ANATOMY OPTION A: RESEARCH IN DEVELOPMENTAL BIOLOGY AND NEUROSCIENCE

Course Organiser: Dr R. C. Hardie (email: rch14@cam.ac.uk)
Course Website: www.anat.cam.ac.uk/teaching/anatomya.html

All teaching will be in the Anatomy Part II Seminar Room, the Experimental Psychology Room or Room 78, Department of Anatomy

Course units (Cu): Each unit comprises two 2/3 hour and one 3 hour session Thursdays & Fridays 9–11.30; Wednesdays 9-12

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<thead>
<tr>
<th>Date</th>
<th>Tutor/Organiser</th>
<th>Topic</th>
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<tbody>
<tr>
<td>26 Apr.</td>
<td>DR. R. ADAMS</td>
<td>Critique of Papers</td>
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<tr>
<td>2–4</td>
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<td>Note the early start to this course</td>
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<tr>
<td>3 May</td>
<td>DR. R. ADAMS</td>
<td>Experimental Design</td>
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<td>2–4</td>
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<td>DR. P. SCHOFIELD</td>
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<tr>
<td>10 May</td>
<td>DR. R. ADAMS</td>
<td>Experimental Design</td>
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<td>2–4</td>
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<td>DR. R. C. HARDIE</td>
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<tr>
<td>16 Feb.</td>
<td>DR. A. FERGUSON-SMITH</td>
<td>Epigenetic Control of Development. (23, 24 Feb., 1 Mar.)</td>
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<tr>
<td>23, 24 Feb.</td>
<td></td>
<td>DR. R. J. KEYNES AND DR. M. SPILLANTINI (Cu) Brain Degeneration and Repair. (2, 3, 8 Mar.)</td>
</tr>
<tr>
<td>1 Mar.</td>
<td>DR. A. WILKINS</td>
<td>Evolution and Development. (9, 10 Mar. 2–4)</td>
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<tr>
<td>16 Feb.</td>
<td>DR. R. C. HARDIE</td>
<td>Phototransduction. (19, 20, 25 Jan.)</td>
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<td>19, 20, 25 Jan.</td>
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<td>DR. P. SCHOFIELD</td>
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<tr>
<td>26 Apr.</td>
<td>DR. S. JONES</td>
<td>Critique of Papers (26 April, 10–12)</td>
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<td>26 April</td>
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<td>Experimental Design</td>
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<td>2–4</td>
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<td>DR. R. C. HARDIE</td>
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<tr>
<td>3 May</td>
<td>PROF. W. A. HARRIS</td>
<td>Experimental Design</td>
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<td>10–12</td>
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<td>DR. R. C. HARDIE</td>
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<td>17 May</td>
<td>DR. S. EDGLEY</td>
<td>Experimental Design</td>
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<tr>
<td>10–12</td>
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<td>DR. S. EDGLEY</td>
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</table>

Seminars: As Announced in the Department
ANATOMY OPTION B: HEALTH & DISEASE: INTEGRATING SCIENCE & SKILLS

Course Organiser: Professor M. H. Johnson (email: mhj@mole.bio.cam.ac.uk)
Course Website: www.anat.cam.ac.uk/teaching/anatomyb/

All teaching will be in the Anatomy Part II Seminar Room unless otherwise stated

The course consists of a series of workshops, lectures, seminars and problem-solving skills sessions around a framework of four modules:

Module 1: Professional Skills & Development
Module 2: Sexuality & Fertility
Module 3: Mental Health & Disease
Module 4: Genomics & the Future of Medicine

Workshops, Seminars and Journal Clubs. As announced in the Department, beginning 5 Oct.

ASTROPHYSICS

Course Website: www.ast.cam.ac.uk/teaching/undergrad/courseguide.html

All lectures will be delivered in the Raymond and Beverly Sackler Lecture Theatre, Hoyle Building, Institute of Astronomy unless otherwise stated

DR I. R. PARRY
Introductory Astrophysics Tu. Th. F. 11.15

DR C. J. CLARKE
Statistical Physics M. 11.15, Tu. Th. 10

PROF. G. P. EFSTATHIOU
Astrophysical Fluid Dynamics M. F. 9, W. 11.15

DR N. W. EVANS
Theory of Relativity M. W. F. 10

Computational Projects
DR N. NIKIFORAKIS AND OTHERS M. W. F. 2 (six lectures) MR 2

PROF. R. F. CARSWELL
Stellar Dynamics and Structure of Galaxies M. F. 9, W. 11.15

DR R. G. MCMAHON
Physical Cosmology M. 11.15, Tu. Th. 10

DR C. D. MACKAY
Topics in Contemporary Astrophysics Tu. Th. F. 11.15

DR P. C. HEWETT
Structure and Evolution of Stars M. W. F. 10
NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005  LENT 2006  EASTER 2006

BIOCHEMISTRY

BIOLOGICAL AND BIOMEDICAL SCIENCES: MAJOR SUBJECT BIOCHEMISTRY

Course Organiser: Prof. D. J. Ellar (email dje1@mole.bio.cam.ac.uk)
Course Website: www.bioc.cam.ac.uk/teaching/partii/

Lectures are given in the Department of Biochemistry, Downing Site building

The course starts with an introductory lecture by PROF. SIR TOM BLUNDELL at 9 a.m. on M. 3 October.

Core course lectures take place at 9 a.m. and 10.30 a.m. Option course lectures take place throughout the day in Lent Term. Detailed time-tables will be posted in the Department of Biochemistry.

The Biological and Biomedical Sciences (Major Subject Biochemistry) course consists of the core lectures in the Michaelmas Term and two options in the Lent Term.

Core lectures

1. PROF. E. D. LATE
   Aspects of Protein Structure: Genome to Proteome. (Five lectures, beginning 3 Oct.)
   Please note the early start to this course.
2. DR. M. WELCH
   Thermodynamics Refresher for Biochemists. (One lecture, 7 Oct.)
3. DR. K. WEISSMAN
   Chemistry Refresher for Biochemists. (One lecture, 7 Oct.)
4. DR. C. W. J. SMITH
   Eukaryotic mRNA Synthesis. (Five lectures, beginning 10 Oct.)
5. DR. C. J. HOWE
   Gene Expression in Plants. (Four lectures, beginning 10 Oct.)
6. DR. D. M. CARRINGTON
   Introduction to Problem-Based Bioinformatics Project. (One lecture, Oct. 10)
7. DR. D. M. CARRINGTON
   DNA Recombination in Genetic Exchange and Gene Expression. (Four lectures, beginning 17 Oct.)
8. PROF. G. P. C. SALMOND
   Bacterial Signalling Systems. (Four lectures, beginning 17 Oct.)
9. DR. T. R. HESKETH
   Signalling Pathways in Eukaryotic Cells. (Four lectures, beginning Oct. 21)
10. DR. P. DUPREE
    Protein Targeting to the ER. (Three lectures, beginning 21 Oct.)
11. DR. K. MIZUGUCHI
    Bioinformatics: Polypeptide Similarity, Families and Super-Families. (Two lectures, beginning 27 Oct.)
12. DR. A. GRACE
    Disease Genes: Function and Manipulation. (Three lectures, beginning 31 Oct.)
13. PROF. R. J. JACKSON
    Protein Synthesis and Translational Control. (Five lectures, beginning 31 Oct.)
14. DR. A. NEVES
    Molecular Imaging. (Three lectures, beginning 26 Oct.)
15. DR. D. OWEN
    G Protein-Based Signalling. (Four lectures, beginning 3 Nov.)
16. DR. K. WEISSMAN
    Enzyme Structure and Function. (Five lectures beginning 7 Nov.)
17. PROF. T. L. BLUNDELL
    G Protein-Based Signalling. (Two lectures, beginning 7 Nov.)
18. DR. A. JACKSON
    Protein Sorting. (Five lectures, beginning 11 Nov.)
19. PROF. J. O. THOMAS
    Protein-DNA Interactions and Gene Expression. Five lectures, beginning 14 Nov.)
20. DR. R. W. FARDANDEL
    Adhesive and Immune Receptor Signalling. (Four lectures, beginning 18 Nov.)
21. DR. S. H. MCLAUGHLIN
    Protein Folding in vivo. (Three lectures, beginning 21 Nov.)
22. DR. S. D. BELL
    Eukaryotic Chromosome Replication. (Three lectures, beginning 22 Nov.)
23. DR. G. C. BROWN
    Bioenergetics of the Cell. (Five lectures, beginning 28 Nov.)
24. DR. T. HUBBARD
    Bioinformatics: Large Scale Sequencing Projects. (Two lectures, beginning 28 Oct.)
25. DR. A. M. TOLKOVSKY
    Apoptosis, From Molecules to Function in Disease. (Three lectures, beginning 30 Nov.)

Options lectures

1. PROF. G. P. C. SALMOND AND OTHERS
   Bacterial Virulence and Antimicrobial Chemotherapy. (Fifteen lectures)
2. DR. R. W. BROADHURST AND OTHERS
   Proteins, Nucleic Acids and their Interactions. (Fifteen lectures)
3. PROF. P. F. LEADLAY
   Control of Gene Expression in Eukaryotes. (Fifteen lectures)
4. DR. F. S. KITTLE AND OTHERS
   Cardiovascular Molecular and Cellular Biology. (Fifteen lectures)
5. PROF. P. F. LEADLAY
   Enzyme Mechanisms and the Evolution of Enzyme Function. (Fifteen lectures)
6. DR. A. GRACE AND OTHERS
   Cardiovascular Molecular and Cellular Biology. (Fifteen lectures)
7. PROF. R. J. JACKSON
   Oncogenes, Tumour Suppressor Genes and Carcinogenesis. (Fifteen lectures)
8. DR. T. R. HESKETH AND OTHERS
   Regulation of the Eukaryotic Cell Cycle. (Fifteen lectures)
9. PROF. D. M. CARRINGTON
   Mitochondria and Bioenergetics. (Fifteen lectures)
10. DR. R. W. BROADHURST
    Oncogenes, Tumour Suppressor Genes and Carcinogenesis. (Fifteen lectures)
11. DR. A. M. TOLKOVSKY
    Perspectives in Molecular Neurobiology. (Fifteen lectures)
12. DR. N. J. GAY
    Medical Biochemistry. (Fifteen lectures)
13. DR. D. M. CARRINGTON
    Bacterial Virulence and Antimicrobial Chemotherapy. (Fifteen lectures)
14. DR. N. J. GAY
    Molecular Immunology. (Fifteen lectures)
15. DR. D. M. CARRINGTON
    Medical Biochemistry. (Fifteen lectures)
16. DR. R. W. BROADHURST
    Oncogenes, Tumour Suppressor Genes and Carcinogenesis. (Fifteen lectures)
17. DR. A. M. TOLKOVSKY
    Medical Biochemistry. (Fifteen lectures)
18. DR. N. J. GAY
    Molecular Immunology. (Fifteen lectures)

Data handling classes

2.30–4.00, 28 Oct., 3 Nov.


continued
All students offer a Major Subject, a Minor Subject and a dissertation.

**Major Subjects:** Unless marked with a *, Major Subjects take their lectures from the corresponding NST Part II subject.

- Biochemistry
- Genetics
- History and Sociology of Medicine*
- Mechanisms of Disease*
- Pathology
- Pharmacology
- Physiology
- Plant Sciences
- Psychology
- Zoology

**Minor Subjects:** Unless marked with a *, Minor Subjects take their lectures from the related NST Part II subject.

- Biology of Parasitism*
- Biological Anthropology*
- History of Science and Medicine
- Medicine, Ethics and Law*
- Medicine, Body and Society*
- Genetics
- Physiology

**BIOLOGICAL AND BIOMEDICAL SCIENCES**

Course Website: www.bio.cam.ac.uk/sbs/facbiol/bbs/index.html

MAJOR SUBJECTS

HISTORY AND SOCIETY OF MEDICINE

Course Organisers: Dr L. Kassell (HPS) (email: ltk21@cam.ac.uk) and Dr D. Weinberg (SPS) (email: dtw23@cam.ac.uk)

This course is offered jointly by the Departments of History and Philosophy of Science and the Faculty of Social and Political Sciences and consists of lectures from the following papers:

- Papers 7 and 8 of NST Part II History and Philosophy of Science (see p. 192)
- Papers Soc 10 and Int 5 of Part IIB of the Social and Political Sciences Tripos (see p. 122 & 124)

MECHANISMS OF DISEASE: FROM PROCESS TO PATIENT

Course Organisers: Dr J.H. Xuereb (email: jhx1000@cam.ac.uk) and Dr A. Ibrahim (email: aei2@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.

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**DR. J. XUEREB**

Introduction to course. 4 Oct.

An introduction to dissertations (Seminar) 4 Oct.***

**Infectious disease and Immunodeficiency**

*Note the early start to this course*

**DR. N. BROWN**

W. 5 Oct.: Sepsis and the host’s response to infection

Dr. T. Baglin

W. 5 Oct.: Disseminated intravascular coagulation (Case study)***

Dr. M. Farrington

Th. 6 Oct.: Pneumonia – racing against the escalator.

Prof. A. Lever

Th. 6 Oct.: Molecular biology of human immunodeficiency virus

Dr. M. Farrington and Dr. T. Wreghitt

F. 7 Oct.: Infection in the immunocompromised host (Case study)

**Tumour Biology**

*Note the early start to this course*

**DR. H. SIMPSON**

Tu. 17 Jan.: Thyroid cancer

Dr. M. Gurnell

Tu. 17 Jan.: Approach to the problem of an enlarged thyroid gland (Case study)

Dr. M. Arens

W. 18 Jan.: Familial predisposition to cancer: colorectal cancer.

Dr. J. H. Xuereb

W. 18 Jan.: Hypertension and neurofibromatosis (Case study)

Prof. C. Caldas

Th. 19 Jan.: Molecular biology of breast cancer

**Skin**

*Note the early start to this course*

**DR. J. STERLING**

M. 24 Apr.: Normal and abnormal skin structure

M. 24 Apr.: Dissertation Presentations (students) 1.30 p.m.

Tu. 25 Apr.: Skin as a renewable organ

Tu. 25 Apr.: Dissertation Presentations (students) 1.30 p.m.

W. 26 Apr.: Skin as an organ of immunity

W. 26 Apr.: Dissertation Presentations (students) 1.30 p.m.

Th. 27 Apr.: Disorders of the skin immune system

Th. 27 Apr.: Dissertation Presentations (students) 1.30 p.m.

F. 28 Apr.: Ehlers-Danlas syndrome (case study) (at 2 p.m.)

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*Seminar Room 9, Ground Floor, The Clinical School, Addenbrooke’s Hospital

**Seminar Room, First Floor, Department of Pathology

***Greaves Room, First Floor, Department of Pathology
### NATURAL SCIENCES TRIPOS, PART II (continued)

#### MICHAELMAS 2005

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<tr>
<th>Date</th>
<th>Topic</th>
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<td>1. Kunn</td>
<td>F. 7 Oct.: Electronic literature searches (Seminar) – group 1</td>
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<tr>
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<td>PROF. A. LEVER</td>
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<tr>
<td>M. 10 Oct.</td>
<td>Pathogenesis of AIDS</td>
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<tr>
<td>DR. A. CARMICHAEL</td>
<td>Tu. 11 Oct.: Immunological controls of HIV infection</td>
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<tr>
<td>I. Kunn</td>
<td>Tu. 11 Oct.: Electronic literature searches (Seminar) – group 2</td>
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<tr>
<td>DR. D. KUMARARATNE</td>
<td>W. 12 Oct.: Mechanisms of immunity to mycobacteria in humans</td>
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<tr>
<td>DR. J. H. XUEREB</td>
<td>Th. 13 Oct.: Immunodeficiency – molecular mechanisms I</td>
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<td>DR. D. KUMARARATNE</td>
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<td></td>
<td>Th. 13 Oct.: Immunodeficiency – molecular mechanisms II</td>
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<tr>
<td>DR. J. H. XUEREB</td>
<td>F. 14 Oct.: AIDS in mother and child (Case study)</td>
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<tr>
<td>PROF. A. LEVER</td>
<td>M. 17 Oct.: HTLV – infection and pathogenesis</td>
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<tr>
<td>PROF. M-Q. DU</td>
<td>M. 17 Oct.: How to assess a scientific paper (Seminar)</td>
</tr>
<tr>
<td>DR. D. KUMARARATNE</td>
<td>Tu. 18 Oct.: Vaccines against bacterial meningitis</td>
</tr>
<tr>
<td>PROF. A. LEVER</td>
<td>W. 19 Oct.: Microbial invasion of the central nervous system</td>
</tr>
<tr>
<td>PROF. A. MINSON</td>
<td>Th. 20 Oct.: The nature of prions</td>
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<tr>
<td>DR. J. H. XUEREB</td>
<td>F. 21 Oct.: Phenotypic spectrum of spongiform encephalopathy</td>
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#### LENT 2006

<table>
<thead>
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<tbody>
<tr>
<td>DR. A. CLOUERE</td>
<td>Th. 19 Jan.: A lump in the breast: a multidisciplinary approach to cancer (Case study)</td>
</tr>
<tr>
<td>DR. M. ARENDS</td>
<td>F. 20 Jan.: Infection and cancer: molecular biology of cervical cancer</td>
</tr>
<tr>
<td>PROF. A. GREEN</td>
<td>M. 23 Jan.: Leukaemia I: transcriptional regulation of haemopoiesis</td>
</tr>
<tr>
<td>DR. J. CRAIG</td>
<td>Tu. 24 Jan.: Bullous skin disease (Case study)</td>
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<tr>
<td>DR. J. H. BACON</td>
<td>Th. 26 Jan.: Coronary artery disease (Case study) [At 11.45 am following 10.30 am lecture]</td>
</tr>
<tr>
<td>PROF. V. P. COLLINS</td>
<td>F. 27 Jan.: Supervision</td>
</tr>
<tr>
<td>DR. J. H. XUEREB</td>
<td>M. 30 Jan.: Infectious endocarditis (Case study)</td>
</tr>
<tr>
<td>DR. A. WHITEHEAD</td>
<td>F. 27 Jan.: Ischaemic cardiomyopathy</td>
</tr>
<tr>
<td>DR. J. H. XUEREB</td>
<td>M. 30 Jan.: TBA</td>
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#### EASTER 2006

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<th>Date</th>
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<tr>
<td>DR. C. TAYLOR</td>
<td>Th. 31 Jan.: Histocompatibility</td>
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<tr>
<td>PROF. A. BRADLEY</td>
<td>W. 1 Feb.: Immunobiology of transplantation and rejection I</td>
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<tr>
<td>DR. A. IBRAHIM</td>
<td>F. 2 Feb.: Supervision</td>
</tr>
<tr>
<td>PROF. A. BRADLEY</td>
<td>Th. 2 Feb.: Immunobiology of transplantation and rejection II</td>
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<tr>
<td>F. 3 Feb.: Molecular basis of immunosuppression I</td>
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<tr>
<td>M. 6 Feb.: Molecular basis of immunosuppression II</td>
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<tr>
<td>DR. J. H. XUEREB</td>
<td>M. 6 Feb.: Dissertations: writing up (Seminar)***</td>
</tr>
<tr>
<td>PROF. A. BOLTON</td>
<td>Tu. 7 Feb.: Immunological tolerance in transplantation</td>
</tr>
<tr>
<td>DR. A. CHAUDHRY</td>
<td>Th. 9 Feb.: Long term outcome of transplantation</td>
</tr>
<tr>
<td>F. 10 Feb.: Neural repair and stem cells – I</td>
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<td>M. 13 Feb.: Neural repair and stem cells – II</td>
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### Transplantation

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<tr>
<td>DR. A. IBRAHIM</td>
<td>Th. 2 May: Atherosclerosis</td>
</tr>
<tr>
<td>DR. J. STERLING</td>
<td>Th. 2 May: Pathogenesis and management of leukaemia (Case study) [At 11.45 am following 10.30 am lecture]</td>
</tr>
<tr>
<td>PROF. V. P. COLLINS</td>
<td>M. 3 May: Pathobiology of intervention in coronary artery disease [At 10.30 am]</td>
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<tr>
<td>DR. M. GODDARD</td>
<td>W. 3 May: Cerebral gliomas: the pathway and molecular biology</td>
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<tr>
<td>DR. A. IBRAHIM</td>
<td>Th. 4 May: Clinical-anatomical correlation of pituitary adenoma (Case study)</td>
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<tr>
<td>DR. J. H. XUEREB</td>
<td>F. 5 May: Infectious endocarditis (Case study)</td>
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### Autoimmune disease and immunological malignancy

<table>
<thead>
<tr>
<th>Date</th>
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<tbody>
<tr>
<td>DR. J. BRADLEY</td>
<td>M. 24 Oct.: Vascular endothelium – physiology and pathophysiology</td>
</tr>
<tr>
<td>DR. A. EXLEY</td>
<td>M. 24 Oct.: The mucosal immune system [At 1.30 pm]</td>
</tr>
<tr>
<td>Tu. 25 Oct.: Lung defence: insight from clinical cases (Case Study) [At 10.30 am]</td>
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<tr>
<td>DR. R. TROZE</td>
<td>W. 26 Oct.: Lymphoma: an immunological perspective I</td>
</tr>
<tr>
<td>DR. J. H. XUEREB</td>
<td>Th. 27 Oct.: Lymphoma: an immunological perspective II</td>
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<tr>
<td>DR. A. IBRAHIM</td>
<td>Th. 27 Oct.: Hereditary angioneurotic oedema (Case study)</td>
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<tr>
<td>PROF. J. H. GASTON</td>
<td>F. 28 Oct.: The role of HLA antigens in the pathogenesis of arthritis</td>
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<td>F. 28 Oct.: T Lymphocytes and joint inflammation (Case study)</td>
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<td>M. 31 Oct.: Polyarthritis (Case study)</td>
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<tr>
<td>PROF. J. H. GASTON</td>
<td>Tu. 1 Nov.: Cytokines in arthritis – potential therapeutic targets</td>
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<tr>
<td>W. 2 Nov.: Infectious agents and arthritis: Lyme disease and reactive arthritis</td>
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<tr>
<td>DR. J. H. XUEREB</td>
<td>Th. 3 Nov.: The syndromes produced in renal injury (Case study) [At 10.30 am]</td>
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<tr>
<td>DR. K. G. SMITH</td>
<td>M. 7 Nov.: Systemic lupus erythematosus I</td>
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<tr>
<td>M. 7 Nov.: Systemic lupus erythematosus II [At 1.30 pm]</td>
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<tr>
<td>DR. J. H. XUEREB</td>
<td>Tu. 8 Nov.: Inflammation in the CNS</td>
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<tr>
<td>DR. A. IBRAHIM</td>
<td>Tu. 8 Nov.: Supervision</td>
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<tr>
<td>DR. J. H. XUEREB</td>
<td>Tu. 10 Nov.: Aetiology and pathogenesis of demyelinating diseases</td>
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<td>Th. 10 Nov.: Clinico-anatomical correlation in multiple sclerosis (Case study)</td>
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### Natural Sciences Tripos, Part II (continued)

<table>
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<tr>
<th>Date</th>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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<tbody>
<tr>
<td>F 11 Nov</td>
<td></td>
<td>DR B. COTTRELL</td>
<td>Infection &amp; immunity in inflammatory bowel disease</td>
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<td>F 11 Nov</td>
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<td>DR B. COTTRELL</td>
<td>Inflammatory bowel disease (Case study)</td>
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<td>PROF. K. CHATTERJEE</td>
<td>Endocrine and Metabolic Disease</td>
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<tr>
<td>Tu 15 Nov</td>
<td>1.30 pm</td>
<td>DR A. CHAUDHRY</td>
<td>Principles of nuclear hormone action</td>
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<tr>
<td>W 16 Nov</td>
<td>10.30 am</td>
<td>DR A. CHAUDHRY</td>
<td>Nuclear receptors in human disease</td>
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<td></td>
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<td>PROF. J. COMPSTON</td>
<td>Pathology of metabolic bone disease</td>
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<tr>
<td>Th 17 Nov</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>Bone cell physiology</td>
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<tr>
<td>M 21 Nov</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>Paget’s Disease (Case study)</td>
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<td></td>
<td></td>
<td>PROF. S. O’RAHILLY</td>
<td>Understanding human obesity</td>
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<tr>
<td>W 23 Nov</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>How insulin works and how it goes wrong</td>
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<tr>
<td>Th 24 Nov</td>
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<td>DR J. H. XUEREB</td>
<td>Mechanisms of renal damage in diabetes mellitus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>Fasting hypoglycaemia (Case study)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DR S. MIDDLETON</td>
<td>Gastrointestinal hormones and peptides</td>
</tr>
<tr>
<td>F 25 Nov</td>
<td></td>
<td>DR M. GURNELL</td>
<td>Carcinoid syndrome</td>
</tr>
<tr>
<td>Tu 29 Nov</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>Autoimmunity in the thyroid gland</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PROF. T. COX</td>
<td>The lysosome – gateway to treatment</td>
</tr>
<tr>
<td>W 30 Nov</td>
<td></td>
<td>DR V. P. COLLINS</td>
<td>Mitochondrial encephalomyopathies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DR D. O’DONOVAN</td>
<td>Peroxisomal disorders</td>
</tr>
<tr>
<td>Th 1 Dec</td>
<td></td>
<td>DR N. COLEMAN</td>
<td>Metabolic effects of cancer (Case study)</td>
</tr>
<tr>
<td>Th 2 Feb</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>Muscle weakness and wasting (Case study)</td>
</tr>
<tr>
<td>Tu 28 Feb</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>Supervision</td>
</tr>
<tr>
<td>Th 22 Nov</td>
<td></td>
<td>DR E. REID</td>
<td>Hereditary spastic paraplegia</td>
</tr>
<tr>
<td>W 23 Nov</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>Understanding human obesity</td>
</tr>
<tr>
<td>Th 24 Nov</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>Nuclear receptors in human disease</td>
</tr>
<tr>
<td>M 28 Nov</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>Pathology of metabolic bone disease</td>
</tr>
<tr>
<td>Th 29 Nov</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>Supervision</td>
</tr>
<tr>
<td>W 30 Nov</td>
<td></td>
<td>DR E. REID</td>
<td>Hereditary spastic paraplegia</td>
</tr>
<tr>
<td>Th 1 Dec</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>The kidney as an endocrine organ</td>
</tr>
<tr>
<td>Th 1 Mar</td>
<td>1.30 pm</td>
<td>DR J. H. XUEREB</td>
<td>Alzheimer’s disease and related disorders: tau pathology</td>
</tr>
<tr>
<td>Th 2 Mar</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>Alzheimer’s disease: amyloid deposition in the brain</td>
</tr>
<tr>
<td>F 3 Mar</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>Neurodegeneration &amp; the ubiquitin-proteosome system – I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DR R. BARKER</td>
<td>Tau-related dementia syndromes (Case study)</td>
</tr>
<tr>
<td>M 6 Mar</td>
<td></td>
<td>DR J. H. XUEREB</td>
<td>Neurodegeneration &amp; the ubiquitin-proteosome system – II</td>
</tr>
<tr>
<td>M 13 Mar</td>
<td></td>
<td>DR A. CHAUDHRY</td>
<td>Pathophysiology of progressive renal disease</td>
</tr>
<tr>
<td>M 13 Mar</td>
<td></td>
<td>DR J. BRADLEY AND DR A. CHAUDHRY</td>
<td>End-stage renal failure (Case study)</td>
</tr>
<tr>
<td>W 15 Mar</td>
<td></td>
<td>DR M. GODDARD</td>
<td>Pathophysiology of pulmonary microvasculature</td>
</tr>
<tr>
<td>W 15 Mar</td>
<td></td>
<td>DR R. ROSS-RUSSELL</td>
<td>Respiratory tract hypersensitivity</td>
</tr>
<tr>
<td>Th 16 Mar</td>
<td></td>
<td>DR A. IBRAHIM</td>
<td>Irreversible airway narrowing &amp; alveolar wall destruction</td>
</tr>
</tbody>
</table>
MINOR 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.

Lecture 1. Overview of developments. Basic morphology and life cycles
Lectures 2–8. Behavioural adaptations for transmission, recognition of the host
Lecture 9. Invertebrate responses to parasites
Lectures 10–11. Season and hypobiosis
Lecture 12. Endemic stability
Lectures 13–19. Zoonoses
Lecture 20. Season and hypobiosis
Lecture 21. Immune responses to arthropods
Lecture 22. Immune responses to gastrointestinal helminths

Lectures 25–29. Chemotherapy and resistance
Lecture 30–32. Alternate methods of control

MEDICINE, ETHICS AND LAW

Course Co-ordinator: Mr S. John (email: sjen22@cam.ac.uk)

Further information may be obtained from the Web at http://www.cam.ac.uk/medicalethics

The same continued. M4 Law Faculty

continued  >
### CHEMISTRY (OPTION A AND OPTION B)

**PHYSICAL SCIENCES: HALF SUBJECT CHEMISTRY**

Course Organiser: Dr J. H. Keeler (e-mail: jhk10@cam.ac.uk)  
Course Website: www-teach.ch.cam.ac.uk/

All lectures will be given in the *Department of Chemistry, Lensfield Road*

Students must register for the course in the *Department of Chemistry, Lensfield Road*, between 9 and 1 or 2 and 4 on Tu. 4 Oct.

A booklet containing details of the times of the lecture courses will be given out on registration. Others interested in the lecture courses can obtain a copy of this booklet on application to the Course Organiser. This information is also available from the website, www-teach.ch.cam.ac.uk/

All students must attend an introductory talk concerning the practical course at 12 noon on W. 5 Oct. in the *Pfizer Lecture Theatre*

### EXPERIMENTAL AND THEORETICAL PHYSICS

**PHYSICAL SCIENCES: HALF SUBJECT EXPERIMENTAL AND THEORETICAL PHYSICS**

Course Organiser: Dr W. Allison (e-mail: II-physics@phy.cam.ac.uk)  
Course Website: www.phy.cam.ac.uk/teaching/

Students offering **Option A** must take the whole of **course H** in the Michaelmas Term and 2 of the lecture courses in the Lent and Easter Terms. They must in addition take **course K**, and a suitable selection from the material of **courses J** and **S**.

Students offering **Option B** must take the whole of **course H** in the Michaelmas Term and either 3 or 4 of the lecture courses in the Lent and Easter Terms. In addition they must take a suitable selection from the material of **courses J** and **S**.

The material of **course J** is examined at the start of the term following that in which each block, TP1 and TP2, is given.

All students are recommended to attend the non-examinable **Course I**.

The course will begin with a meeting on the first Wednesday of Full Term (5 Oct.) at 9.30 a.m. in the *Pippard Lecture Theatre*.

Students taking Part II Physical Sciences and Half Subject Experimental and Theoretical Physics will take the Advanced Quantum Physics course in the Michaelmas term and one of the Quantum Condensed Matter Physics, Astrophysics, Particle and Nuclear Physics, and Soft Condensed Matter and Biophysics courses in the Lent and Easter terms. Candidates also take three units of further work selected from: the Computational Physics course, pre-approved Vacation Work, experiment E1 or course TP1, experiment E2 or course TP2, a Literature Review. Physics in Action (two units), and Physics Education (two units). Neither of the courses TP1 and TP2 may be taken unless Mathematics was offered in Part IB of the Natural Sciences Tripos. A prior knowledge of Physics equivalent to the material covered in Part IB Physics will be assumed.

Lectures are given at the *Cavendish Laboratory* (*West Cambridge*), in the *Pippard Lecture Theatre* unless otherwise stated.

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**Course H**  
**PROF. R. J. NEEDS**  
Thermal and Statistical Physics. Tu. Th. 10  
**PROF. D. A. RITCHIE**  
Advanced Quantum Physics. M. W. F. 9  
**DR N. R. COOPER**  
Relativity, Electrodynamics and Light. M. W. F. 10  
(First twenty lectures)  
**PROF. M. C. PAYNE, DR. P. D. HAYNES AND OTHERS**  
Computational Physics. Tu. Th. 9 (First eight lectures)  
Classes weekdays 2–5 (6 Oct. – 30 Nov.). Students attend one day per week

**Course I**  
**PROF. P. B. LITTLEWOOD**  
Soft Condensed Matter and Biophysics. M. Th. 9  
**PROF. S. F. GULL AND PROF. A. N. LASENBY**  
Astrophysics. Tu. F. 9  
**DR V. GIBSON**  
Particle and Nuclear Physics. W. F. 10  
**PROF. A. M. DONALD**  
The same continued. (First six lectures)

**Course J**  
**PROF. E. TERENTJEV AND DR. C. H. W. BARNES**  
Theoretical Physics TP1. Tu. Th. 12–1 (Twelve lectures beginning 11 Oct.). Tu. 2–4 (Four classes, 18 Oct., 1 Nov., 15 Nov., 29 Nov.)

**Course K**  
**PROF. S. F. GULL AND PROF. A. N. LASENBY**  
The same continued. (First six lectures)

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**Course Organiser:** Dr M. P. Hobson  
Concepts in Physics. Tu. Th. 10 (Ten lectures beginning 9 Feb.)

**THE STAFF OF THE CAVENDISH LABORATORY**  
Current Research Work in the Cavendish Laboratory (not examinable). See Part III Experimental and Theoretical Physics (p. 203)

**Course Organiser:** Dr B. R. Webber and Dr T. Duke  
Theoretical Physics TP2. Tu. Th. 12–1 (Twelve lectures, beginning 24 Jan.). Tu. 2–4 (Four classes, 31 Jan., 14 Feb., 28 Feb., 14 Mar.)

**Course Organiser:** Dr J. A. C. Bland and Dr J. R. Batley  
Physics in Action. F. 11.30 Mott Seminar Room  
Group Project Work. F. 2–4 Kyle Seminar Room
## NATURAL SCIENCES TRIPOS, PART II (continued)

### Course S

**Experiment E1. Registration** W. 9.30 (5 Oct.)

**Literature Review.**

**Physics Education.**

### M1: Chromosomes, Cell Cycle and Cancer

**Prof. D. Glover, Prof. M. Ashburner, Dr. C. Farr, Dr. J. Raff and Dr. M. Segal**

(Twenty-four lectures, beginning 6 Oct.)

### M2: Plant and Microbial Genetics

**Dr. D. Summers, Dr. P. Oliver, Dr. J. Archer and Dr. I. Furner**

(Twenty-four lectures, beginning 6 Oct.)

### M3: Cell Biology and Developmental Genetics

**Prof. A. Martinez-Arias, Prof. D. St Johnston, Dr. J. Ahringer and Dr. M. Zernicka-Goetz**

(Twelve lectures, beginning 11 Nov.)

### M4: Human Genetics and Genomics

**Dr. D. Macdonald, Dr. C. Farr, Dr. S. Russell and Dr. G. Micklem**

(Twelve lectures, beginning 11 Nov.)

### Long Reading Weekend. Dates to be announced

### Revisions seminars (Five sessions, dates to be announced)

The Biological and Biomedical Sciences (Major Subject Genetics) course consists of a choice of four out of the five modules outlined below. Minor Subjects consist of any of modules M2, M4 or M5.

**M1: Chromosomes, Cell Cycle and Cancer**

**Prof. D. Glover, Prof. M. Ashburner, Dr. C. Farr, Dr. J. Raff and Dr. M. Segal**

(Twenty-four lectures, beginning 6 Oct.)

**M2: Plant and Microbial Genetics**

**Dr. D. Summers, Dr. P. Oliver, Dr. J. Archer and Dr. I. Furner**

(Twenty-four lectures, beginning 6 Oct.)

**M3: Cell Biology and Developmental Genetics**

**Prof. A. Martinez-Arias, Prof. D. St Johnston, Dr. J. Ahringer and Dr. M. Zernicka-Goetz**

(Twelve lectures, beginning 11 Nov.)

**M4: Human Genetics and Genomics**

**Dr. D. Macdonald, Dr. C. Farr, Dr. S. Russell and Dr. G. Micklem**

(Twelve lectures, beginning 11 Nov.)

### GEOLOGICAL SCIENCES AND MINERAL SCIENCES

**PHYSICAL SCIENCES: HALF SUBJECT GEOLOGICAL SCIENCES**

Course Website: www.esc.cam.ac.uk/new/10/teaching/geology/ii-iii/courses.html

Students offering Option A (leading to the three year degree – Part IIA) must take two core courses in the Michaelmas Term and two options in the Lent and Easter Terms. They must in addition attend the Skills course S1 in the Michaelmas Term.

Students offering Option B (leading to Part IIB and to the four year degree – Part III) must take two core courses in the Michaelmas Term and three options in the Lent and Easter Terms. They must in addition attend the Skills course S1 in the Michaelmas Term.

Students offering Physical Sciences: Half Subject Geological Sciences should consult with the Department over the courses they will take.

<table>
<thead>
<tr>
<th>Core C1 Geophysics</th>
<th>Option 1 Basin Dynamics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prof. J. A. Jackson, Dr. F. Tilmann and Dr. D. P. McKenize</strong></td>
<td><strong>Dr. N. J. White and Others</strong></td>
</tr>
<tr>
<td>Convenor: Prof. J. A. Jackson</td>
<td>Convenor: Dr. N. J. White</td>
</tr>
<tr>
<td>Lectures. Tu. Th. 9 Harker Room</td>
<td>Lectures. Tu. Th. 9 Tilley Room</td>
</tr>
<tr>
<td><strong>Practicals. Tu. 10–12 Petrology Laboratory</strong></td>
<td><strong>Practicals. Tu. 10–11.30, Th. 10–11.30 Petrology Laboratory</strong></td>
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<thead>
<tr>
<th>Core C2 Petrology and Geochemistry</th>
<th>Option 2 Sedimentary Systems</th>
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</thead>
<tbody>
<tr>
<td><strong>Dr. T. J. B. Holland, Dr. A. Galy and Dr. S. Gibson</strong></td>
<td><strong>Dr. A. Galy and Dr. J. A. D. Dickson</strong></td>
</tr>
<tr>
<td>Convenor: Dr. T. J. B. Holland</td>
<td>Convenor: Dr. J. A. D. Dickson</td>
</tr>
<tr>
<td>Lectures. M. F. 10–12 Petrology Laboratory</td>
<td>Lectures. Tu. F. 2 Harker Room</td>
</tr>
<tr>
<td><strong>Practicals. M. F. 10–12 Petrology Laboratory</strong></td>
<td><strong>Practicals. Tu. F. 3–4.30 Petrology Laboratory</strong></td>
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<tr>
<th>Core C3 Sedimentology and Palaeontology</th>
<th>Option 3 Metamorphic and Igneous Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prof. J. N. McCave, Dr. N. Hovius and Dr. L. Harper</strong></td>
<td><strong>Dr. D. M. Pyle, Dr. T. J. B. Holland and Dr. J. Maclellan</strong></td>
</tr>
<tr>
<td>Convenor: Dr. N. Hovius</td>
<td>Convenor: Dr. D. M. Pyle</td>
</tr>
<tr>
<td>Lectures. W. 9, F. 12 Harker Room</td>
<td>Lectures. M. Th. 2 Harker Room</td>
</tr>
<tr>
<td><strong>Practicals. W. 10–12, F. 2–4 Palaeontology Laboratory</strong></td>
<td><strong>Practicals. M. Th. 3–4.30 Palaeontology Laboratory</strong></td>
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</table>

### Reading Week. Dates to be announced

### Revisions seminars (Eight revision sessions)
NATURAL SCIENCES TRIPOS, PART II (continued)

**MICHAELMAS 2005**

**Core C4 Mineralogy**
DR M. WELCH, PROF. M. A. CARPENTER AND DR R. J. HARRISON  
Convenor: Prof. M. A. Carpenter  
Lectures. Tu. W. 2 Harker 2 Room  
Practicals. W. Th. 3–4.30 IB Mineralogy Laboratory

**Core C5 Mineral Physics**
DR M. T. DOVE AND MR P. WELCH  
Convenor: Dr M. T. Dove  
Lectures. W. 9, F. 2 Harker 2 Room  
Practicals. W. 10–11.30, F. 3–4.30 IB Minerals Laboratory

**Skills Course S1**
DR N. H. WOODCOCK  
Convenor: Dr N. H. Woodcock  
M. Th. 2–5 Harker Room and Computer Room (first three weeks)

**Field Course to Greece** 3–10 Dec. 2004 or 6–14 Dec.  
PROF. J. A. JACKSON, DR N. HOVIUS, DR N. J. WHITE, DR A. GALY AND PROF. I. N. MCCAYE

**Option M3 Spectroscopic Methods**
DR I. FARNAN, DR M. ZHANG, DR G. LUMPKIN AND DR M. T. DOVE  
Convenor: Dr I. Farnan  
Lectures. M. F. 9  
Practicals. M. F. 10–11.30 IB Minerals Laboratory

**Option M4 Long Term Climate Change**
PROF. I. N. MCCAYE, PROF. M. J. BICKLE AND PROF. H. E. ELDERFIELD  
Convenor: Prof. H. E. Elderfield  
Lectures. M. 9, W. 2 Harker Room  
Practicals. M. 10–11.30, W. 3–4.30 Structural Laboratory

**Option M5 Evolutionary Palaeobiology**
DR N. J. BUTTERFIELD AND DR D.B. NORMAN  
Convenor: Dr N. J. Butterfield  
Lectures. W. F. 9 Harker Room  
Practicals. W. F. 10–11.30 Palaeontology Laboratory

**Option M6 High Pressure Mineralogy**
PROF. G. D. PRICE, PROF. M. A. CARPENTER, DR S. RIOS, DR E. ARTACHO AND DR M. WELCH  
Convenor: Prof. M. A. Carpenter  
Lectures. W. F. 9 Harker 2 Room  
Practicals. W. F. 10–11.30 IB Minerals Laboratory

**Option M7 Disordered Materials**
DR M. T. DOVE, DR I. FARNAN AND DR K. TRACHENKO  
Convenor: Dr I. Farnan  
Lectures. M. 9, W. 2 Harker 2 Room  

**Dissertation Seminar**
W. F. 4 (weeks 1–4)  
It is essential that students attend at least two of these seminars

**HISTORY AND PHILOSOPHY OF SCIENCE**

A detailed timetable and course handbook are available from the Department. Further details are available from hps-admin@lists.cam.ac.uk or on the web: www.hps.cam.ac.uk

Prof. Kusch and Dr Hopwood would like to see all Part II students taking HPS on Wednesdays 5 Oct. at 11 a.m. in Seminar Room 2, Department of History and Philosophy of Science.

All classes and seminars will be held in the History and Philosophy of Science Seminar Rooms, Free School Lane unless otherwise stated

**Primary Source Seminars**
*It is essential that students attend four seminars, three from the papers they are taking and one other.*

Paper 1: DR E. ROBSON  
Selections from S. Parpola (ed.), Letters from Assyrian and Babylonian Scholars (1990). Tu. 9 (weeks 1–4)

Paper 2: DR P. FARAJ, DR R. GASKELL AND DR E. ARTACHO  
Fontenelle (tr. Behn) A Discovery of New Worlds (1688). F. 4 (weeks 1–4)

Paper 3: DR J. ENDERSBY, DR P. WHITE AND OTHERS  
Charles Darwin, Origin of Species (1859). M. 4 (weeks 1–4)

Paper 4: DR S. JOHN  
Bas van Fraassen, The Scientific Image (1981), chapter 2. W. 4 (weeks 1–4)

Paper 5: PROF. M. KUSCH AND OTHERS  
John R. Searle, The Construction of Social Reality. F. 11 (weeks 1–4)

Paper 6: DR A. MAYER  
Sigmund Freud, The Interpretation of Dreams (1900), chapters 2–4. Th. 11 (weeks 1–4)

Paper 7: DR L. KAISELL  
Helkiah Crooke, Microcosmographia (1615), Book 4. F. 12 (weeks 1–4)

Paper 8: DR S. WILMOT  
‘The Geneticists’ Manifesto’. Tu. 2 (weeks 1–4)

Paper 9: PROF. N. JARDINE AND MR N. TOSSH  
A.D. Sokal, ‘Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity’ (1996). Tu. 3 (weeks 1–4)

Paper 10: DR J. AGAR  
Rachel Carson, Silent Spring (1962). Tu. 5 (weeks 1–4)

**Dissertation Seminar**
W. F. 4 (weeks 1–4)  
It is essential that students attend at least two of these seminars
### (Paper 1) Classical Traditions in the Sciences

Course Organisers: Dr. E. Robson, (e-mail: er264@cam.ac.uk), and Dr. L. Taub, (e-mail: lct1001@cam.ac.uk)

**DR E. ROBSON**  
Primary Source. Tu. 9 (weeks 1–4)  

DR. L. TAUB AND DR. L. KASSELL  
Instruments, Books and Collections. Tu. 11 (weeks 1–4)  

DR. L. TAUB, DR. C. SALAZAR, DR. A. IMHAUSEN, DR. S. CONNELL AND DR. A. DOODY  
Ancient Mediterranean Science. M. 2 (weeks 1–8)  

DR. E. ROBSON  
Centres of Excellence: Patronage and the Exact Sciences in the Middle East, 800BCE-1500CE. W. 9 (weeks 1–8)

### (Paper 2) Natural Philosophies: Renaissance to Enlightenment

Course Organisers: Dr. L. Kassell, (e-mail: ltk21@cam.ac.uk) (Michaelmas Term) and Prof. S. Schaffer, (e-mail: sjs16@cam.ac.uk) (Lent and Easter Terms)

**DR. P. FARA, DR. R. GASKELL AND DR. F. WILLMOTH**  
Primary Source. F. 4 (weeks 1–4)  

**DR. P. FARA, MR. S. MANDELBROTE AND PROF. S. SCHAFER**  
Natural Philosophy and Exact Sciences. Tu. 11 (weeks 5–8)  

**DR. L. KASSELL**  
Occult Philosophy. M. 10 (weeks 1–8)

### (Paper 3) Science, Industry and Empire

Course Organisers: Dr. J. Endersby, (e-mail: jje21@cam.ac.uk) (Michaelmas Term) and Prof. S. Schaffer, (e-mail: sjs16@cam.ac.uk) (Lent and Easter Terms)

**DR. J. ENDERSBY, DR. P. WHITE AND OTHERS**  
Primary Source. M. 4 (weeks 1–4)  

**DR. R. NOAKES AND DR. K. PRICE**  
The Workshop of the World: British Physical Sciences. F. 10 (weeks 1–8)  

**DR. J. ENDERSBY, MS S. QURESHI AND DR. P. WHITE**  
Life on Earth: Natural History and Biological Sciences. M. 3 (weeks 1–8)

### (Paper 4) Metaphysics, Epistemology and the Sciences

Course Organiser: Prof. P. Lipton, (e-mail: pl112@cam.ac.uk)

**MR. S. JOHN**  
Primary Source. W. 4 (weeks 1–4)  

**PROF. P. LIPTON**  
Explanation, Causation and Law. W. 12 (weeks 1–8)  

**PROF. M. KUSCH**  
Epistemology. M. 11 (weeks 1–8)  

**MR. N. TOSH**  
Pragmatism and Truth. W. 11 (weeks 1–4)

### (Paper 5) Science and Technology Studies

Course Organiser: Prof. M. Kusch, (e-mail: mphk2@cam.ac.uk)

**PROF. M. KUSCH**  
Primary Source. F. 11 (weeks 1–4)  

**DR. S. JANOFF**  
Civic Epistemology. Th. 11 & F. 11 (weeks 6&7)  
(The dates for these lectures are 10 and 11 November and 17 and 18 November)
### Session 1: History and Philosophy of Mind

**Course Organiser:** Prof. M. Kusch, (e-mail: mphk2@cam.ac.uk)

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Lecturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-8</td>
<td>History and Philosophy of Mind</td>
<td>Prof. M. Kusch</td>
</tr>
</tbody>
</table>

#### Primary Sources
- Tu. 11 (weeks 1–4)  
  **Dr. A. Maye**  
  **Primary Source.**

- Th. 12 (weeks 1–4)  
  **Dr. D. Thom**  
  **Psychology and Eugenics in the UK, 1869–1971.**

- F. 2 (weeks 5–8)  
  **Dr. A. Mayer**  
  **Rule Following.**

#### Paper 6
- **History and Philosophy of Mind**
- W. 2 (weeks 1–8)

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### Session 2: Modern Medicine and Biomedical Sciences

**Course Organiser:** Dr. L. Kassell, (e-mail: ltk21@cam.ac.uk)

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Lecturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4</td>
<td>Primary Source.</td>
<td>Dr. L. Kassell</td>
</tr>
<tr>
<td>5-8</td>
<td>Medicine and Society in Europe, 1250–1800.</td>
<td>Dr. L. Kassell and Others</td>
</tr>
<tr>
<td>2</td>
<td>Renaissance Anatomy.</td>
<td>Dr. S. Kusukawa</td>
</tr>
</tbody>
</table>

#### Primary Sources
- Tu. 2 (weeks 1–4)  
  **Dr. L. Kassell**  
  **Primary Source.**

- Th. 12 (weeks 1–4)  
  **Dr. E. Robson**  
  **Mesopotamian Medicine.**

- F. 12 (weeks 1–8)  
  **Dr. S. Kusukawa**  
  **Renaissance Anatomy.**

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### Session 3: Images of the Sciences

**Course Organiser:** Prof. N. Jardine, (e-mail: nj103@cam.ac.uk)

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Lecturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4</td>
<td>Primary Source.</td>
<td>Prof. N. Jardine</td>
</tr>
<tr>
<td>5-8</td>
<td>Ideologies of Science.</td>
<td>Prof. N. Jardine and Dr. C. Chimiso</td>
</tr>
<tr>
<td>1-8</td>
<td>Sources of Knowledge: Hume and Kant.</td>
<td>Dr. M. Frasca-Spada, Prof. N. Jardine and Alix Cohen</td>
</tr>
<tr>
<td>3</td>
<td>People and Pictures.</td>
<td>Dr. P. Farah</td>
</tr>
</tbody>
</table>

#### Primary Sources
- Tu. 3 (weeks 1–4)  
  **Prof. N. Jardine and Mr. N. Tosh**  
  **Primary Source.**

- Th. 3 (weeks 1–8)  
  **Prof. N. Jardine and Dr. C. Chimiso**  
  **Ideologies of Science.**

- Th. 12 (weeks 1–8)  
  **Dr. E. Lafferton**  
  **Making the Modern Body.**

- Tu. 10 (weeks 1–4)  
  **Mr. S. John**  
  **Berkeley and Positivism.**

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### Session 4: Science and Technology from the First World War

**Course Organiser:** Dr. J. Agar, (e-mail: ja310@cam.ac.uk)

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Lecturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4</td>
<td>Primary Source.</td>
<td>Dr. J. Agar</td>
</tr>
<tr>
<td>5-8</td>
<td>Science and Democracy.</td>
<td>Prof. M. Kusch</td>
</tr>
<tr>
<td>2</td>
<td>Making Modern Medicine.</td>
<td>Dr. D. Thom</td>
</tr>
<tr>
<td>1-8</td>
<td>Science and Warfare in Modern Iraq.</td>
<td>Dr. E. Robson</td>
</tr>
</tbody>
</table>

#### Primary Sources
- Th. 3 (weeks 1–8)  
  **Prof. N. Jardine**  
  **Histories of Science and their Uses.**

- Th. 10 (weeks 1–8)  
  **Dr. M. Frasca-Spada and Prof. N. Jardine**  
  **The same continued.**

- Tu. 9 (weeks 1–4)  
  **Mr. S. John**  
  **Risk.**

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### Additional Attention

Attention is drawn to courses announced by other authorities. Students are particularly advised to attend other relevant courses in the Faculties of History, Philosophy, and Social and Political Sciences.

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### Other Courses

- **Dr. N. Wright**  
  Latin for Beginners  
  M. T. Th. F. 5

- **Dr. P. Bursill-Hall**  
  Topics in the History of Mathematics  
  M. W. F 4 Centre for Mathematical Sciences Room 9

- **Dr. M. Bravo and Others**  
  Cultures of the field (times to be announced)

- **Prof. E. J. Craig**  
  Causality from Descartes to Hume. [Philosophy]

- **Dr. I. Marenbon**  
  Medieval Logic

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### Further Reading

- **Dr. E. Robson**  
  The Material Culture of Mathematics in Historical Perspective.  
  Th. 9 (weeks 1–8)

- **Prof. P. Lipton**  
  Topics in the Philosophy of Mind.  
  F. 10 (weeks 1–8)  
  (Mill Lane Lecture Rooms)

- **Dr. G. Berrington**  
  History of Psychopathology and Psychiatry  
  W. 2 (weeks 1–4)

- **Dr. J. Agar**  
  Turing and the History of Artificial Intelligence.  
  W. 2 (weeks 5–8)

- **Mr. M. Sprevak**  
  Thought and Computation.  
  W. 10 (weeks 1–4)

- **Dr. A. Cunningham**  
  Seventeenth and Eighteenth-Century Medicine.  
  F. 12 (weeks 1–8)

- **Mr. P. Jones**  
  Medicine and Communication, 1375–1640.  
  Tu. 2 (weeks 1–4)

- **Prof. Sir Geoffrey Lloyd and Dr. C. Salazar**  
  Medicine and Society in the Ancient World.  
  Th. 12 (weeks 1–8)

- **Dr. E. Lafferton**  
  Making the Modern Body.  
  M. 12 (weeks 1–4)

- **Dr. E. Lafferton**  
  History of Psychiatry.  
  M. 12 (weeks 5–8)

- **Dr. T. Buklijas**  
  Dissecting Anatomy.  
  Th. 2 (weeks 1–4)

- **Prof. N. Jardine**  
  Histories of Science and their Uses.  
  Th. 3 (weeks 1–8)

- **Dr. M. Frasca-Spada and Prof. N. Jardine**  
  The same continued.  
  Tu. 10 (weeks 1–4)

- **Mr. S. John**  
  Berkeley and Positivism.  
  Tu. 10 (weeks 5–8)

- **Dr. J. Agar, Dr. S. de Chadarevian, Dr. J. Endersby**  
  Science and Technology after 1945.  
  Th. 10 (weeks 1–8); F. 3 (weeks 1–4)

- **Dr. E. Robson**  
  Science and Warfare in Modern Iraq.  
  Th. 9 (weeks 1–8)

- **Dr. S. John**  
  Risk.  
  Tu. 9 (weeks 5–8)
Note the early start of this course.

Module 5: Learning, Memory and Cognition. M. Tu. 10

DR. J. MCCABE
Cellular Mechanisms of Learning and Memory. (Four lectures, 10–18 Oct.)

DR. W. WINTERS
Conditioning and Associative Learning. (Four lectures, 24 Oct. – 1 Nov.)

DR. L. SAKSIA
Computational Neuroscience I: Conditioning and Associative Learning. (Two lectures, 7, 8 Nov.)

DR. Z. SARVIA
Stress and the Brain: Effects of the Environment on Behaviour and Cognition. (Four lectures, 21–29 Nov.)

READING WEEK (14–18 Nov.)

Module 6: Computational Neuroscience. Tu. 12

DR. R. CARPENTER
Auditory Hair Cells. (Two lectures, 14, 16 Feb.)

DR. J. ALCANTARA
Auditory Processing in the Cochlea. (Six lectures, 28 Feb. – 16 Mar.)

READING WEEK (20–24 Feb.)

Module 7: Synaptic and Molecular Neurobiology. Tu. 12

DR. B. MCCABE
Synaptic Plasticity. (Three lectures, 1–10 Mar.)

DR. S. CHAWLA
Regulation of Gene Transcription. (Two lectures, 15–17 Mar.)

READING WEEK (20–24 Feb.)

Module 8: Developmental Neurobiology. M. Tu. 15

DR. P. RICHARDSON
Neural Degeneration and Repair. (Three lectures, 9–16 Mar.)

READING WEEK (20–24 Feb.)

Module 9: Cellular and Molecular Neurobiology. W. F. 9

DR. R. HARDIE
Ligand-gated Ion Channels. (Four lectures, 9, 11, 23, 25 Nov.)

DR. S. CHAWLA
Genomics of Neuronal Systems (Two lectures, 30 Nov. – 2 Dec.). W. F. 9

READING WEEK (14–18 Nov.)

Module 10: Control of Action. W. F. 10, unless otherwise stated

DR. B. HEIDWIG
Synaptic, Cellular and Network Properties. (Four lectures, 5–14 Oct.)

Note the early start of this course.

DR. D. WOLPERT
Human sensorimotor control. (Three lectures, 2, 4 Nov., 7 Nov. (M. 10)

DR. P. EVANS
Modulating a System. (Four lectures, 9, 11, 23, 25 Nov.)

READING WEEK (14–18 Nov.)

Module 11: Sensory Systems. Tu. 9, Th. 10

DR. R. HARDIE
Photoreceptors. (Four lectures, 6–18 Oct.)

PROF. E. B. KEVERNE
Development of Brain and Behaviour. (Three lectures, 16–23 Jan.)

Note the early start of this course.

DR. P. KIRKBRICK
Ischaemia, Excitotoxicity, and Stroke. (Two lectures, 26, 30 Jan.)

DR. M.-G. SPILLANTINI
Neural Degeneration. (Four lectures, 2–13 Feb.)

DR. R. BARKER
Neural Regeneration. (Four lectures, 16 Feb., 27 Feb – 6 Mar.)

DR. R. FRANKLIN
Glia Degeneration and Repair. (Three lectures, 9–16 Mar.)

READING WEEK (20–24 Feb.)

DR. P. THORN
Calcium Signalling in Neurones. (Three lectures, 18–25 Jan.)

Note the early start of this course.

PROF. D. COOPER
cAMP Signalling. (Four lectures, 27 Jan. – 8 Feb.)

DR. R. MCCABE
Synaptic Plasticity. (Three lectures, 10–17 Feb.)

DR. J. M. EDWARDSON
Mechanisms of Exocytosis. (Four lectures, 1–10 Mar.)

DR. S. CHAWLA
Regulation of Gene Transcription. (Two lectures, 15–17 Mar.)

READING WEEK (20–24 Feb.)

DR. M. HASTINGS
Neural Control of Circadian Rhythms. (Four lectures, 18–27 Jan.)

Note the early start of this course.

DR. S. EGGLESTON
Cerebellum. (Four lectures, 3, 8 Feb., 13 Feb. (M. 12) and 15 Feb.)

DR. R. CARPENTER
Neural Decisions. (Three lectures, 1–8 Mar.)

DR. S. JONES
Basal Ganglia. (Four lectures, 10 Mar., 13 Mar. (M. 12) and 15–17 Mar.)

READING WEEK (20–24 Feb.)

PROF. P. A. MCNAUGHTON
Pain. (Four lectures, 17–26 Jan.)

Note the early start of this course.

PROF. E. B. KEVERNE
Brain Mechanisms of Memory and Cognition. (Six lectures, 16, 23, 30 Jan., 6, 13, 27 Feb)

Zoology Main Lecture Theatre

Note the early start of this course.

DR. R. A. MCCARTHY
Cognitive Neuropsychology. (Eight lectures, 17, 24–31 Jan., 7, 14, 28 Feb., 7, 14 Mar.)

Zoology Main Lecture Theatre

Note the early start of this course.

DR. L. SAKSIA
Computational Neuroscience II: Memory and Cognition. (Two lectures, 6, 13 Mar.)

READING WEEK (20–24 Feb.)
All options. W. 3 (One lecture, 5 Oct.)

Introductory lecture
All options. W. 3 (One lecture, 5 Oct.) It is important that all students attend the introductory lecture.

Option A: Cellular and Genetic Pathology
Tu. Th. S. 9

Option Organiser: Dr N. Affara (email: na106@cam.ac.uk Tel: 33700)

DR I. FURNER, DR D. GRIFFIN, DR BLOT, DR N. AFFARA, DR J. AJIOKA, DR D. MACDONALD, DR M. HURLES AND DR A. SHARKEY

N.B. Some lectures are held at 11.30 or 12 noon

Part I: Genes, Genomes and Disease.
DR N. AFFARA, DR C. PRINT, DR A. SHARKEY AND DR A. PHILPOTT

Part II: Molecular Genetics and Pathology of Reproduction.

Option B: Immunology
Tu. Th. 5, S. 10.15

Option Organiser: Dr N. Holmes (email: nh106@cam.ac.uk Tel: 33871)


Option C: Microbial and Parasitic Disease
M. W. F. 9

Option Organiser: Dr I. B. Kingston (email: ibk1000@cam.ac.uk) Tel: 33330)

DR R. HAYWARD, DR G. FRASER AND PROF. V. KORONAKIS

Bacterial Disease and Pathogenicity.
DR D. BROWN, DR R. HAYWARD, DR V. KORONAKIS AND DR P. MASTROENI

Combating Bacterial Disease.
DR N. BROWN AND PROF. A. M. LEVER

Fungal Infections.
DR G. FRASER AND PROF. B. A. BLACKLAWS

Journal Research Seminars

Option D: Virology
M. W. F. 5

Option Organiser: Dr T. D. K. Brown (email: tdkb@mole.bio.cam.ac.uk Tel: 36917)

DR T. D. K. BROWN, DR S. WYNNE, DR P. DIGARD, DR J. GRAY, DR I. BRIERLEY, DR S. EFSTATHIOU AND DR J. SINCLAIR

Journal Research Seminars

Option E: Dynamics of Infectious Disease
Tu. Th. 9, Th. 10

Venue: Room FW26 William Gates Computer Laboratory Building

Option Organiser: Dr L. S. Tiley (email: lst21@cam.ac.uk Tel: 39554)

DR N. DAVIS-PYONSTER, DR J. WOOD, DR J. DALY, DR J. MCCAULEY, DR I. BROWN, DR D. MACKAY AND DR M. KEELING

Dynamics of Acute Virus Infections.
DR A. GRANT, DR T. HUMPHREY, DR P. MASTROENI, PROF. J. SLATER AND DR O. RESTIF

Dynamics of Acute Bacterial Infections.
DR O. PYBUS, DR L. TILEY, DR B. BLACKLAWS, DR I. MACKADLEY, DR B. CHARLSTON, DR A. DAVIDSON, DR R. SMITH, DR H. FIELD, DR S. GORDON, DR R. CLIFTON-HADELEY AND DR T. GOODCHILD

Chronic Persistent Infections.

IT Training
MS PHIPPS

DR A. PHILPOTT, PROF. A. H. WYLLIE, DR R. HESKETH, DR VENKITARAMAN, PROF. V. P. COLLINS, PROF. M.-Q. DU, DR A. BANNISTER, DR C. CALDAS, PROF. M. A. STANLEY, PROF. C. FFRENCH-CONSTANT, DR P. JONES AND DR C. WATSON

Part III: Defects in Cellular Growth and Differentiation: Cancer

DR N. HOLMES, DR B. A. BLACKLAWS, DR J. BONAME, DR C. PEACOCK AND DR S. EFSTATHIOU

DR J. AJIOKA, DR M. SHIRLEY, DR D. B. PALMER, DR F. RANDOW, DR G. BUTCHER AND DR A. MOFFETT

Major Protozoal Diseases.
PROF. D. DUNN, DR K. HOFFMAN, DR I. B. KINGSTON AND DR E. MICHAEL

Major Helminth Diseases.

Option F: Neurodevelopmental Disease and Genetic Disease

Option Organiser: Dr M. Booth (email: mbooth@mole.bio.cam.ac.uk)

DR D. D. BROWN, DR R. CLIFTON-HADLEY, DR S. GORDON, DR R. CLIFTON-HADLEY AND DR T. GOODCHILD

Chronic Persistent Infections.

DR S. CHARNOCK-JONES

Part IV: Angiogenesis

DR M. CLARK AND PROF. J. S. H. GASTON

Epidemiology.
DR H. DE KONING AND DR M. FIELD

Parasite Vaccines and Chemotherapy.

DR I. B. KINGSTON AND DR J. W. AJIOKA

Journal Research Seminars

(10–1)


DR D. ALEXANDER AND DR L. TILEY

Emerging Infections.
DR P. MELLOR AND DR L. TILEY

Dynamics of Arboviral Infections.
DR N. DAVIS-PYONSTER AND PROF. D. MASKELL

Principles of Pathogen Dynamics.
DR M. BOOTH

Modelling Disease Dynamics

DR D. SARGAN, DR R. KAO AND DR R. BUJDOSO

TSEs.
DR S. CHARNOCK-JONES

Part V: Neurodevelopmental Biology and Genetic Disease.

DR M. BOOTH

Epidemiology.
DR H. DE KONING AND DR M. FIELD

Parasite Vaccines and Chemotherapy.
PHARMACOLOGY

BIOLOGICAL AND BIOMEDICAL SCIENCES: MAJOR SUBJECT PHARMACOLOGY

Course Organiser: Dr J. M. Edwardson (email: jme1000@cam.ac.uk)
Course Website: www.phar.cam.ac.uk/teaching/tea_part2.html

The introductory session will be at 9 a.m., Tuesday, 4 Oct. in the Lecture Theatre, Department of Pharmacology. It is expected to last all morning with a break for coffee.

Lectures will be given in the Lecture Theatre, Department of Pharmacology

The Biological and Biomedical Sciences (Major Subject Pharmacology) course also consists of the lectures outlined below.

Pharmacology of Integrated Systems

DR C. R. HILEY
Cardiovascular Pharmacology. (Eight lectures, 6–24 Oct.) M. Tu. Th. 9

DR H. W. VAN VEEN
Resistance to Antibacterial, Antiparasitic and Anticancer Agents. (Three lectures, 6–13 Oct.) Tu. Th. 11

DR T. P. FAN
Pharmacology of Inflammation and Angiogenesis. (Six lectures, 18 Oct. – 3 Nov.) M. Th. 9

DR P. THORN
Gastrointestinal Pharmacology. (Three lectures, 25–31 Oct.) M. Tu. Th. 9

DR L. MACVINISH
Pharmacology of Cystic Fibrosis and the Lung Epithelium. (Four lectures, 1–8 Nov.) M. Th. 9

DR F. H. MARSHALL
Drug Discovery. (Three lectures, 10–14 Nov.) M. Th. 9

PROF. M. J. WARING AND PROF. V. K. K. CHATTERJEE
Drugs, Receptors and DNA (Six lectures, 8–24 Nov.) M. Th. 11

DR R. M. HENDERSON
Cholesterol, Diabetes and Obesity (Seven lectures, 17 Nov; 30 Nov; 22 Nov–1 Dec.) M. Tu. Th. 9

Molecular and Cellular Pharmacology

PROF. P. A. MCNAUGHTON
Cellular and Molecular Aspects of Pain. (Four lectures, 5–12 Oct.) M. W. F. 10

DR S. B. HLADKY
Voltage-Sensitive Ion Channels. (Four lectures, 5–14 Oct.) W. F. 9

DR H. W. VAN VEEN
Carriers and Pumps as Targets for Drug Development. (Four lectures, 14–21 Oct.) M. W. F. 10

DR S. CHAWLA
Calcium Channels. (Two lectures, 19–21 Oct.) W. F. 9

DR J. M. YOUNG
Analysis of Drug-Receptor Interactions. (Five lectures, 24 Oct. – 2 Nov.) M. W. F. 10

PROF. R. P. IRIYE
Phosphoinositide Derived Messengers. (Four lectures, 4–11 Nov.) M. W. F. 10

DR J. KÖNIG
Ligand-Gated Ion Channels (Four lectures, 9, 11, 23, 25 Nov.) W. F. 9

DR A. GENAZZANI
Excitatory Amino Acids. (Two lectures, 14–16 Nov.) M. W. 10

PROF. C. W. TAYLOR
G-proteins Signalling Pathways. (Four lectures, 18–25 Nov) M. W. F. 10

DR P. J. RICHARDSON
Genomics of Neuronal Systems (Two lectures, 30 Nov. –2 Dec.) W. F. 9

PROF. C. W. TAYLOR
Calcium Signalling in Neurones. (Three lectures, 1–8 Feb.) W. F. 9

Note the early start to this course.

DR L. RODERICK
Calcium Signalling. (Two lectures, 27–30 Jan.) M. F. 10

PROF. D. COOPER
cAMP Signalling. (Four lectures, 18–27 Jan.) W. F. 9

DR B. MCCABE
Synaptic Plasticity (Three lectures, 10–17 Feb.) W. F. 9

DR J. M. EDWARDSON
Mechanisms of Exocytosis. (Four lectures, 1–10 Mar.) M. F. 9

DR J. M. EDWARDSON
Mechanisms of Endocytosis. (Two lectures, 13–14 Mar.) M. T. 9

DR S. CHAWLA
Regulation of Gene Transcription. (Two lectures, 15–17 Mar.) W. F. 9

continued >
The Biological and Biomedical Sciences (Major Subject Physiology) course consists of lectures from the modules below. Students can offer either modules 1, 2, 4 and 5, or modules 1, 2, 3 and 6. Three Minor Subjects are also offered, consisting of the lectures of either Modules 3, 4 or 6.

Common Module
Module organiser: Dr Michael J. Mason
These sessions are open to all NST students unless otherwise stated.

NST Orientation Day
W. 5 Oct. Main Physiology Lecture Theatre

Later sessions:
DR A. SILVER
NST: Introduction to Scientific Writing. (One lecture, 11 Oct.) M. 9 Bryan Matthews Room

DR A. SILVER
BBS: Introduction to Scientific Writing. (One lecture, 13 Oct.) W. 2 Bryan Matthews Room

Other Sessions to be confirmed

Module 1: Sensory Systems  W. Th. 9 unless otherwise stated
Venue: (To be confirmed: Bryan Matthews Room)
Module organiser: Dr I. M. Winter

DR H. R. MATTHEWS
Phototransduction. (Four lectures, 12, 19, 26 Oct., 2 Nov.)

PROF. A. C. CRAWFORD
Peripheral Auditory System. (Four lectures, 13, 20, 27 Oct., 3 Nov.)

DR I. M. WINTER
Central Auditory System. (Four lectures, 9, 10, 16, 17 Nov.)

TBA
Seminar. (Three seminars, 23, 24, 30 Nov.)

Module 2: Motor Systems  F. 9, 11 unless otherwise stated
Venue: (To be confirmed: Physiology Lecture Theatre 3)
Module organiser: Dr H. R. Matthews

PROF. C.-L.-H. HUANG
Activation of Skeletal Muscle. (Four lectures, F. 9, 7, 14 Oct.; F. 11, 7, 14 Oct.)

DR A. PELAH
Visuomotor Adaptation and Control. (Three lectures, F. 9, 21 Oct.; F. 11, 21, 28 Oct.)

PROF. A. C. CRAWFORD
Muscle Spindles. (Three lectures, F. 9, 28 Oct., 4 Nov.; M. 9, 31 Oct.)

PROF. R. N. LEMON
Corticospinal Organisation. (Four lectures, F. 9, 11, 25 Nov.; F. 11, 4, 18 Nov.)

Module 3: Motor Systems  F. 9, 11 unless otherwise stated
Venue: (To be confirmed: Bryan Matthews Room)
Module organiser: Dr H. R. Matthews

DR D. J. TOLHURST
Information Coding in Sensory Systems. (Two lectures, 19, 25 Jan.)

PROF. R. D. PATTERSON
Higher Auditory Processing. (Four lectures, 26 Jan., 1, 2, 8 Feb.)

DR D. J. TOLHURST
The Visual Cortex. (Four lectures, 9, 15, 16, 22 Feb.)

PROF. H. B. BARLOW
Higher Visual Processes. (Three lectures, 23 Feb., 1, 2 Mar.)

DR N. J. INGHAM
Mechanisms of Sound Localisation. (Two lectures, 8, 9 Mar.)

TBA
One seminar. (15 Mar.)

DR H. R. MATTHEWS
Long-latency Reflexes. (Four lectures, F. 9, 20, 27 Jan., 3, 10 Feb.)

DR S. EDGLEY
Cerebellum. (Four lectures, F. 11, 20, 27 Jan., 3, 10 Feb.)

PROF. J. C. ROTHWELL
Cortical and Subcortical Control of Movement. (Six lectures, F. 9, 24 Feb., 3, 10 Mar., E. 11, 24 Feb., 3, 10 Mar.)
Module 3: Systems Physiology  W. F. 10 unless otherwise stated
Venue: (To be confirmed: Physiology Lecture Theatre 3)
Module Organiser: Dr S. O. Sage

DR R. J. BARNES
Cardiovascular Responses to Stress. (Four lectures, 7, 12, 14, 19 Oct.)

DR J. C. D. HICKSON
Exocrine Pancreas. (Two lectures, 21, 26 Oct.)

DR S. O. SAGE
Osmoregulation. (Three lectures, 28 Oct., 2, 4 Nov.)

DR N. W. MORRELL
Pulmonary Circulation. (Two lectures, 9, 11 Nov.)

PROF. J. T. FITZSIMONS
Angiotensin, Thirst, Sodium Appetite and Hypertension. (Five lectures, 16, 18, 23, 25, 30 Nov.)

Module 4: Developmental Physiology  Th. F. 12 unless otherwise stated
Venue: (To be confirmed: Bryan Matthews Room)
Module Organiser: Dr A. J. Forhead

DR A. J. FORHEAD
Development of Fetal Organs. (Four lectures, 6, 7, 13, 14 Oct.)

DR D. A. GIUSSANI
Fetal Cardiovascular Development. (Three lectures, 20, 21, 27 Oct.)

DR S. K. L. ELLINGTON
Embryogenesis. (Four lectures, 3, 4, 10, 11 Nov.)

DR W. H. COLLEDGE
Transgenesis. (Four lectures, 17, 18, 24, 25 Nov.)

Module 5: Cellular Physiology  M. 10, Tu. 9, Th. 11 unless otherwise stated
Venue: (To be confirmed: Bryan Matthews Room)
Module Organiser: Dr C. J. Schwiening

DR MICHAEL J. MASON
Techniques lectures: Fluorescence Measurements of Ion Activities. (Two lectures, 10, 11 Oct.)

DR V. L. LEW
PMCA Thermodynamics. (Three lectures, 17, 18, 24 Oct.)

DR C. J. SCHWIENING
Confocal Microscopy. (One lecture, 25 Oct.)

PROF. C. L-H. HUANG
Voltage-Gated Ion Channels. (Three lectures, 31 Oct., 1, 7 Nov.)

DR H. P. C. ROBINSON
Synaptic Mechanisms. (One lecture, 8 Nov.) Three more lectures on this topic follow in the Lent Term

DR M. P. MABAUT-SMITH
Calcium Signalling. (Four lectures, 14, 15, 17, 21 Nov.)

PROF. R. C. THOMAS
Intracellular pH Regulation. (Two lectures, 22, 28 Nov.)

PROF. R. C. THOMAS
pH Effects on Calcium. (One lecture, 29 Nov.)

PROF. J. COMPSTON
Bone Physiology. (Two lectures, 25, 27 Jan.)

PROF. A. L. FOWDEN
Growth and Metabolism of the Fetus. (Four lectures, 19, 20, 26, 27 Jan.)

PROF. D. I. BRADLEY
Chronic Renal Failure. (Two lectures, 3, 8 Feb.)

PROF. D. B. DUNGER
Diabetes Mellitus. (Two lectures, 10, 15 Feb.)

DR S. O. SAGE
Renal Autoregulation. (Two lectures, 17, 22 Feb.)

DR G. S. H. YEO
Genetics of Obesity. (Three lectures, 24 Feb., 1, 3 Mar.)

DR J. FIRTH
Acute Renal Failure. (Three lectures, 8, 10, 15 Mar.)

PROF. A. L. FOWDEN
Fetal Adrenal Gland. (One lecture, 2 Feb.)

DR D. A. GIUSSANI
Parturition. (One lecture, 3 Feb.)

DR D. A. GIUSSANI
Fetal Breathing Movements. (One lecture, 9 Feb.)

PROF. M. A. H. SURANI
Developmental Biology. (Four lectures, 10, 16, 17, 23 Feb.)

DR A. J. FORHEAD
Fetal Thyroid Gland. (One lecture, 24 Feb.)

DR A. J. FORHEAD
Glucocorticoids in Fetal Maturation. (Two lectures, 2, 3 Mar.)

DR A. J. FORHEAD AND DR S. E. OZANNE
Intrauterine Programming of Adult Disease. (Two lectures, 9, 10 Mar.)

DR P. WOODING
Electron Microscopy. (One lecture, 23 Jan.)

DR S. O. SAGE
Store-Mediated Calcium Entry. (Three lectures, 24, 30, 31 Jan.)

DR C. J. SCHWIENING
pH Microdomains. (Three lectures, 6, 7, 13 Feb.)

DR J. H. ROGERS
Signal Transduction in Neural Development. (One lecture, 14 Feb.)

DR H. P. C. ROBINSON
Synaptic Mechanisms. (Three lectures, 20, 21, 27 Feb.)

DR J. W. FAWCETT
Neural Development. (Three lectures, 28 Feb., 6, 7 Mar.)
### Module 6: Medical Neurobiology

**Venue:** (To be confirmed: Physiology Lecture Theatre 3)

Module organiser: Dr J. H. Rogers

**DR R. TASKER**

Acute Neurotoxicity. (Three lectures, 6, 11, 13 Oct.)

**PROF. C. L.-H. HUANG**

Neurological Imaging. (Two lectures, 18, 20 Oct.)

**PROF. J. D. PICKARD**

Stroke, Intracranial Pressure, and CNS Injury. (Two lectures, 25, 27 Oct.)

**DR J. H. ROGERS**

Neural Regeneration. (Four lectures, 1, 3, 8, 10 Nov.)

**DR M.-G. SPILLANTINI**

Neural Degeneration. (Three lectures, 15, 17, 29 Nov.)

**DR R. FRANKLIN**

Demyelination and Remyelination. (Two lectures, 22, 24 Nov.)

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### Module L1: Development of Plants and Fungi

Module Organiser: Dr David Hanke

**DR J. M. DAVIES, DR J. HASELOFF AND DR D. E. HANKE**

M. W. F. 9 (Twenty-four lectures, beginning 7 Oct.)

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### Module L2: Plant Responses to the Environment

Module Organiser: Dr Edmund Tanner

**DR E. V. J. TANNER, DR R. DAVENTОР, PROF. H. GRIFFITHS, DR J. HIBBERT AND DR D. A. COOMES**

M. W. F. 10 (Twenty-four lectures, beginning 20 Jan.)

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### Module L3: Plant Genes and Organelles

Module Organiser: Prof. John Gray

**DR A. SMITH, DR C. HOWE, PROF. J. GRAY, DR K. LILLEY AND DR P. DUPREE**

Tu. Th. 10, W 11 (Twenty-four lectures, beginning 19 Jan.)

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### Module L4: Frontiers in Microbial Physiology and Ecology

Module Organiser: Dr Keith Johnstone

**DR K. JOHNSTONE, DR A. TUNNACLIFFE, DR J. M. DAVENTOR AND DR A. N. OTHER**

M. W. F. 12 (Twenty-four lectures, beginning 20 Jan.)
### PLANT SCIENCES (continued)

The modules below may also be offered in Part II Plant Sciences (Part II Zoology modules):

<table>
<thead>
<tr>
<th>Population Biology</th>
<th>Conservation Biology</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interdepartment Module</strong></td>
<td><strong>Interdepartmental Module</strong></td>
</tr>
<tr>
<td>Module Organiser: Dr A. Manica</td>
<td>Module Organiser: Dr A. Balmford</td>
</tr>
<tr>
<td>DR A. MANICA, DR D. SMITH, DR W. AMOS, DR R. JOHNSTONE, DR S. DALL AND DR D. COOMES</td>
<td>DR M. BROOKE, DR I. HODGE, DR W. AMOS, DR D. COOMES, DR R. GREEN, DR E. TANNER, DR J. O’SULLIVAN AND DR A. BALMFORD</td>
</tr>
<tr>
<td>M. W. F. 5 (Twenty-four lectures, beginning 7 Oct.)</td>
<td>M. W. F. 4 (Twenty-four lectures, beginning 20 Jan.)</td>
</tr>
<tr>
<td>All lectures to take place in the Main Zoology Lecture Theatre.</td>
<td>All lectures to take place in the Main Lecture Theatre.</td>
</tr>
</tbody>
</table>

### Aquatic Ecology

**Department of Zoology**

Module Organiser: Dr D. Aldrige

DR M. BROOKE, DR D. ALDRIDGE, DR R. BARNES AND PROF. A. CLARKE

M. W. F. 11 (Twenty-four lectures, beginning 7 Oct.)

### Statistics for Part II Biologists

The following non-examined module is compulsory in Part II Plant Sciences:

**Statistics**

DR B. J. MCCABE

(Ten lectures, 3–13 Oct.) Large Lecture Theatre, Department of Plant Sciences

Please note early start of course.

### Practical work

(Ten classes) M. W. F. 10–12 or 3–5 (3, 5, 7 Oct.); M. W. F. 3–5 (10, 12, 14, 17 Oct.) The Titan Teaching Rooms, New Museums Site

Please note early start of course.

### PSYCHOLOGY

**BIOLOGICAL AND BIOMEDICAL SCIENCES: MAJOR SUBJECT PSYCHOLOGY**

Course Organiser: Dr K. C. Plaisted (email: kcp1000@cam.ac.uk)

Course Website: [www.psychol.cam.ac.uk/pages/undgrad.html#Courseb](http://www.psychol.cam.ac.uk/pages/undgrad.html#Courseb)

Lectures will be held in the Lecture Theatre, Department of Experimental Psychology unless otherwise stated.

The Biological and Biomedical Sciences (Major Subject Psychology) course consists of the lectures below.

<table>
<thead>
<tr>
<th>General Introduction</th>
<th>Specialised Issues in Data Analysis and Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR M. R. F. AITKEN</td>
<td>PROF. J. D. MOLLON</td>
</tr>
<tr>
<td>Statistics</td>
<td>Writing a Project Report</td>
</tr>
<tr>
<td>W. Th. F. 2 (Six lectures, 6–20 Oct.)</td>
<td>Th. 5 (One class, 9 Feb.)</td>
</tr>
<tr>
<td>Practical Classes</td>
<td>Experimental Design</td>
</tr>
<tr>
<td>M. 2–4 (Two classes, 10, 17 Oct.), W. 2–4 (One class, 26 Oct.)</td>
<td>Th. 2 (One class, 16 Feb.)</td>
</tr>
<tr>
<td>Advanced Statistics</td>
<td>Vision</td>
</tr>
<tr>
<td>W. Th. 2 (Four lectures, 16–24 Nov.)</td>
<td>Tu. 9 (Eight lectures, 17 Jan.–14 Feb., 28 Feb.–14 Mar.)</td>
</tr>
<tr>
<td>Practical Classes</td>
<td>Practical Classroom</td>
</tr>
<tr>
<td>M. 2–4 (Two classes, 21, 28 Nov.)</td>
<td>PROF. M. P. HAGGARD</td>
</tr>
<tr>
<td>Practical Classroom</td>
<td>Measurement Theory and Qualitative Methods</td>
</tr>
<tr>
<td>PROF. M. P. HAGGARD</td>
<td>Tu. 5 (Four meetings, 8–29 Nov.)</td>
</tr>
<tr>
<td>Writing Perception</td>
<td>Specialised Issues in Data Analysis and Interpretation</td>
</tr>
<tr>
<td>M. 11 (Four lectures, 16 Jan.–6 Feb.)</td>
<td>Th. 5 (Four lectures, 17 Jan.–7 Feb.)</td>
</tr>
<tr>
<td>Speech Perception</td>
<td>Note the early start of this course.</td>
</tr>
<tr>
<td>M. 11 (Four lectures, 16 Jan.–6 Feb.)</td>
<td>Note the early start of this course.</td>
</tr>
<tr>
<td>LD. M. MIOZZO</td>
<td>Note the early start of this course.</td>
</tr>
<tr>
<td>Hearing</td>
<td>LD. M. MIOZZO</td>
</tr>
<tr>
<td>Tu. 9 (Eight lectures, 16 Dec., 16 Jan.–13 Feb.)</td>
<td>Language, Mind and Brain</td>
</tr>
<tr>
<td>W. 11 (Eight lectures, 12 Dec.)</td>
<td>M. 12 (Eight lectures, 16 Jan.–13 Mar.)</td>
</tr>
<tr>
<td>Note the early start of this course.</td>
<td>Note the early start of this course.</td>
</tr>
<tr>
<td>DR G. J. DIGIROLAMO</td>
<td>DR I. P. L. MCLAREN</td>
</tr>
<tr>
<td>Attention and Control</td>
<td>Learning, Memory and Cognition.</td>
</tr>
<tr>
<td>M. 11 (Eight lectures, 10 Oct.)</td>
<td>Tu. 12, Th. 9 (Fourteen lectures, 17 Jan.–16 Feb., 28 Feb.–9 Mar.)</td>
</tr>
<tr>
<td>Note the early start of this course.</td>
<td>Note the early start of this course.</td>
</tr>
<tr>
<td>DR G. J. DAVIS</td>
<td>DR I. P. L. MCLAREN</td>
</tr>
<tr>
<td>Visual Cognition</td>
<td>Connectionism.</td>
</tr>
<tr>
<td>M. 12 (Eight lectures, 10 Oct.)</td>
<td>M. 9 (Seven lectures, 16 Jan.–13 Feb., 27 Feb.–6 Mar.)</td>
</tr>
<tr>
<td>Note the early start of this course.</td>
<td>Note the early start of this course.</td>
</tr>
</tbody>
</table>

**continued >**
NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

ZOOLOGY
Course Organiser: Dr H. Skaer (email: h.skaer@zoo.cam.ac.uk)

M1 Topics in Vertebrate Evolution
Module Organiser: Dr J. A. Clack

DR J. CLACK, DR A. FRIDAY, DR H. BLOM, DR L. NOÈ, DR M. WILKINSON, DR S. E. EVANS, DR P. BARRETT, DR E. RAYFIELD, DR A. R. MILNER AND DR A. C. MILNER

M. W. F. 10 (Twenty-four lectures, beginning 7 Oct.)

M2 Aquatic Ecology
Module Organiser: Dr D. Aldridge

DR M. BROOKE, DR D. ALDRIDGE, DR R. BARNES AND PROF. A. CLARKE

M. W. F. 11 (Twenty-four lectures, beginning 7 Oct.)

M3 Population Biology
Module Organiser: Dr A. Manica

DR A. MANICA, DR D. SMITH, DR W. AMOS, DR R. JOHNSTONE, DR S. DALL AND DR D. COOMES

M. W. F. 5 (Twenty-four lectures, beginning 7 Oct.)

M4 Neural Mechanisms of Behaviour
Module Organiser: Dr B. Hedwig

PROF. S. LAUGHLIN, PROF. M. BURROWS, DR B. HEDWIG, DR B. MCCABE, PROF. E. B. KEVERNE AND PROF. C. M. BATE

Tu. Th. Sa. 11 (Twenty-four lectures, beginning 6 Oct.)

M5 Behaviour
Module Organiser: Prof. E. B. Keverne

PROF. P. BATESON, DR B. MCCABE, PROF. E. B. KEVERNE, DR N. EMERY AND DR N. MUNDY

Tu. Th. Sa. 10 (Twenty-four lectures, beginning 6 Oct.)

M6 Cell Dynamics and Communication
Module organiser: Dr H. Skaer

DR J. RAFF, PROF. M. ROBINSON, PROF. P. LUZIO, DR J. VINCENT, PROF. P. SIMPSON, DR H. BAYLIS AND DR H. SKAER.

M. W. F. 4 (Twenty-four lectures, beginning 7 Oct.)

M7 Control of Cell Growth and Genome Stability
Module Organiser: Prof. S. Jackson

DR J. PINES, PROF. S. P. JACKSON, DR J. RAFF, DR M. JACKMAN, DR J. FALCK, DR M. MADINE, DR T. KRUDE AND DR T. LITTLEWOOD

M. W. F. 9 (Twenty-four lectures, beginning 7 Oct.)

L1 Mammalian Evolution and Faunal History
Module Organiser: Dr A. E. Friday

DR A. E. FRIDAY, DR E. M. WESTON AND DR R. C. PREECE

M. W. F. 10 (Twenty-four lectures, beginning 20 Jan.)

L2 Conservation Biology
Module Organiser: Dr A. Balmford

DR M. BROOKE, DR R. JOHNSTONE, DR R. KILNER, PROF. T. H. CLUTTON-BROCK AND DR W. FOSTER

Tu. Th. Sa. 10 (Twenty-four lectures, beginning 19 Jan.)

All lectures to take place in the Main Lecture Theatre.

L3 Behavioural Ecology
Module Organiser: Dr R. A. Johnstone

DR A. RAFFORD, DR R. JOHNSTONE, DR R. KILNER, PROF. T. H. CLUTTON-BROCK AND DR W. FOSTER

Tu. Th. Sa. 10 (Twenty-four lectures, beginning 19 Jan.)

All lectures to take place in the Main Lecture Theatre.

L4 Animal Energetics: the cost of living
Module Organiser: Prof. C. P. Ellington

PROF. C. ELLINGTON, DR T. WEST, PROF. L. PECK AND PROF. A. CLARKE

Tu. Th. Sa. 11 (Twenty-four lectures, beginning 19 Jan.)

L5 Genes, Genomes and Animal Evolution
Module organiser: Prof. M. Akam

PROF. M. AKAM, DR W. AMOS, DR A. FRIDAY, DR M. TELFORD AND DR N. MUNDY

M. W. F. 11 (Twenty-four lectures, beginning 20 Jan.)

L6 Developmental Biology
Module Organiser: Prof. P. Simpson

PROF. P. SIMPSON, DR H. SKAER, DR H. BAYLIS, DR J. PALACIOS, DR C. ALONSO AND DR N. GOMPEL

M. W. F. 5 (Twenty-four lectures, beginning 20 Jan.)

L7 Control of Gene Expression
Module Organiser: Dr T. Krude

DR T. KRUDE, DR M. TORRES-PADILLA, DR P. HURD, DR A. BANNISTER, DR I. DOWNS, DR D. SCADDELL, DR H. BAYLIS, DR C. SMITH, DR I. PALACIOS AND PROF. R. JACKSON

M. W. F. 9 (Twenty-four lectures, beginning 20 Jan.)

First nine lectures in the Department of Zoology; the following fifteen lectures take place in the Department of Biochemistry.

L10 Human Biology
Module Organiser: Prof. T. H. Clutton-Brock

PROF. T. H. CLUTTON-BROCK, PROF. F. B. KEVERNE, DR A. FRIDAY, DR M. BROOKE, DR B. MCCABE, DR R. JOHNSTONE AND DR N. MUNDY

M. W. F. 10 (Seven lectures, beginning 28 Apr.)

SPECIAL NO. 1 LECTURE-LIST–MICHAELMAS TERM 2005 201
continued >