



course dates **29th Nov – 2nd Dec 2011**

# The Kidney as an Endocrine Organ

A four day course providing a comprehensive insight into the role of the kidney as an endocrine organ. The course will introduce the basic physiology of the main endocrine functions of the kidney and clinical conditions associated with abnormal function, including hypertension, diabetes mellitus and chronic kidney disease. These two elements are integrated throughout the course, particularly during the small group work.

Optional accreditation leads to a masters level Postgraduate Award.

Course Leader: Dr Rosemary Bland

THE UNIVERSITY OF  
**WARWICK**

# The Kidney as an Endocrine Organ

**Application Form:** (Closing date for applications: 15th November 2011)

## The Kidney as an Endocrine Organ. November 2011

I wish to (please tick as appropriate):

- Attend the course without accreditation: £600
- Attend the course and also register for the University of Warwick Postgraduate Award in The Kidney as an Endocrine Organ\*: £875

\*Note: Those wishing to register for the Postgraduate Award must also formally register with the University via Postgraduate Admissions. Please go to <http://go.warwick.ac.uk/pg> to apply online. Hard copy is available on request.

Name:.....

Address: .....

.....

..... Post Code: .....

Work Tel / Fax / E-mail: .....

Institution: .....

Position Held: .....

**To Register:** Please return completed form with the full fee or a deposit of £150. Please send either a cheque made payable to "University of Warwick" or an order number and invoicing details. The balance of the course fee is required by 21st November 2011.

A list of local hotels can be provided on request.

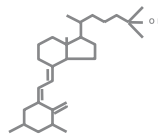
**Cancellation Charges:** The £150 deposit for the course is non-refundable after 21st November 2011. A further cancellation charge of £50 will be levied for bookings withdrawn after this date.

### Please return completed application form to:

Dr. Charlotte Moonan

School of Life Sciences, The University of Warwick, Coventry CV4 7AL. UK

E-mail: [Charlotte.Moonan@warwick.ac.uk](mailto:Charlotte.Moonan@warwick.ac.uk)



## Overview

This course will offer a new perspective to renal physiology. Although the kidney is known to have a number of endocrine functions these are often considered in isolation. This course will study each aspect of renal endocrinology in an integral manner that will illustrate how the kidney is an endocrine organ. Participants will gain a comprehensive understanding of basic and molecular endocrinology. Individual aspects of normal and abnormal renal endocrinology will be examined and integrated with clinical conditions such as hypertension, diabetes mellitus and chronic kidney disease.

Teaching will be through a combination of formal lectures and small group workshops. A comprehensive course manual will be provided.

## Course programme to include:

### Normal renal endocrinology:

The kidney as an endocrine sensor organ

Minerals

Fluid and salt

Oxygen and blood composition

Flow and blood pressure.

The hormones

The vitamin D hormonal system

Erythropoietin

Renin-Angiotensin-Aldosterone system

Vasopressin, Antidiuretic hormone.

### Normal endocrine regulation by the kidneys:

Insulin

Vitamins

Adiposity hormones

Pregnancy.

### Abnormal renal endocrinology:

Mineral homeostasis

Secondary hyperparathyroidism

Renal bone disease

Vascular Calcification

Hyper/hypocalcaemia and phosphataemia.

The rennin angiotensin aldosterone system

Hypertension

Sodium reabsorption

Erythropoietin

Anaemia

Immune/inflammation modulation

### Epidemiology of renal endocrinology:

### Management of the alterations of renal endocrinology:

### Genetics of endocrine conditions:

RAAS mutations

VDR, CYP27B1 mutations

CaR mutations

### Rare diseases.

Throughout the course special emphasis will be placed on integration of basic science, clinical conditions and evidence based medicine.

## Teaching Faculty:

Lecturers and tutors will be drawn from the School of Life Sciences and Warwick Medical School, University of Warwick and the University Hospitals of Coventry and Warwickshire including:

**Dr Rosemary Bland** Associate Professor, Warwick Medical School University of Warwick.

**Dr Davy Ip** Consultant Nephrologist, University Hospitals of Coventry and Warwickshire.

**Dr Daniel Zehnder** Associate Professor (Clinical), Warwick Medical School, University of Warwick.

In addition tutors will include a number of experts in various aspects of the kidney.

# The Kidney as an Endocrine Organ

## Course Venue

The University of Warwick ranks in the top ten of the country's one hundred universities. The Department of Biological Sciences has an international reputation in fundamental and strategic research. Housed on an integrated self-contained site the department has well-equipped research and teaching laboratories, support facilities, and modern teaching rooms.

The University is situated in a country setting 3 miles from Coventry on a large, scenic campus. There is easy access by road, rail (London - 60 minutes; Birmingham - 17 minutes) and air (Birmingham International Airport - 12 miles).

## Who should attend?

The course is designed for all health care professionals and allied groups, including pharmaceutical industry personnel. It is suitable for GPs and Hospital Doctors (including F1 and F2) with an interest in endocrinology, chronic kidney disease, diabetes mellitus and specialist renal registrars early in their training. The course is also suitable for specialist nurses, dietitians, dentists and other professionals wishing to improve their understanding of the kidney. In addition the course is also suitable for scientists new to the field of renal endocrinology, e.g. PhD students or post-doctoral research fellows.

## University of Warwick Postgraduate Award in the Kidney as an Endocrine Organ

Participants attending the course can apply to register for the prestigious University of Warwick Postgraduate Award (PGA) in The Kidney as an Endocrine Organ. Those registered for the award will be additionally required to successfully complete the following within six months of attending the course;

- Home learning based on suggested reading material
- Submission of an essay (4,000 words) as coursework based on home learning
- Five case study based questions

The Warwick Postgraduate Award in The Kidney as an Endocrine Organ is approved at Masters level under the Credit Accumulation and Transfer Scheme (CATS) and carries 20 CATS points at M-level.

Please note that those wishing to register for the award must be graduates in an appropriate science discipline or show evidence of longstanding vocational experience.

## Enquiries to:

Dr. Charlotte Moonan,  
School of Life Sciences, The University of Warwick, Coventry CV4 7AL, UK  
Tel: 024 7652 3540 Fax: 024 7652 3701 E-mail: [Charlotte.Moonan@warwick.ac.uk](mailto:Charlotte.Moonan@warwick.ac.uk)

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