

## Research Publications

The following pages list the publications produced by the research groups and core facilities working at the Cambridge Research Institute. As the CRI only opened in 2007, some of the research described in these publications was not completed at the CRI. However, the research described is part of a continuum of work now being pursued by research groups at the Institute.

### James Brenton (page 10)

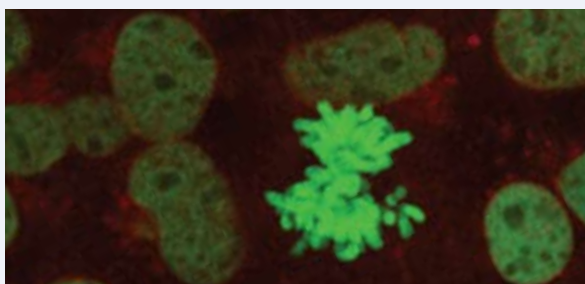
Functional Genomics of Ovarian Cancer Laboratory

#### Primary Research Papers

Ito Y, Koessler T, Ibrahim AE, Rai S, Vowler SL, Abu-Amero S, Silva AL, Maia A-T, Huddleston JE, Uribe-Lewis S, Woodfine K, Jagodic M, Nativio R, Dunning A, Moore G, Klenova E, Bingham S, Pharoah PD, Brenton JD, Beck S, Sandhu MS, Murrell A. Somatically acquired hypomethylation of IGF2 in breast and colorectal cancer. *Human Molecular Genetics* 2008; 17:2633-43

Swanton C, Szallasi Z, Brenton JD, Downward J. Functional genomic analysis of drug sensitivity pathways to guide adjuvant strategies in breast cancer. *Breast Cancer Research* 2008; 10:214

Zahra MA, Tan LT, Priest AN, Graves MJ, Arends M, Crawford RA, Brenton JD, Lomas DJ, Sala E. Semiquantitative and quantitative dynamic contrast-enhanced magnetic resonance imaging measurements predict radiation response in cervix cancer. *International Journal of Radiation Oncology, Biology, Physics* 2008; Nov 17 [Epub ahead of print]



### Kevin Brindle (page 12)

Molecular Imaging (MRI and MRS) Laboratory

#### Primary Research Papers

Gallagher FA, Kettunen MI, Day SE, Hu D-E, Ardenkjær-Larsen JH, Zandt R, Jensen PR, Karlsson M, Golman K, Lerche MH, Brindle KM. Magnetic resonance imaging of pH *in vivo* using hyperpolarized <sup>13</sup>C-labelled bicarbonate. *Nature* 2008; 453:940-3

Gallagher FA, Kettunen MI, Day SE, Lerche MH, Brindle KM. <sup>13</sup>C MR spectroscopy measurements of glutaminase activity in human hepatocellular carcinoma using hyperpolarised <sup>13</sup>C-labelled glutamine. *Magnetic Resonance Medicine* 2008; 60:253-7

Krishnan AS, Neves AA, de Backer MM, Hu DE, Davletov B, Kettunen MI, Brindle KM. Detection of cell death in tumours by using MR imaging and a gadolinium-based targeted contrast agent. *Radiology* 2008; 246:854-62

#### Other Publications

Brindle KM. New approaches for imaging tumour responses to treatment. *Nature Reviews Cancer* 2008; 8:94-107

### Carlos Caldas (page 14)

Breast Cancer Functional Genomics Laboratory

#### Primary Research Papers

Azzato EM, Driver KE, Lesueur F, Shah M, Greenberg D, Easton DF, Teschendorff AE, Caldas C, Caporaso NE, Pharoah PD. Effects of common germline genetic variation in cell cycle control genes on breast cancer survival: results from a population-based cohort. *Breast Cancer Research* 2008; 10:R47

Barber ME, Save V, Carneiro F, Dwerryhouse S, Lao-Sirieix P, Hardwick RH, Caldas C, Fitzgerald RC. Histopathological and molecular analysis of gastrectomy specimens from hereditary diffuse gastric cancer patients has implications for endoscopic surveillance of individuals at risk. *The Journal of Pathology* 2008; 216:286-294

Barber ME, Murrell A, Ito Y, Maia A-T, Hyland S, Oliveira C, Save V, Carneiro F, Paterson AL, Grehan N, Dwerryhouse S, Lao-Sirieix P, Caldas C, Fitzgerald RC. Mechanisms and sequelae of E-cadherin silencing in hereditary diffuse gastric cancer. *The Journal of Pathology* 2008; 216:295-306

Brown LA, Hoog J, Chin S-F, Tao Y, Zayed AA, Chin K, Teschendorff AE, Quackenbush JF, Marioni JC, Leung S, Perou CM, Neilsen TO, Ellis M, Gray JW, Bernard PS, Huntsman DG, Caldas C. ESR1 gene amplification in breast cancer: a common phenomenon? *Nature Genetics* 2008; 40:806-7

Callagy GM, Webber MJ, Pharoah PD, Caldas C. Meta-analysis confirms BCL2 is an independent prognostic marker in breast cancer. *BMC Cancer* 2008; 8:153

Capellá G, Pera G, Sala N, Agudo A, Rico F, Del Giudice G, Plebani M, Palli D, Boeing H, Bueno de Mesquita HB, Carneiro F, Berrino F, Vineis P, Tumino R, Panico S, Berglund G, Simán H, Nyrén O, Hallmans G, Martínez C, Dorronsoro M, Barricarte A, Navarro C, Quirós JR et al. DNA repair polymorphisms and the risk of stomach adenocarcinoma and severe chronic gastritis in the EPIC-EURGAST study. *International Journal of Epidemiology* 2008; 37:1316-25

Cariati M, Naderi A, Brown JP, Smalley MJ, Pinder SE, Caldas C, Purushotham AD. Alpha-6 integrin is necessary for the tumorigenicity of a stem cell-like subpopulation within the MCF7 breast cancer cell line. *International Journal of Cancer* 2008; 122:298-304

Cooke SL, Pole JC, Chin SF, Ellis IO, Caldas C, Edwards PA. High-resolution array CGH clarifies events occurring on 8p in carcinogenesis. *BMC Cancer* 2008; 8:288

Crusius JBA, Canzian F, Capellá G, Peña AS, Pera G, Sala N, Agudo A, Rico F, Del Giudice G, Palli D, Plebani M, Boeing H, Bueno de Mesquita HB, Carneiro F, Pala V, Save VE, Vineis P, Tumino R, Panico S, Berglund G, Manjer J, Stenling R, Hallmans G, Martínez C, Dorronsoro M et al. Cytokine gene polymorphisms and the risk of adenocarcinoma of the stomach in the European prospective investigation into cancer and nutrition (EPIC-EURGAST) *Annals of Oncology* 2008; 19:1894-1902

Git A, Spiteri I, Blenkiron C, Dunning M, Pole JC, Chin S-F, Wang Y, Smith J, Livesey FJ, Caldas C. PMC42, a breast progenitor cancer cell line, has normal-like mRNA and miRNA transcriptomes. *Breast Cancer Research* 2008; 10:R54

Meyer KB, Maia A-T, O'Reilly M, Teschendorff AE, Chin S-F, Caldas C, Ponder BAJ. Allele-specific up-regulation of FGFR2 increases susceptibility to breast cancer. *PLoS Biology* 2008; 6:e108

Reyal F, Van Vliet MH, Armstrong NJ, Horlings HM, de Visser KE, Kok M, Teschendorff AE, Mook S, Van't Veer L, Caldas C, Salmon RJ, Van de Vijver MJ, Wessels LF. A comprehensive analysis of prognostic signatures reveals the high predictive capacity of proliferation, immune response and RNA splicing modules in breast cancer. *Breast Cancer Research* 2008; 10:R93

Teschendorff AE, Caldas C. A robust classifier of high predictive value to identify good prognosis patients in ER negative breast cancer. *Breast Cancer Research* 2008; 10:R73

Veerakumarasivam A, Scott HE, Chin S-F, Warren A, Wallard MJ, Grimmer D, Ichimura K, Caldas C, Collins VP, Neal DE, Kelly JD. High-resolution array-based comparative genomic hybridization of bladder cancers identifies mouse double minute 4 (MDM4) as an amplification target exclusive of MDM2 and TP53. *Clinical Cancer Research* 2008; 4:2527-34

#### Other publications

Costa JL, Meijer G, Ylstra B, Caldas C. Array comparative genomic hybridization copy number profiling: A new tool for translational research in solid malignancies. *Seminars in Radiation Oncology* 2008; 18:98-104

Sassen S, Miska EA, Caldas C. MicroRNA: implications for cancer. *Virchows Archiv* 2008; 452:1-10

## Jason Carroll (page 16)

Nuclear Receptor Transcription Laboratory

#### Primary Research Papers

Bhat-Nakshatri P, Wang G, Appaiah H, Luktuke N, Carroll JS, Geistlinger TR, Brown M, Badve S, Liu Y, Nakshatri H. AKT alters genome-wide estrogen receptor  $\alpha$  binding and impacts estrogen signalling in breast cancer. *Molecular and Cellular Biology* 2008; 28:7487-503

Holmes KA, Song JS, Liu XS, Brown M, Carroll JS. Nkx3-1 and LEF-1 function as transcriptional inhibitors of estrogen receptor activity. *Cancer Research* 2008; 68:7380-5

Hurtado A, Holmes KA, Geistlinger TR, Hutcheson IR, Nicholson RI, Brown M, Jiang J, Howat WJ, Ali S, Carroll JS. Regulation of ERBB2 by oestrogen receptor-PAX2 determines response to tamoxifen. *Nature* 2008; 456:663-6

Johnson DS, Li W, Gordon DB, Bhattacharjee A, Curry B, Ghosh J, Brizuela L, Carroll JS, Brown M, Flicek P, Koch CM, Dunham I, Bieda M, Xu X, Farnham PJ, Kapranov P, Nix DA, Gingeras TR, Zhang X, Holster H, Jiang N, Green R, Song JS, McCuine SA, Anton E, Nguyen L, Trinklein ND et al. Systematic evaluation of variability in ChIP-chip experiments using predefined DNA targets. *Genome Research* 2008; 18:393-403

Krum SA, Miranda-Carboni GA, Hauschka PV, Carroll JS, Lane TF, Freedman LP, Brown M. Estrogen protects bone by inducing Fas ligand in osteoblasts to regulate osteoclast survival. *EMBO Journal* 2008; 27: 535-45

Krum SA, Miranda-Carboni GA, Lupien M, Eeckhoutte J, Carroll JS, Brown M. Unique ER  $\alpha$  cisromes control cell type-specific gene regulation. *Molecular Endocrinology* 2008; 22:2393-406

Li W, Carroll JS, Brown M, Liu S. xMAN: extreme MAPPING of oligonucleotides. *BMC Genomics* 2008; 9 Suppl 1:S20

Lupien M, Eeckhoutte J, Meyer CA, Wang Q, Zhang Y, Li W, Carroll JS, Liu XS, Brown M. FoxA1 translates epigenetic signatures into enhancer-driven lineage-specific transcription. *Cell* 2008; 132:958-70

#### Other Publications

Dietz SC, Carroll JS. Interrogating the genome to understand oestrogen-receptor-mediated transcription. *Expert Reviews in Molecular Medicine* 2008; 10:e10

## Fanni Gergely (page 18)

Centrosome Biology Laboratory

#### Primary Research Papers

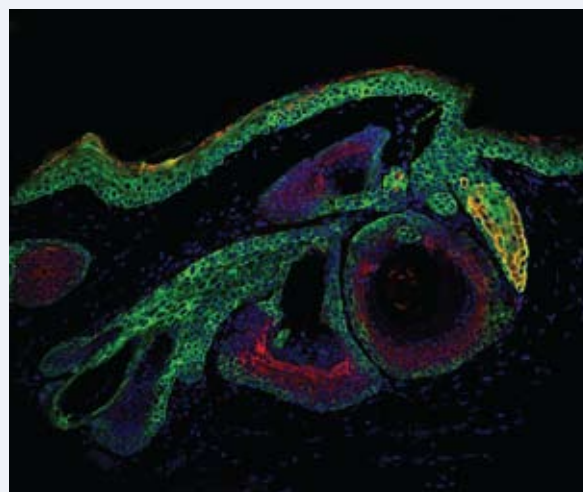
Barr AR, Gergely F. MCAK-independent functions of ch-Tog/ XMAP215 in microtubule plus-end dynamics. *Molecular and Cellular Biology* 2008; 28:7199-211

van der Weyden L, Arends MJ, Dovey OM, Harrison HL, Lefebvre G, Conte N, Gergely FV, Bradley A, Adams DJ. Loss of Rassf1a cooperates with Apc(Min) to accelerate intestinal tumourigenesis. *Oncogene* 2008; 27:4503-8

#### Other Publications

Gergely F. Mitosis: CDH1 clears the way for anaphase spindle assembly. *Current Biology* 2008; 18:R1009-12

Gergely F, Basto R. Multiple centrosomes: together they stand, divided they fall. *Genes and Development* 2008; 22:2291-6



## John Griffiths (page 20)

Molecular Imaging (MRI and MRS) Laboratory

#### Primary Research Papers

Chung Y-L, Troy H, Kristeleit R, Aherne W, Jackson LE, Atadja P, Griffiths JR, Judson IR, Workman P, Leach MO, Belouche-Babari M. Non-invasive magnetic resonance spectroscopic pharmacodynamic markers of a novel histone deacetylase inhibitor; LAQ824, in human colon carcinoma cells and xenografts. *Neoplasia* 2008; 10:303-13

Evans A, Bates V, Troy H, Hewitt S, Holbeck S, Chung Y-L, Phillips R, Stubbs M, Griffiths JR, Airley R. Glut-1 as a therapeutic target: increased chemoresistance and HIF-1-independent link with cell turnover is revealed through COMPARE analysis and metabolomic studies. *Cancer Chemotherapy and Pharmacology* 2008; 61:377-393

Howe FA, McPhail LD, Griffiths JR, McIntyre DJ, Robinson SP. Vessel size index magnetic resonance imaging to monitor the effect of antivasular treatment in a rodent tumor model. *International Journal of Radiation Oncology, Biology, Physics* 2008; 71:1470-6

Kalber TL, Waterton JC, Griffiths JR, Ryan AJ, Robinson SP. Longitudinal *in vivo* susceptibility contrast MRI measurements of LS17T colorectal liver metastasis in nude mice. *Journal of Magnetic Resonance Imaging* 2008; 28:1451-8

Madhu B, Robinson SP, Howe FA, Griffiths JR. The effect of Gd-DTPA-BMA on choline signals of HT29 tumours detected by *in vivo*  $^1\text{H}$  MRS. *Journal of Magnetic Resonance Imaging* 2008; 28:1201-8

Mayr M, Liem D, Zhang J, Li X, Avliyakov NK, Yang JI, Young G, Vondriska TM, Ladroue C, Madhu B, Griffiths JR, Gomes A, Xu Q, Ping P. Proteomic and metabolomic analysis of cardioprotection: Interplay between protein kinase C epsilon and delta in regulating glucose metabolism of murine hearts. *Journal of Molecular and Cellular Cardiology* 2008; Oct 26 [Epub ahead of print]

Mayr M, Yusuf S, Weir G, Chung YL, Mayr U, Yin X, Ladroue C, Madhu B, Roberts N, De Souza A, Fredericks S, Stubbs M, Griffiths JR, Jahangiri M, Xu Q, Camm AJ. Combined metabolomic and proteomic analysis of human atrial fibrillation. *Journal of the American College of Cardiology* 2008; 51:585-94

Mayr M, Zampetaki A, Sidibe A, Mayr U, Yin X, De Souza AI, Chung YL, Madhu B, Quax PH, Hu Y, Griffiths JR, Xu Q. Proteomic and metabolomic analysis of smooth muscle cells derived from the arterial media and adventitial progenitors of apolipoprotein E-deficient mice. *Circulation Research* 2008; 102:1046-56

Opstad KS, Bell BA, Griffiths JR, Howe FA. An investigation of human brain tumour lipids by high-resolution magic angle spinning <sup>1</sup>H MRS and histological analysis. *NMR Biomedicine* 2008; 21:677-85

Opstad KS, Bell BA, Griffiths JR, Howe FA. Apparent T2 relaxation times of lipid and macromolecules: a study of high grade tumour spectra. *Journal of Magnetic Resonance Imaging* 2008; 27:178-84

Opstad KS, Bell BA, Griffiths JR, Howe FA. An assessment of the effects of sample ischaemia and spinning time on the metabolite profile of brain tumour specimens as determined by high-resolution angle spinning <sup>1</sup>H NMR. *NMR Biomedicine* 2008; 21:1138-47

Opstad KS, Bell BA, Griffiths JR, Howe FA. Towards accurate quantification of metabolites, lipids and macromolecules in HRMAS spectra of human brain tumor biopsies using LCModel. *Magnetic Resonance in Medicine* 2008; 60:1237-42

Porstmann T, Santos CR, Griffiths B, Cully M, Wu M, Leever S, Griffiths JR, Chung Y-L, Schulze A. SREBP activity is regulated by mTORC1 and contributes to Akt-dependent cell growth. *Cell Metabolism* 2008; 8:224-36

Wright AJ, Arús C, Wignen JP, Moreno-Torres A, Griffiths JR, Celda B, Howe FA. Automated quality control protocol for MR spectra of brain tumours. *Magnetic Resonance in Medicine* 2008; 59:1274-81

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Chung Y-L, Griffiths JR. Using metabolomics to monitor anticancer drugs. *Ernst Schering Foundation Symposium Proceedings*. Springer-Verlag Berlin Heidelberg, 2008; 4:55-78

Griffiths JR. Diagnosing brain cancer without a biopsy – the eTUMOUR project. *Public Service Review: European Union* 2008

Griffiths JR. A picture of health. *Public Service Review: European Union* 2008; 16

## Duncan Jodrell (page 22)

Pharmacology and Drug Development Laboratory

#### Primary Research Papers

Brown ER, Charles KA, Hoare SA, Rye RL, Jodrell DI, Aird RE, Vora R, Prabhakar U, Nakada M, Corringham RE, DeWitte M, Sturgeon C, Propper D, Balkwill FR, Smyth JF. A clinical study assessing the tolerability and biological effects of infliximab, a TNF- $\alpha$  inhibitor, in patients with advanced cancer. *Annals of Oncology* 2008; 19:1340-6

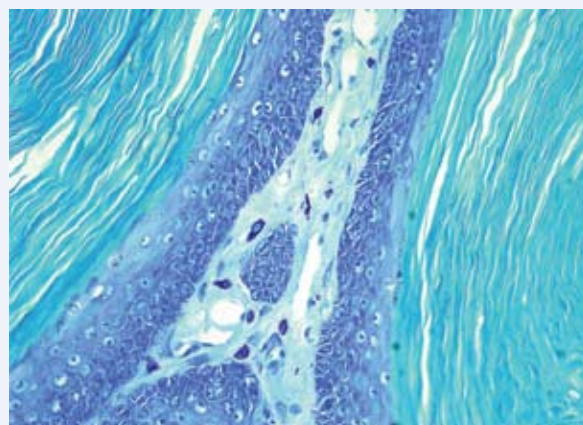
Camidge DR, Oliver JJ, Skinner C, Attwood B, Nussey F, Jodrell D, Webb DJ. The impact of prognosis without treatment on doctors' and patients' resource allocation decisions and its relevance to new drug recommendation processes. *British Journal of Clinical Pharmacology* 2008; 65:224-9

Connolly K, Mitter R, Muir M, Jodrell D, Guichard S. Stable XIAP knockdown clones of HCT116 colon cancer cells are more sensitive to TRAIL, taxanes and irradiation *in vitro*. *Cancer Chemotherapy and Pharmacology* 2008; Nov 26 [E-pub ahead of print]

Guichard SM, Macpherson JS, Mayer I, Reid E, Muir M, Dodds M, Alexander S, Jodrell DI. Gene expression predicts differential capecitabine metabolism, impacting on both pharmacokinetics and antitumour activity. *European Journal of Cancer* 2008; 44:310-7

Izquierdo MA, Bowman A, García M, Jodrell D, Martínez M, Pardo B, Gómez J, López-Martin JA, Jimeno J, Germá JR, Smyth JF. Phase I clinical and pharmacokinetic study of plitidepsin as a 1-hour weekly intravenous infusion in patients with advanced solid tumors. *Clinical Cancer Research* 2008; 14:3105-12

Patel K, Guichard SM, Jodrell DI. Simultaneous determination of decitabine and vorinostat (Suberoylanilide hydroxamic acid, SAHA) by liquid chromatography tandem mass spectrometry for clinical studies. *Journal of Chromatography B: Analytical Technological and Biomedical Life Sciences* 2008; 863:19-25



## Gillian Murphy (page 24)

Proteases and Tumour Micro-environment Laboratory

#### Primary Research Papers

Krubasik D, Eisenach PA, Kunz-Schughart LA, Murphy G, English WR. Granulocyte-macrophage colony stimulating factor induces endothelial capillary formation through induction of membrane-type 1 matrix metalloproteinase expression *in vitro*. *International Journal of Cancer* 2008; 122:1261-72

Puxeddu I, Pang YY, Harvey A, Haitchi HM, Nicholas B, Yoshisue H, Ribatti D, Clough G, Powell RM, Murphy G, Hanley NA, Wilson DI, Howarth PH, Holgate ST, Davies DE. The soluble form of a disintegrin and metalloprotease 33 promotes angiogenesis: implications for airway remodeling in asthma. *Journal of Allergy and Clinical Immunology* 2008; 121:1400-6

Saeb-Parsy K, Veerakumarasivam A, Wallard MJ, Thorne N, Kawano Y, Murphy G, Neal DE, Mills IG, Kelly JD. MT1-MMP regulates urothelial cell invasion via transcriptional regulation of Dickkopf-3. *British Journal of Cancer* 2008; 99:663-9

**Rapti M, Atkinson SJ, Lee MH, Trim A, Moss M, Murphy G.** The isolated N-terminal domains of TIMP-1 and TIMP-3 are insufficient for ADAM10 inhibition. *Biochemical Journal* 2008; 411:433-9

**White K, Buning H, Kritza A, Janicki H, McVey J, Perabo L, Murphy G, Odenthal M, Work LM, Hallek M, Nicklin SA, Baker AH.** Engineering adeno-associated virus 2 vectors for targeted gene delivery to atherosclerotic lesions. *Gene Therapy* 2008; 15:443-451

#### Other Publications

**Murphy G.** The ADAMs family: signalling scissors of the tumour microenvironment. *Nature Reviews Cancer* 2008; 8:932-41

**Murphy G.** Regulation of the proteolytic disintegrin metalloproteinases, the 'Sheddases'. *Seminars in Cell and Developmental Biology* 2008; Sep 18 [E-pub ahead of print]

**Murphy G, Murthy A, Khokha R.** Clipping, shedding and RIPping keep immunity on cue. *Trends in Immunology* 2008; 29:75-82

**Murphy G, Nagase H.** Reappraising metalloproteinases in rheumatoid arthritis and osteoarthritis: destruction or repair? *Nature Clinical Practice Rheumatology* 2008; 4:128-35

**Murphy G, Nagase H.** Progress in matrix metalloproteinase research. *Molecular Aspects of Medicine* 2008; 5:290-308

## Adele Murrell (page 26)

Epigenetics and Imprinting Laboratory

#### Primary Research Papers

**Barber ME, Murrell A, Ito Y, Maia A-T, Hyland S, Oliveira C, Save V, Carneiro F, Paterson AL, Grehan N, Dwerryhouse S, Lao-Sirieix P, Caldas C, Fitzgerald RC.** Mechanisms and sequelae of E-cadherin silencing in hereditary diffuse gastric cancer. *The Journal of Pathology* 2008; 216:295-306

**Ito Y, Koessler T, Ibrahim AE, Rai S, Vowler SL, Abu-Amero S, Silva AL, Maia A-T, Huddleston JE, Uribe-Lewis S, Woodfine K, Jagodic M, Nativio R, Dunning A, Moore G, Klenova E, Bingham S, Pharoah PD, Brenton JD, Beck S, Sandhu MS, Murrell A.** Somatically acquired hypomethylation of IGF2 in breast and colorectal cancer. *Human Molecular Genetics* 2008; 17:2633-43

**Murrell A, Ito Y, Verde G, Huddleston J, Woodfine K, Silengo M C, Spreafico F, Perotti D, De Crescenzo A, Sparago A, Cerrato F, Riccio A.** Distinct methylation changes at the IGF2-H19 locus in congenital growth disorders and cancer. *PLoS ONE* 2008; 3:E1849

**Tomazou EM, Rakyar VK, Lefebvre G, Andrews R, Ellis P, Jackson DK, Langford C, Francis MD, Bäckdahl L, Miretti M, Coggill P, Ottaviani D, Sheer D, Murrell A, Beck S.** Generation of a genomic tiling array of the human Major Histocompatibility Complex (MHC) and its application for DNA methylation analysis. *BMC Medical Genomics* 2008; 1:19

## Masashi Narita (page 28)

Cellular Senescence and Tumour Suppressors Laboratory

#### Primary Research Papers

**Tworowski KA, Chakraborty AA, Samuelson AV, Seger YR, Narita M, Hannon GJ, Lowe SW, Tansey WP.** Adenovirus E1A targets p400 to induce the cellular oncoprotein Myc. *Proceedings of the National Academy of Sciences USA* 2008; 105:6103-8

## David Neal (page 30)

Urological Research Laboratory

#### Primary Research Papers

**Aitchison AA, Veerakumarasivam A, Vias M, Kumar R, Hamdy FC, Neal DE, Mills IG.** Promoter methylation correlates with reduced Smad4 expression in advanced prostate cancer. *Prostate* 2008; 68:661-74

**Attard G, Clark J, Ambroisine L, Mills IG, Fisher G, Flohr P, Reid A, Edwards S, Kovacs G, Berney D, Foster C, Massie CE, Fletcher A, De Bono JS, Scardino P, Cuzick J, Cooper CS.** Heterogeneity and clinical significance of ETV1 translocations in human prostate cancer. *British Journal of Cancer* 2008; 99:314-320

**Avery KN, Metcalfe C, Blazeby JM, Lane JA, Neal DE, Hamdy FC, Donovan JL.** Prostate-specific antigen testing and prostate biopsy: are self-reported lower urinary tract symptoms and health-related quality of life associated with the decision to undergo these investigations? *BJU International* 2008; 102:1629-1633

**Berney DM, Warren AY, Verma M, Kudahetti S, Robson JM, Williams MW, Neal DE, Powles T, Shamash J, Oliver RTD.** Malignant germ cell tumours in the elderly: a histopathological review of 50 cases in men aged 60 years or over. *Modern Pathology* 2008; 21:54-59

**Borlido J, Veltri G, Jackson AP, Mills IG.** Clathrin is spindle-associated but not essential for mitosis. *PLoS ONE* 2008; 3:e3115.

**Collin SM, Martin RM, Metcalfe C, Gunnell D, Albertsen PC, Neal D, Hamdy F, Stephens P, Lane JA, Moore R, Donovan J.** Prostate-cancer mortality in the USA and UK in 1975-2004: an ecological study. *Lancet Oncology* 2008; 9:445-452

**Cutress ML, Whitaker HC, Mills IG, Stewart M, Neal DE.** Structural basis for the nuclear import of the human androgen receptor. *Journal of Cell Science* 2008; 121:957-68

**Donovan JL, Lane JA, Peters TJ, Brindle L, Salter E, Gillatt D, Powell P, Bollina P, Neal DE, Hamdy FC; for the ProtecT Study Group.** Development of a complex intervention improved randomization and informed consent in a randomized controlled trial. *Journal of Clinical Epidemiology* 2008; Jul 9 [Epub ahead of print]

**Down L, Metcalfe C, Avery K, Noble S, Lane JA, Neal DE, Hamdy FC, Donovan JL.** Factors distinguishing general practitioners who more readily participated in a large randomized trial were identified. *Journal of Clinical Epidemiology* 2008; Jul 9 [Epub ahead of print]

**Eeles RA, Kote-Jarai Z, Giles GG, Olama AA, Guy M, Jugurnauth SK, Mulholland S, Leongamornlert DA, Edwards SM, Morrison J, Field HI, Southey MC, Severi G, Donovan JL, Hamdy FC, Dearnaley DP, Muir KR, Smith C, Bagnato M, Ardern-Jones AT, Hall AL, O'Brien LT et al.** Multiple newly identified loci associated with prostate cancer susceptibility. *Nature Genetics* 2008; 40:316-21

**Ghousaini M, Song H, Koessler T, Al Olama AA, Kote-Jarai Z, Driver KE, Pooley KA, Ramus SJ, Kjaer SK, Hogdall E, Dicioccio RA, Whittemore AS, Gayther SA, Giles GG, Guy M, Edwards SM, Morrison J, Donovan JL, Hamdy FC, Dearnaley DP, Ardern-Jones AT, Hall AL et al.** Multiple loci with different cancer specificities within the 8q24 gene desert. *Journal of the National Cancer Institute* 2008; 100:962-6

**Guy M, Kote-Jarai Z, Giles GG, Al Olama AA, Jugurnauth SK, Mulholland S, Leongamornlert DA, Edwards SM, Morrison J, Field HI, Southey MC, Severi G, Donovan JL, Hamdy FC, Dearnaley DP, Muir KR, Smith C, Bagnato M, Ardern-Jones AT, Hall AL, O'Brien LT, Gehr-Swain BN et al.** Identification of new genetic risk factors for prostate cancer. *Asian Journal of Andrology* 2008; Dec 1 [Epub ahead of print]

Haba Y, Williams MV, Neal DE, Ong JY, Ostrowski MJ, Ell PJ, Nargund V, Shamash J, Oliver RT. Stage migration and pilot studies of reduced chemotherapy supported by positron-emission tomography findings suggest new combined strategies for stage 2 nonseminoma germ cell tumour. *BJU International* 2008; 101:570-4

Hussain S, Gunnell D, Donovan J, McPhail S, Hamdy F, Neal DE, Albertsen P, Verne J, Stephens P, Trotter C, Martin RM. Secular trends in prostate cancer mortality, incidence and treatment: England and Wales, 1975–2004. *British Journal of Urology* 2008; 101:570-4

Massie CE, Mills IG. ChIPing away at gene regulation. *EMBO Reports* 2008; 9:337-43

Metcalfe C, Martin RM, Noble S, Lane JA, Hamdy FC, Neal DE, Donovan JL. Low risk research using routinely collected identifiable health information without informed consent: encounters with the Patient Information Advisory Group. *Journal of Medical Ethics* 2008; 34:37-40

Neal DE. Can we accurately identify men with low risk prostate cancer? *Journal of Urology* 2008; 180:1217-8

Olesen LE, Ford MGJ, Schmid E M, Vallis Y, Madan Babu M, Li P, Mills IG, McMahon HT, Praefcke GJK. Solitary and repetitive binding motifs for the AP2 complex  $\alpha$ -appendage in amphiphysin and other accessory proteins. *Journal of Biological Chemistry* 2008; 283:5099-5109

Rosario DJ, Lane JA, Metcalfe C, Catto JW, Dedman D, Donovan JL, Neal DE, Hamdy FC, ProtecT Study Grp. Contribution of a single repeat PSA test to prostate cancer risk assessment: Experience from the ProtecT study. *European Urology* 2008; 53:777-784

Sahadevan K, Pickard RS, Neal DE, Hasan TS. Is continent diversion using the Mitrofanoff principle a viable long-term option for adults requiring bladder replacement? *BJU International* 2008; 102:236-40

Saeb-Parsy K, Veerakumarasivam A, Wallard MJ, Thorne N, Kawano Y, Murphy G, Neal DE, Mills IG, Kelly JD. MT1-MMP regulates urothelial cell invasion via transcriptional regulation of Dickkopf-3. *British Journal of Cancer* 2008; 99:663-9

Veerakumarasivam A, Scott HE, Chin S-F, Warren A, Wallard MJ, Grimmer D, Ichimura K, Caldas C, Collins VP, Neal DE, Kelly JD. High-resolution array-based comparative genomic hybridization of bladder cancers identifies mouse double minute 4 (MDM4) as an amplification target exclusive of MDM2 and TP53. *Clinical Cancer Research* 2008; 14:2527-34

Veerakumarasivam A, Goldstein LD, Saeb-Parsy K, Scott HE, Warren A, Thorne NP, Mills IG, Venkitaraman A, Neal DE, Kelly JD. AURKA overexpression accompanies dysregulation of DNA-damage response genes in invasive urothelial cell carcinoma. *Cell Cycle* 2008; 7:3525-33

Vias M, Massie CE, East P, Scott H, Warren A, Zhou Z, Nikitin AY, Neal DE, Mills IG. Pro-neural transcription factors as cancer markers. *BMC Medical Genomics* 2008; 1:17

Vias M, Ramos-Montoya A, Mills IG. Terminal and progenitor lineage-survival oncogenes as cancer markers. *Trends in Molecular Medicine* 2008; 14:486-94

Whitaker HC, Girling J, Warren AY, Leung H, Mills IG, Neal DE. Alterations in  $\beta$ -catenin expression and localization in prostate cancer. *Prostate* 2008; 68:196-205

## Duncan Odom (page 32)

Regulatory Systems Biology Laboratory

### Primary Research Papers

Schmidt D, Stark R, Wilson MD, Brown GD, Odom DT. Genome-scale validation of deep-sequencing libraries. *PLoS ONE* 2008; 3:e3713

Wilson MD, Barbosa-Morais NL, Schmidt D, Conboy CM, Vanes L, Tybulewicz VL, Fisher EM, Tavaré S, Odom DT. Species-specific transcription in mice carrying human chromosome 21. *Science* 2008; 322:434-8

## Bruce Ponder (page 34)

Genetic Susceptibility to Cancer Laboratory

### Primary Research Papers

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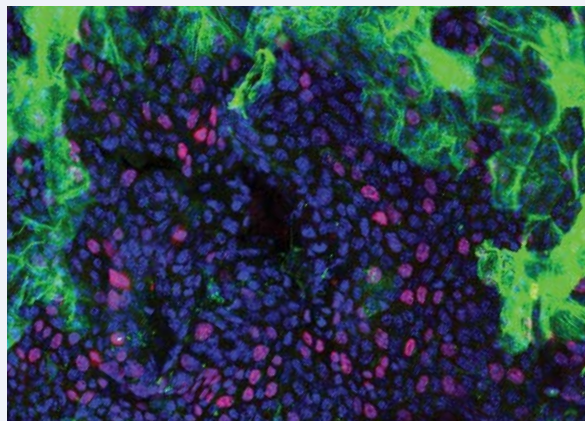
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## John Stingl (page 36)

Mammary Stem Cell Biology Laboratory

#### Primary Research Papers

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## Simon Tavaré (page 38)

Statistics and Computational Biology Laboratory

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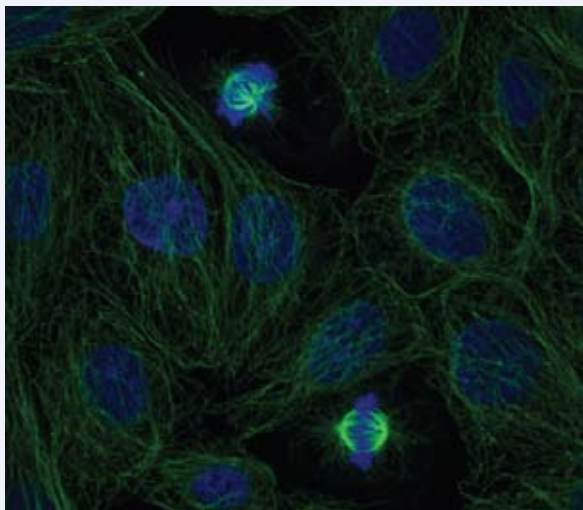
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## David Tuveson (page 40)

Tumour Modelling and Experimental Medicine (Pancreatic Cancer) Laboratory

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## Fiona Watt (page 42)

Epithelial Cell Biology (Skin) Laboratory

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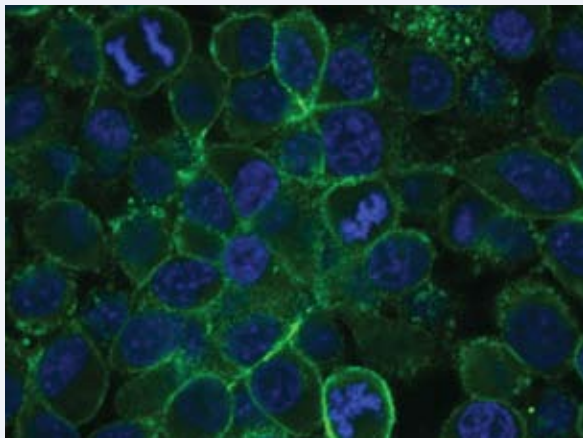
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## Douglas Winton (page 44)

Stem Cell Biology of the Intestine Laboratory

### Primary Research Papers

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## Bioinformatics Core (page 47)

Matthew Eldridge

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## Flow Cytometry Core (page 51)

Greg Veltri

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James Hadfield

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## Histopathology and ISH

### Core (page 53)

Will Howat

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## Light Microscopy Core (page 54)

Stefanie Reichelt

### Primary Research Papers

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