

## MEDICAL AND VETERINARY SCIENCES TRIPOS, PART II

MICHAELMAS 2004

LENT 2005

EASTER 2005

## FOUR PAPER SUBJECTS

## Mechanisms of Disease: from Process to Patient

Course Organisers: Dr J.H. Xuereb and Dr S. Thiru. (E-mail: jhx1000@cam.ac.uk)

Lectures will be held at 10.30 a.m. daily in the Lecture Theatre, Ground Floor, Department of Pathology, Tennis Court Road, unless otherwise indicated.  
Seminars and Case Studies will be held in the same venue at 1.30 p.m. unless otherwise indicated.

## Lectures

10.30 a.m. till 11.30 a.m.

## Case Studies

1.30 p.m. till 3.30 p.m.

\*Seminar Room, Ground Floor, The Clinical School, Addenbrooke's Hospital

\*\*Seminar Room, First Floor, Department of Pathology

\*\*\*Greaves Room, First Floor, Department of Pathology

DR J. H. XUEREB

- Tu. 5 Oct. Introduction to course
- Tu. 5 Oct. An introduction to dissertations (Seminar)\*\*\*

## Infectious disease and Immunodeficiency

DR N. BROWN

- W. 6 Oct. Sepsis and the host's response to infection.

DR T. BAGLIN

- W. 6 Oct. Disseminated intravascular coagulation (Case study)\*\*

DR M. FARRINGTON

- Th. 7 Oct. Pneumonia – racing against the escalator.

DR M. FARRINGTON AND DR T. WREGHITT

- Th. 7 Oct. Infection in the immunocompromised host (Case study)

PROF. A. LEVER

- F. 8 Oct. Molecular biology of human immunodeficiency virus

## SEMINAR

- F. 8 Oct. How to search for electronic literature \*

PROF. A. LEVER

- M. 11 Oct. Pathogenesis of AIDS

## SEMINAR

- M. 11 Oct. How to search for electronic literature \*

DR A. CARMICHAEL

- Tu. 12 Oct. Immunological controls of HIV infection

DR D. KUMARARATNE

- W. 13 Oct. Mechanisms of immunity to mycobacteria in humans

DR J. H. XUEREB

- W. 13 Oct. AIDS in mother and child (Case Study)

DR D. KUMARARATNE

- Th. 14 Oct. Immunodeficiency - molecular mechanisms I
- Th. 14 Oct. Immunodeficiency - molecular mechanisms II At 1.30 p.m.

PROF. A. LEVER

- M. 18 Oct. HTLV - infection and pathogenesis
- M. 18 Oct. Microbial invasion of the central nervous system At 1.30 p.m.

DR D. KUMARARATNE

- Tu. 19 Oct. Vaccines against bacterial meningitis

PROF. A. MINSON

- W. 20 Oct. The nature of prions At 1.30 p.m.

DR J. H. XUEREB

- Th. 21 Oct. Phenotypic spectrum of spongiform encephalopathy

## Autoimmune disease and immunological malignancy

DR J. BRADLEY

- M. 25 Oct. Vascular endothelium – physiology and pathophysiology

DR A. EXLEY

- M. 25 Oct. The mucosal immune system At 1.30 p.m.
- Tu. 26 Oct. Lung defence: insight from clinical cases (Case Study) At 10.30 a.m.

DR R. TOOZE

- W. 27 Oct. Lymphoma: an immunological perspective I
- Th. 28 Oct. Lymphoma: an immunological perspective II

DR S. THIRU

- Th. 28 Oct. Hereditary angioneurotic oedema (Case study)

## Tumour Biology

PROF. SIR E. D. WILLIAMS

- Tu. 18 Jan. Carcinogenesis, environment and growth control

DR M. ARENDS

- W. 19 Jan. Familial predisposition to cancer: colorectal cancer.

DR J. H. XUEREB

- W. 19 Jan. Hypertension and neurofibromatosis (Case study)

PROF. C. CALDAS

- Th. 20 Jan. Molecular biology of breast cancer

DR A. CLUROE

- Th. 20 Jan. A lump in the breast: a multidisciplinary approach to cancer (Case study)

DR M. ARENDS

- F. 21 Jan. Infection and cancer: molecular biology of cervical cancer

PROF. A. GREEN

- M. 24 Jan. Leukaemia I: transcriptional regulation of haemopoiesis
- Tu. 25 Jan. Leukaemia II: molecular pathology

DR J. CRAIG

- Tu. 25 Jan. Pathogenesis and management of leukaemia (Case study) At 2 p.m.

DR E. SOILLEUX

- W. 26 Jan. The Langerhans cell and histiocytic disorders

PROF. E. R. CHILVERS

- W. 26 Jan. Cavitating lung disease (Case study)

DR E. SOILLEUX

- Th. 27 Jan. Tumour immunology

PROF. V. P. COLLINS

- F. 28 Jan. Cerebral gliomas: the pathway and molecular biology

DR J. H. XUEREB

- F. 28 Jan. Clinico-anatomical correlation of pituitary adenoma. (Case study)

DR A. WHITEHEAD

- M. 31 Jan. Biology of neoplasms in children

PROF. V. P. COLLINS

- M. 31 Jan. Cerebral oedema and intracranial pressure (Case study)

## Transplantation

DR C. TAYLOR

- Tu. 1 Feb. Histocompatibility

DR S. THIRU

- W. 2 Feb. Immunobiology of transplantation and rejection I

- Th. 3 Feb. Immunobiology of transplantation and rejection II

- Th. 3 Feb. Immunobiology of transplantation and rejection III At 1.30 p.m.

DR E. BOLTON

- F. 4 Feb. Molecular basis of immunosuppression I

- M. 7 Feb. Molecular basis of immunosuppression II

DR J. STERLING

## Skin

- M. 25 Apr. Normal and abnormal skin structure

- M. 25 Apr. Dissertation Presentations (students) 1.30 p.m.

- Tu. 26 Apr. Skin as a renewable organ

- Tu. 26 Apr. Dissertation Presentations (students) 1.30 p.m.

- W. 27 Apr. Skin as an organ of immunity

- W. 27 Apr. Dissertation Presentations (students) 1.30 p.m.

- Th. 28 Apr. Disorders of the skin immune system

- Th. 28 Apr. Dissertation Presentations (students) 1.30 p.m.

## The Circulation

PROF. P. WEISSBERG

- F. 29 Apr. Atherosclerosis

- F. 29 Apr. Dissertation Presentations (students) 1.30 p.m.

PROF. M. BENNETT

- Tu. 3 May Pathobiology of intervention in coronary artery disease

- At 10.30 a.m.

- Tu. 3 May Coronary artery disease (Case study) At 11.45 a.m. following 10.30 a.m. lecture

DR J. STERLING

- Tu. 3 May Bullous skin disease (Case study)

DR N. BURROWS

- W. 4 May Ehlers-Danlos syndrome (Case study) At 10.30 a.m.

DR M. GODDARD

- Th. 5 May Ischaemic cardiomyopathy

DR J. H. XUEREB

- Th. 5 May Infectious endocarditis (Case study)

**MEDICAL AND VETERINARY SCIENCES TRIPOS, PART II (continued)**

MICHAELMAS 2004

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EASTER 2005

PROF. J. H. GASTON

F. 29 Oct. The role of HLA antigens in the pathogenesis of arthritis

DR J. H. XUEREB

M. 1 Nov. Polyarthritis (*Case Study*) At 10.30 a.m.M. 1 Nov. Acute mono-arthritis (*Case study*)

PROF. J. H. GASTON

Tu. 2 Nov. T Lymphocytes and joint inflammation

W. 3 Nov. Cytokines in arthritis – potential therapeutic targets

W. 3 Nov. Infectious agents and arthritis: Lyme disease and reactive arthritis At 1.30 p.m.

DR K. G. SMITH

Th. 4 Nov. Systemic lupus erythematosus I

M. 8 Nov. Systemic lupus erythematosus II

DR J. XUEREB

M. 8 Nov. The syndromes produced in renal injury (*Case study*)

Tu. 9 Nov. Inflammation in the CNS

Th. 11 Nov. Aetiology and pathogenesis of demyelinating diseases

Th. 11 Nov. Clinico-anatomical correlation in multiple sclerosis (*Case study*)

DR A. MARKER

F. 12 Nov. Autoimmunity in the thyroid gland

F. 12 Nov. Thyroid enlargement (*Case study*)

DR B. COTTRELL

M. 15 Nov. Infection and immunity in inflammatory bowel disease

M. 15 Nov. Inflammatory bowel disease (*Case study*)**Endocrine and Metabolic Disease**

PROF. S. O'RAHILLY

Tu. 16 Nov. Understanding human obesity

PROF. K. CHATTERJEE

Tu. 16 Nov. Principles of nuclear hormone action At 1.30 p.m.

W. 17 Nov. Nuclear receptors in human disease

W. 17 Nov. Cushing's syndrome (*Case study*)

DR S. THIRU

Th. 18 Nov. The kidney as an endocrine organ

PROF. J. COMPSTON

F. 19 Nov. Bone cell physiology

M. 22 Nov. Pathology of metabolic bone disease

DR J. H. XUEREB

M. 22 Nov. Paget's Disease (*Case study*)

PROF. S. O'RAHILLY

Tu. 23 Nov. How insulin works and how it goes wrong

DR S. THIRU

W. 24 Nov. Mechanisms of renal damage in diabetes mellitus

DR J. H. XUEREB

W. 24 Nov. Fasting hypoglycaemia (*Case study*)

DR S. J. MIDDLETON

Th. 25 Nov. Gastrointestinal hormones and peptides

F. 26 Nov. Carcinoid syndrome

PROF. V. P. COLLINS

Tu. 30 Nov. Mitochondrial encephalomyopathies

PROF. T. COX

W. 1 Dec. The lysosome – a gateway to treatment

DR N. COLEMAN

Th. 2 Dec. Metabolic effects of cancer (*Case study*)

DR D. O'DONOVAN

F. 3 Dec. Peroxisomal disorders

DR J. H. XUEREB

M. 7 Feb. Dissertations: writing up (*Seminar*)\* \*\*

PROF. A. BRADLEY

Tu. 8 Feb. Immunological tolerance in transplantation

W. 9 Feb. Xenotransplantation

DR S. THIRU

Th. 10 Feb. Long term outcome of transplantation

Th. 10 Feb. A kidney graft for complications of Diabetes Mellitus (*Case study*)

DR S. CHANDRAN

F. 11 Feb. Transplantation in the central nervous system

M. 14 Feb. Endogenous stem cell responses to injury in the CNS

**Gestational, Paediatric and Inherited Diseases**

DR S. CHARNOCK-JONES

Tu. 15 Feb. Placental vascular morphogenesis

W. 16 Feb. Pathogenesis of pre-eclampsia

Th. 17 Feb. Gestational trophoblastic disease

DR J. WHITTAKER

Th. 17 Feb. Diagnosis of genetic disease (*Case study*)

DR K. ONG

F. 18 Feb. Fetal and early infant development

DR A. WHITEHEAD

M. 21 Feb. Pathophysiology of disease in the premature baby

DR C. ACERINI

Tu. 22 Feb. Growth disorders of childhood

PROF. I. HUGHES

W. 23 Feb. Disorders of sex development

DR D. RUBINSZTEIN

Th. 24 Feb. At 10.30 a.m. Molecular genetics and pathology of Huntington's disease I

At 12 noon Molecular genetics and pathology of Huntington's disease II

DR D. O'DONOVAN

F. 25 Feb. Biology and pathology of muscular dystrophy

DR J. H. XUEREB

F. 25 Feb. Muscle weakness and wasting (*Case study*)

PROF. J. YATES

M. 28 Feb. The genetic pathology of tuberous sclerosis

DR R. ILES

Tu. 1 Mar. Molecular and cell biology of cystic fibrosis

DR E. REID

W. 2 Mar. Hereditary spastic paraplegia

**Pathophysiology of some organ based / systemic diseases****Brain**

DR J. H. XUEREB

Th. 3 Mar. Amyloid deposition in the brain

F. 4 Mar. Biology and pathology of tau protein

M. 7 Mar. Excitotoxicity

DR R. DAVIES

M. 7 Mar. Tau-related dementia syndromes (*Case study*)**Gastro-intestinal**

DR V. SAVE

Tu. 8 Mar. Pathophysiology of *Helicobacter* infection

W. 9 Mar. Coeliac disease: malabsorption and malignancy

W. 9 Mar. Steatorrhea (*Case Study*)

**MEDICAL AND VETERINARY SCIENCES TRIPOS, PART II (continued)**

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*Hepatobiliary*

DR S. DAVIES

Th. 10 Mar. Viral hepatitis I

DR S. DAVIES AND MR R. PRASEEDOM

Th. 10 Mar. Jaundice (*Case study*)

DR S. DAVIES

F. 11 Mar. Viral hepatitis II

M. 14 Mar. Hepatocellular carcinoma

DR S. THIRU

M. 14 Mar. Cirrhosis and liver failure (*Case study*)*Kidney*

DR S. THIRU

Tu. 15 Mar. Pathophysiology of progressive renal disease

DR J. BRADLEY AND DR S. THIRU

Tu. 15 Mar. End-stage renal failure (*Case study*)*Lung*

DR M. GODDARD

W. 16 Mar. Pathophysiology of pulmonary microvasculature

DR R. ROSS-RUSSELL

W. 16 Mar. Asthma and its consequence (*Case study*)

DR S. STEWART

Th. 17 Mar. Respiratory tract hypersensitivity.

F. 18 Mar. Irreversible airway narrowing and alveolar wall destruction

**Biochemistry**

Course Organiser: Prof. D. J. Ellar email dje12cam.ac.uk@mole.bio.cam.ac.uk

This course consists of core and option lectures chosen from N.S.T. Part II Biochemistry (see p. 188)

**Pathology**

Course Organiser: Dr I. Brierley (email: ib103@mole.bio.cam.ac.uk)

This course consists of lectures from the relevant options chosen from N.S.T. Part II Pathology (see p. 196)

Option A Cellular and Genetic Pathology

Option B Immunology

Option C Microbial and Parasitic Disease

Option D Virology

**Pharmacology**

Course Organiser: Dr J. M. Edwardson (email: jme1000@cam.ac.uk)

This course consists of lectures from N.S.T. Part II Pharmacology (see p. 197)

**Psychology**

Course Organiser: Dr J. Russell (email: jr111@hermes.cam.ac.uk)

This course consists of lectures from N.S.T. Part II Psychology (see p. 201)

**Physiology**

Course Organiser: Dr J. Rogers (email: jhr11@cam.ac.uk)

This course consists of lectures from N.S.T. Part II Physiology Modules One, Two, Four and Five (see p. 198)

**Zoology**

Course Organiser: Dr J. R. Flowerdew email: j.r.flowerdew@zoo.cam.ac.uk

This course consists of the following modules from Part II Zoology (see p. 203)

**Behaviour**

Module Organiser – Prof. E. B. Keverne

**Neural Mechanisms of Behaviour**

Module Organiser – Dr B. Hedwig

**Behavioural Ecology**

Module Organiser – Dr R. A. Johnstone

**Conservation Biology**

Module Organiser – Dr M. Brooke

Lectures take place in *the Part II Lecture Theatre, Department of Zoology* unless otherwise stated

**MEDICAL AND VETERINARY SCIENCES TRIPOS, PART II (continued)**

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**TWO PAPER SUBJECTS****Behaviour and Neural Mechanisms of Behaviour**

Course Organiser: Dr J. R. Flowerdew (email: j.r.flowerdew@zoo.cam.ac.uk)

This course consists of the following two modules from Part II Zoology (see p. 203).

**Behaviour**

Module Organiser – Prof. E. B. Keverne

**Neural Mechanisms of Behaviour**

Module Organiser – Dr B. Hedwig

**Behavioural Ecology and Conservation Biology**

Course Organiser: Dr J. R. Flowerdew (email: j.r.flowerdew@zoo.cam.ac.uk)

This course consists of the following two modules from Part II Zoology (see p. 203).

**Behavioural Ecology**

Module Organiser – Dr R. A. Johnstone

**Conservation Biology**

Module Organiser – Dr M. Brooke

All lectures take place in *the Main Lecture Theatre, Department of Zoology***Sensory and Motor Physiology**

Course Organiser: Dr J. Rogers (email: jhr11@mole.bio.cam.ac.uk)

This course consists of lectures from NST Part II Physiology, Modules One and Two (see p. 198)

**Cellular and Developmental Physiology**

Course Organiser: Dr J. Rogers (email: jhr11@mole.bio.cam.ac.uk)

This course consists of lectures from NST Part II Physiology, Modules Four and Five (see p. 199)

**Medical Neurobiology and Systems Physiology**

Course Organiser: Dr J. Rogers (email: jhr11@mole.bio.cam.ac.uk)

This course consists of lectures from NST Part II Physiology, Modules Three and Six (see pp. 199, 201)

**Developmental and Systems Physiology**

Course Organiser: Dr J. Rogers (email: jhr11@mole.bio.cam.ac.uk)

This course consists of lectures from NST Part II Physiology, Modules Three and Four (see p. 199)

**History of Medicine**

This course will consist of lectures from NST Part II History and Philosophy of Science (see p. 191)

Prof. Lipton and Dr Hopwood would like to see all Part II students on Wednesday, 6 October at 11 a.m. in *Seminar Room 2, Department of History and Philosophy of Science, Free School Lane*. Discussion of the special needs of M.V.S.T. Part II students taking the Two Paper Subjects in History of Medicine will be included in this meeting.

**Biological Anthropology**

This course will consist of any two papers B3, B4 and B5, from Part II Biological Anthropology (see p. 220)

**Pharmacology of Integrated Systems**

Course Organiser: Dr J. M. Edwardson (email: jme1000@cam.ac.uk)

This course will consist of lectures from N.S.T. Part II Pharmacology under the section named Pharmacology of Integrated Systems (see p. 197)

**MEDICAL AND VETERINARY SCIENCES TRIPOS, PART II (continued)**

MICHAELMAS 2004

LENT 2005

EASTER 2005

**ONE PAPER SUBJECTS****Biology of Parasitism**

Course Organiser: Dr S. Lloyd (email: ssl1000@hermes.cam.ac.uk)

All lectures take place in the *Department of Pathology* on M. W. Th. 4 unless otherwise stated.  
Further information available on Faculty of Biology web-site. Dissertation available.

Lecture 1. Overview of developments (7 Oct.)  
Lectures 2–3. Morphology and life cycles (two lectures, beginning 11 Oct.)  
Lectures 4–9. Transmission, recognition of the host, behavioural adaptations (six lectures, beginning 14 Oct.)  
Lecture 10. Population stability (28 Oct.)  
Lectures 11–13. Season and hypobiosis (three lectures, beginning 1 Nov.)  
Lectures 14–20. Zoonoses (seven lectures, beginning 8 Nov.)  
Lecture 21–23. Pathophysiology and pathology (three lectures, beginning 25 Nov.)  
Lecture 24. Invertebrate responses to parasites (2 Dec.)

Lecture 25. Immune responses to arthropods (20 Jan.)  
Lecture 26 Immune responses to gastrointestinal helminths (24 Jan.)  
Lectures 27–30. Immunity to and evasion by tissue parasites (four lectures, beginning 26 Jan.)  
Lectures 31–33. Chemotherapy and resistance (three lectures, beginning 3 Feb.)  
Lecture 34–35. Biological control (two lectures, beginning 14 Feb.)  
Lecture 36. Vaccination (17 Feb.)

**Conservation Biology**

Course Organiser: Dr J. R. Flowerdew (email: j.r.flowerdew@zoo.cam.ac.uk)

This course consists of the following module from Part II Zoology (see p. 203).

**Conservation Biology**

Module Organiser – Dr M. Brooke

All lectures take place in the *Main Lecture Theatre, Department of Zoology*

**Biological Anthropology**

This course will consist of one paper chosen from Paper B3, B4 or B5 from Part IIb Biological Anthropology (see p. 220)

**Developmental Physiology**

Course Organiser: Dr J. Rogers (email: jhr11@cam.ac.uk)

This course will consist of lectures from NST Part II Physiology, Module Four (see p. 199)

**Medical Neurobiology**

Course Organiser: Dr J. Rogers (email: jhr11@cam.ac.uk)

This course consists of lectures from NST Part II Physiology, Module Six (see p. 201)

**Medicine, Ethics and Law**

Course Co-ordinator: Dr T. Lewens (email: tml1000@cam.ac.uk)

Further information may be obtained from the Web at <http://www.cam.ac.uk/medical-ethics>

PROF. J. SPENCER AND OTHERS

Medical Law. M. 4 *Law Faculty*The same continued. M. 4 *Law Faculty*

DR T. LEWENS AND OTHERS

Medical Ethics. Tu. 4 *Room A, Arts School, Bene't Street*

The same continued. Tu. 4

**Body and Society**

Course Organiser: Prof. B. Turner (email: bst22@cam.ac.uk)

This course will consist of lectures from Paper Soc10, Part II of the Social and Political Sciences Tripos (see p. 126)

**Systems Physiology**

Course Organiser: Dr J. Rogers (email: jhr11@cam.ac.uk)

This course consists of lectures from NST Part II Physiology, Module Three (see p. 199)