

**UNIVERSITY OF CAMBRIDGE : DEPARTMENT OF PATHOLOGY  
NATURAL SCIENCES TRIPOS  
PART II PATHOLOGY 2011 - 2012**

**CELLULAR & GENETIC PATHOLOGY**

**Organiser: Prof Nabeel Affara (email: [cgp-organiser@path.cam.ac.uk](mailto:cgp-organiser@path.cam.ac.uk), telephone: 33700)**

Lectures will be given in the **Pathology Seminar Room\*** or **Lecture Theatre#** at Tennis Court Road unless stated otherwise.

**MICHAELMAS TERM 2011**

W	Oct	5	3 pm		Introduction to Part II #	G L Smith
<b>Cells, Tissues and Stem cells</b>						
Thu	Oct	6	9 am	1	Cell morphology *	D'Avino
Sat	Oct	8	9 am	2	Tissue morphology *	Watson
Tue	Oct	11	9 am	3	Cell Cycle Regulation I #	Turner
			2-4 pm		Bibliographic IT training †	Kuhn
Thu	Oct	13	9 am	4	Cell Cycle Regulation II #	Turner
			2-4 pm		Bibliographic IT training †	Kuhn
Fri	Oct	14	2-4 pm		Bibliographic IT training †	Kuhn
Sat	Oct	15	9 am	5	Mechanics and control of cell division I #	D'Avino
Mon	Oct	17	2-4 pm		Bibliographic IT training †	Kuhn
Tue	Oct	18	9 am	6	Mechanics and control of cell division II #	D'Avino
			2-4 pm		Bibliographic IT training †	Kuhn
Thu	Oct	20	9 am	7	Life and death of cells I #	Kreuzaler
			2-4 pm		Bibliographic IT training †	Kuhn
Sat	Oct	22	9 am		<i>No lecture</i>	
Tue	Oct	25	9 am	8	Life and death of cells II #	Watson
Thu	Oct	27	9 am	9	Stem cells and cell fate I *	Rawlins
Sat	Oct	29	9 am	10	Stem cells and cell fate II *	Rawlins
Tue	Nov	1	9 am	11	Stem Cells and Pulmonary Disease *	Rawlins
Thu	Nov	3	9 am	12	Tissue Engineering/Regenerative Medicine *	Campbell
			10.15 am	13	Stem Cells and Lineage Commitment *	Khaled
Sat	Nov	5	9 am		<i>No Lecture</i>	
Tue	Nov	8	9 am	14	Stem cells and cancer *	Stingl
			10.15 am	15	Cell fate and cell number control in spermatogenesis *	Ellis
<b>Genome Organisation and its Regulation</b>						
Thu	Nov	10	9 am	16	Organisation of complex genomes#	Skinner
			12 noon	17	Variation in DNA #	Sargent
Sat	Nov	12	9 am	18	Genome projects and genomic approaches to disease *	Affara
Tue	Nov	15	9 am	19	Mapping genes by parametric and non-parametric models I (Greaves Room)	Blott
			10.15 am	20	Mapping genes by parametric and non-parametric models II (Greaves Room)	Blott
Thu	Nov	17	9 am	21	Applications of SNPs to dissect the role of genome variation in disease *	Sargent
Sat	Nov	19	9 am		<i>No lecture</i>	
Tue	Nov	22	9 am	22	Processes of genomic evolution#	Skinner
Thu	Nov	24	9 am	23	Chromatin structure and expression I *	Bannister
			10.15 am	24	Chromatin structure and expression II *	Bannister
Sat	Nov	26	9 am		<i>No Lecture</i>	

Tue	Nov	29	9 am	25	Chromosomal studies and gene mapping in normal and disease states I*	Griffin
			12 noon	26	Chromosomal studies and gene mapping in normal and disease states II*	Griffin
Thu	Dec	1	9 am	27	DNA methylation and gene activity*	Constancia

‡ Bibliographic IT training will be held in the University Library. Students need only to attend one of the sessions. Please complete the form available at <https://www.surveymonkey.com/s/path-october2011> to select the session you will attend.

## LENT TERM 2012

### CELLULAR & GENETIC PATHOLOGY

Lectures will be given in the Pathology Lecture Theatre at Tennis Court Road unless stated otherwise.

<b>The Molecular Biology of Cancer</b>						
Tue	Jan	17	9.00 am	28	An overview of cancer #	Edwards
					<b>Oncogenic pathways and tumour suppressors</b>	
Thu	Jan	19	9.00 am	29	Tumour suppressors #	D'Avino
Sat	Jan	21	9.00 am	30	Oncogenic pathways I #	Caffarel
Tue	Jan	24	9.00 am	31	Oncogenic pathways II #	Watson
					<b>Genetic instability and telomeres</b>	
Thu	Jan	26	9.00 am	32	Genetic Instability I*	Edwards
Sat	Jan	28	9.00 am	33	Genetic Instability II#	Edwards
Tue	Jan	31	9.00 am	34	Genetic Instability III#	Edwards
Thu	Feb	2	9.00 am	35	Models of Chromosomal Instability #	D'Avino
Sat	Feb	4	9.00 am	36	Cell senescence and telomeres *	Narita
					<b>Aspects of human cancers</b>	
Tue	Feb	7	9.00 am	37	Techniques for finding cancer mutations *	Collins
Thu	Feb	9	9.00 am	38	Mutation patterns in brain cancer *	Collins
Sat	Feb	11	9.00 am	39	Haematopoietic cancers : Lymphoma *	Ming Du
Tue	Feb	14	9.00 am	40	Genomic approaches to cancer *	Carroll
Thu	Feb	16	9.00 am	41	Nuclear receptors in cancer *	Carroll
Sat	Feb	18	9.00 am	42	microRNAs in cancer *	Watson
Tue	Feb	21	9.00 am	43	Molecular epidemiology of cancer *	Collins
Thu	Feb	23	9.00 am	44	Mechanisms of viral induced cancer *	Laman
Sat	Feb	25	9.00 am	45	Epigenetics in cancer *	Vire
Tue	Feb	28	9.00 am	46	The tumour microenvironment *	Pensa
					<b>Cancer Models</b>	
Thu	Mar	1	9.00 am	47	Models of cancer I *	Turner
Sat	Mar	3	9.00 am	48	Models of cancer II *	Turner
					<b>Mendelian and non-mendelian inheritance in disease</b>	
Tue	Mar	6	9.00 am	49	Genotype-phenotype correlations in single gene disorders I: cystic fibrosis *	Rubinsztein
			10.30 am	50	Genotype-phenotype correlations in single gene disorders II: the LDL receptor *	Rubinsztein
Thu	Mar	8	9.00 am	51	Genotype-phenotype correlations in single gene disorders V: connective tissue disorders *	Richards
Fri	Mar	9	9.00 am	51	Genotype-phenotype correlations in single gene disorders III: disease caused by unstable DNA *	Rubinsztein
			10.30 am	52	Genotype-phenotype correlations in single gene disorders IV: disease caused by unstable DNA *	Rubinsztein
Sat	Mar	10	9.00 am		<i>No Lecture</i>	
Tue	Mar	13	9.00 am	54	Insights into genomic imprinting from mouse models *	Constancia
Thu	Mar	15	9.00 am	55	Non-mendelian inheritance and evidence for genomic	Murrell

					imprinting *	
			10-15 am	56	Genomic imprinting and human disease *	Murrell

### EASTER TERM 2012

Genome evolution and disease						
Tue	Apr	24	9.00 am	57	Sex chromosome evolution: structural considerations *	Ellis
Thu	Apr	26	9.00 am	58	Sex chromosome evolution: functional specialisation *	Ellis
Sat	Apr	28	9.00 am		<i>No Lecture</i>	
Tue	May	1	9.00 am	59	Genome dynamics and disease I *	Hurles
			10.15 am	60	Genome dynamics and disease II *	Hurles
Thu	May	3	9.00 am	61	Influence of disease on genome evolution: the MHC *	Kaufman
Sat	May	5	9.00 am		<i>No Lecture</i>	
Tue	May	8	9.30 am - 5.00 pm		Project Presentations *	

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Seminars will be held at Tennis Court Road.

### MICHAELMAS TERM 2011

Mon	Oct	17	2.00 – 4.00 pm	Molecular approaches to cell and tissue biology ( <i>Greaves Room</i> )	Prof N Affara Dr Carole Sargent Dr Ben Skinner Dr Peter Ellis
Mon	Nov	14	2.00 – 4.00 pm	Methods in cell biology: fluorescence and cell culture technologies *	Dr Dave Nelson and Dr Jonathan Campbell
Mon	Nov	21	2.00 – 4.00 pm	Using Bioinformatics Resources *	Prof N Affara Dr Carole Sargent Dr Ben Skinner Dr Peter Ellis
Mon	Nov	28	2.00 – 4.00 pm	Genetic Problems – Pedigree Analysis *	Prof N Affara

## LENT TERM 2011

Mon	Jan	23	2.00 – 4.00 pm	Hot Topic Non-coding RNA (ncRNA) *	Prof N Affara
Mon	Feb	27	2.00 – 4.00 pm	Invasion and Metastasis	Dr P Edwards
Mon	Mar	5	2.00 – 4.00 pm	Data handling paper session 1 *	Dr Carole Sargent Dr Peter Ellis
Mon	Mar	12	2.00 – 4.00 pm	Data handling paper session 2 *	(Cancer group)