

**UNIVERSITY OF CAMBRIDGE : DEPARTMENT OF PATHOLOGY
NATURAL SCIENCES TRIPOS
PART II PATHOLOGY 2012 - 2013**

CANCER & GENETIC DISEASES

Organiser: Prof Nabeel Affara (email: cgd-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 2012

Wed	Oct	3	3 pm		Introduction to Part II #	G L Smith
Life and Death of Cells and Tissues						
Thu	Oct	4	9 am	1	Cell morphology *	D'Avino
Sat	Oct	6	9 am	2	Tissue morphology *	D'Avino
Tue	Oct	9	9 am	3	Cell Cycle Regulation I #	Laman
Thu	Oct	11	9 am	4	Cell Cycle Regulation II #	Laman
Sat	Oct	13	9 am	5	Mechanics and control of cell division I #	D'Avino
Tue	Oct	16	9 am	6	Mechanics and control of cell division II #	D'Avino
Thu	Oct	18	9 am	7	Life and death of cells I #	Kreuzaler
Sat	Oct	20	9 am	8	Life and death of cells II #	Kreuzaler
Tue	Oct	23	9 am	9	Stem cells and cell fate I *	Jones
Thu	Oct	25	9 am	10	Stem cells and cell fate II *	Jones
Sat	Oct	27	9 am	11	Stem Cells and Skin *	Jones
Tue	Oct	30	9 am	12	Stem Cells and Lineage Commitment *	Khaled
Thu	Nov	1	9 am	13	Stem cells and cancer *	Jones

Sat	Nov	3	9 am	14	Stem cells and cancer *	Stingl
Tue	Nov	6	9 am	15	Cell proliferation and differentiation in the testis *	Ellis
Wed	Nov	7	2 pm	16	Tissue Engineering / Regenerative Medicine #	Campbell
How Genomes Function, Malfunction and Change						
<i>Organisation and mapping of the genome</i>						
Thu	Nov	8	9 am	17	What makes a genome? *	Skinner
			12 noon	18	How do genomes evolve? *	Skinner
Sat	Nov	10	9 am	19	How do genomes differ? *	Sargent
Tue	Nov	13	9 am	20	What chromosome studies tell us about disease *	Griffin
			10 am	21	Why chromosome position matters in disease *	Griffin
Thu	Nov	15	9 am	22	Single Nucleotide Polymorphisms (SNPs) in genetic disease *	Sargent
Sat	Nov	17	9 am		NO LECTURE	
Tue	Nov	20	9 am	25	Integrating genomic approaches to disease *	Affara
Thu	Nov	22	9 am	26	Next generation sequencing approaches to rare diseases I *	Hurles
			10 am	27	Next generation sequencing approaches to rare diseases II *	Hurles
<i>Linking Molecular Function to Disease Presentation: Genotype/Phenotype Correlations</i>						
Tue	Nov	27	9 am	28	Allelic heterogeneity in single gene disorders: Cystic fibrosis *	Rubinsztein
			10 am	29	The LDL receptor *	Rubinsztein
Wed	Nov	28	4 pm	30	Connective tissue disorders #	Richards
Fri	Nov	30	2 pm	31	Unstable DNA in neurodegenerative disease I *	Rubinsztein
			3 pm	32	Unstable DNA in neurodegenerative disease II *	Rubinsztein

LENT TERM 2013

<i>Chromatin regulation in normal and diseased states</i>						
Tue	Jan	15	9 am	33	Chromatin structure and expression #	Bannister
Thu	Jan	17	9 am	34	Long-range regulation of gene transcription *	Bannister
Sat	Jan	19	9 am	35	DNA methylation and gene activity *	Constancia
Tue	Jan	22	9 am	36	Genomic imprinting: lessons from mouse models *	Constancia
Thu	Jan	24	9 am	37	Non-Mendelian inheritance and evidence for genomic imprinting *	Murrell
Sat	Jan	26	9 am	38	Genomic imprinting and human disease *	Murrell
Tue	Jan	29	9 am	39	Chromosomal and whole-genome epigenetics *	Ellis
<i>Genome evolution and disease</i>						
Thu	Jan	31	9 am	40	Sex and the single Y: the rock'n'roll chromosome? *	Ellis
Tue	Feb	5	9 am	41	Sex chromosome specialisation and disease *	Ellis
Thu	Feb	7	9 am	42	Disease and genome evolution: the MHC *	Kaufman
The Molecular and Cell Biology of Cancer						
<i>Oncogenic pathways and tumour suppressors</i>						
Mon	Feb	11	2 pm	23	Mapping disease genes for simple disorders *	Affara
Mon	Feb	11	3 pm	24	Mapping disease genes for complex disorders *	Sargent
Tue	Feb	12	9 am	43	Tumour suppressors *	D'Avino
Thu	Feb	14	9 am	44	Oncogenic pathways I #	Caffarel
Sat	Feb	16	10.15 am	45	Oncogenic pathways II #	Caffarel
<i>Genetic instability and telomeres</i>						
Tue	Feb	19	9 am	46	Genetic Instability I #	D'Avino
Thu	Feb	21	9 am	47	Genetic Instability II #	D'Avino
Sat	Feb	23	9 am	48	Cell senescence and telomeres #	Narita

Tue	Feb	26	9 am	49	Hereditary Cancer I *	Pharoah
Thu	Feb	28	9 am	50	Hereditary Cancer II *	Pharoah
<i>Aspects of human cancers</i>						
Sat	Mar	2	9 am	51	Techniques for finding cancer mutations *	Collins
Tue	Mar	5	9 am	52	Mutation patterns in brain cancer *	Collins
Wed	Mar	6	2 pm	53	Haematopoietic cancers: Lymphoma *	Ming Du
Thu	Mar	7	9 am	54	Genomic approaches to cancer *	Carroll
Fri	Mar	8	2 pm	55	Nuclear receptors in cancer *	Carroll
Sat	Mar	9	9 am	56	Molecular epidemiology of cancer *	Collins
Tue	Mar	12	9 am	57	Paediatric Cancer I *	Coleman
Thu	Mar	14	9 am	58	Paediatric Cancer II *	Coleman

EASTER TERM 2013

Aspects of human cancers (cont.)						
Tue	Apr	23	9 am	59	Mechanisms of viral induced cancer *	Laman
Thu	Apr	25	9 am	60	Epigenetics in cancer *	Vire
Tue	Apr	30	9 am	61	The tumour microenvironment *	Pensa
Cancer Models						
Tue	Apr	30	10.15 am	62	Models of Cancer I *	Turner
Thu	May	2	9 am	63	Models of Cancer II LT	Turner
Final Year Projects						
Tue	May	7	9.30 am – 2 pm		Project Presentations *	

**UNIVERSITY OF CAMBRIDGE: DEPARTMENT OF PATHOLOGY
NATURAL SCIENCES TRIPOS
PART II PATHOLOGY 2012-2013**

CANCER & GENETIC DISEASES

Organiser: Prof Nabeel Affara (email: cgd-organiser@path.cam.ac.uk, telephone: 33700)

Seminars will be held at Tennis Court Road.

MICHAELMAS TERM 2012

Mon	Oct	15	2.00 – 4.00 pm	Molecular approaches to cell and tissue biology *	Prof N Affara Dr Carole Sargent Dr Ben Skinner Dr Peter Ellis
Mon	Nov	12	2.00 – 4.00 pm	Methods in cell biology: fluorescence and cell culture technologies *	Dr Dave Nelson and Dr Jonathan Campbell
Mon	Nov	19	2.00 – 4.00 pm	Using Bioinformatics Resources *	Prof N Affara Dr Carole Sargent Dr Ben Skinner Dr Peter Ellis
Mon	Nov	26	2.00 – 4.00 pm	Genetic Problems – Pedigree Analysis *	Prof N Affara

LENT TERM 2013

Mon	Jan	21	2.00 – 4.00 pm	Hot Topic Non-coding RNA (ncRNA) *	Prof N Affara
Mon	Feb	25	2.00 – 4.00 pm	Invasion and Metastasis *	TBC
Mon	Mar	4	2.00 – 4.00 pm	Data handling paper session 1 *	Dr Carole Sargent Dr Peter Ellis

EASTER TERM 2013

Mon	May	13	10.00 - 12.00 pm	Data handling paper session 2 *	Dr P D'Avino
-----	-----	----	------------------	---------------------------------	--------------

Bibliographic IT training will run at 2 different venues: the Medical Library, Addenbrooke's Site and Kanthack & Nuttall Library, Department of Pathology. Students need only to attend one of the sessions. Please complete the form available at

<https://www.surveymonkey.com/s/BiblioSession-Part2Path-2012>

to select the session you will attend.