

Endocrine Systems & Reproduction

The third module of the year introduces you to the integrative functions of the major endocrine axes. The module goes over how major hormones are controlled, produced and act; with a focus on how hormones maintain homeostasis – and how defects can lead to profound symptoms. This module consists of roughly 52 sessions.

Topics Covered

- **Diabetes and obesity** – endocrine pancreas, pathophysiology, molecular defects, insulin antagonism/insensitivity, endocrine aspects of obesity.
- **Growth hormones axis** – normal growth hormone axis, case studies.
- **Thyroid axis** – normal thyroid axis, thyroid disease.
- **Adrenal axis** – normal adrenal axis, pathophysiology, regulation of electrolyte balance, AME & steroid metabolism, catecholamines, calcium homeostasis.
- **Reproduction** – hormonal control, gametogenesis, fertilisation, implantation, lactation, placentation, immunology, histology, fertility through life, interfertility.
- **Immunology** – endocrine disease aetiology and pathogenesis.

Learning Methods

- Lectures – usually a one-hour teaching session.
- PBL – problem-based learning, with a tutor in a small group.
- CAL – computer-assisted learning, in dry lab rooms with a tutor.
- SPL – self paced learning, homework tasks that you can tackle at your own pace.
- Workshops – active sessions based on clinical principles.

Resources

- Essential endocrinology and diabetes - Holt, Richard I. G., Hanley, Neil A. 2012.
- Basic epidemiology - Bonita, R., Kjellström, Tord, Beaglehole, R. 2006
- Pocock G, Richards CD and Richards DA Human Physiology.
- Epidemiology for the uninitiated - Coggon, D., Rose, G. A., Barker, D. J. P. c2003

Tips

- Do the SPLS – they have extremely useful cases that help you apply the content.
- Use flowcharts and diagrams to help map out pathways.