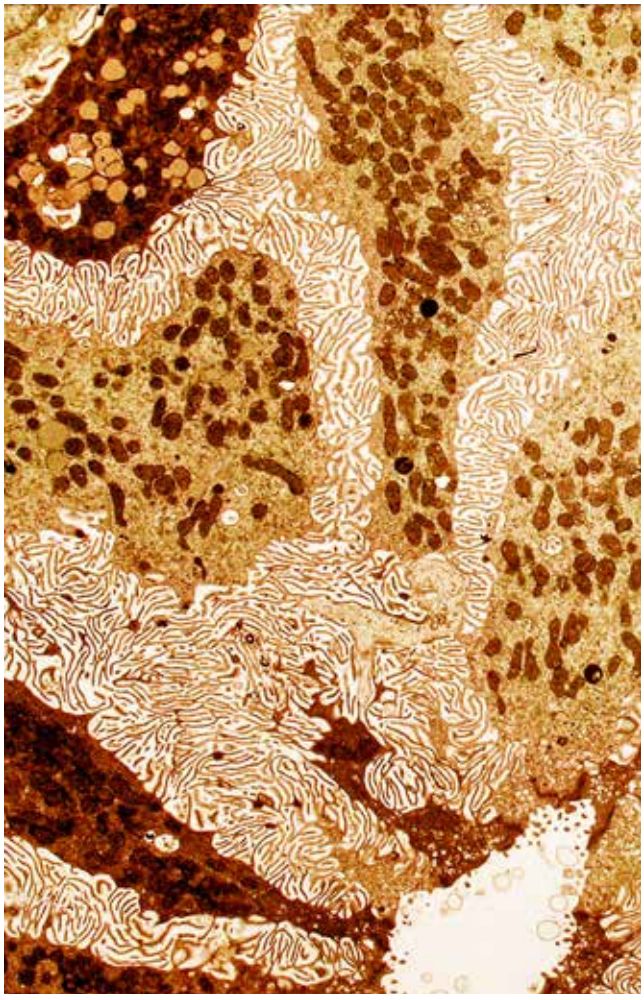
# Physiology

The science of how organs and whole organisms work



The salt gland of a crocodile seen under a microsope

Often described as the science of life, physiology is the science of how the body works. Cellular and molecular biology have enabled us to strip the body down to its constituent parts, but physiology is about putting those components back together and understanding how they interact. Physiologists study every aspect of how organisms function, from the actions of individual proteins within cells to how organ systems interact in the body.

**Why is it important?**

Physiology provides a foundation for all of the biological and clinical sciences.

Physiologists in the lab use their understanding of how the body functions to try to find cures for diseases, such as cystic fibrosis and Alzheimer's. Neurophysiologists work on brain function, understanding how we learn and remember, and why it sometimes goes wrong. Clinical physiologists work in hospitals and clinics, diagnosing and managing disease.

However, not all physiologists work in a lab. Exercise physiologists, for example, apply their science to help athletes reach the peak of their performance, while others apply their knowledge more broadly to assess how exercise can help the general population combat ageing and cardiovascular disease.

**What's the best route into a career in physiology?**

If you have studied biology at any level, you will have studied physiology. Most physiologists will have studied a biomedical science or sports science degree at university level. Following university, many will take a postgraduate qualification in the area of physiology that most interests them.

However, not everyone will continue to postgraduate level. Many people choose to go straight into industry or clinical roles, gaining experience alongside professional qualifications. Some go on to study medicine or dentistry, but due to the breadth of the subject, physiologists really can be found in all walks of life.

**Where can I find out more?**

The Physiological Society offers information about diverse areas of physiology. Here you can find information on public engagement activities, meetings and training courses. You can also find back issues of the Society's magazine, *Physiology News*.

- www.physoc.org

A range of similar international Societies exist, such as the American Physiological Society.

- www.the-aps.org