options:

Physiology of Disease.

Haemostasis and

Thrombosis.

## Summer

Graduation!



# Learning Environment: The Supervisors

- » Fifteen active research groups within Physiology
  - Pulmonary physiology/disease
  - Cardiovascular physiology/disease
  - Platelet biology
  - Neurophysiology/disease
  - Gastrointestinal physiology/disease
  - Oxygen sensing
  - Molecular physiology of cancer
  - Carbon dioxide sensing
  - Diabetes complications
  - Inflammation, tissue remodelling and fibrosis





# Why Physiology?

- Small groups
- Enhanced interactions
- All Lab-based research projects
- Great career prospects

Questions: [John.Baugh@ucd.ie](mailto:John.Baugh@ucd.ie)



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