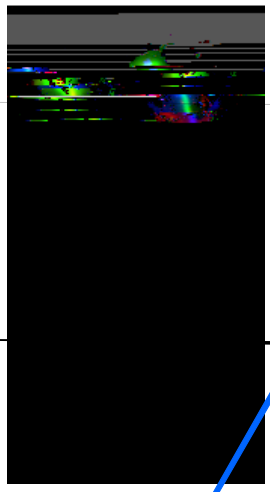
The b



DNA

spin le microtub

SPB

Ohtani N, Brennan P, Gaubatz S, Sanij E, Ghysdael J, Rowe M and Hara E. Epstein-Barr virus LMP1 blocks p16 ^{INK4a}/RB-pathway through

phosphatase, but they are not optimal for predicting ES cell pluripotency since they decrease relatively slowly following the onset of differentiation, or the analyses are destructive. However, this study shows

At one level, microarray

can adversely affect microarray data, and have a number of projects at various stages of completion that investigate these. For example, in one array study, mycoplasma contamination was detected by routine screening, after labelling, but before hybridisation. We decided to proceed with the samples and saw significant changes in gene expression for over a hundred transcripts (up to 12 fold) between

ATase, which has been licensed by CRT to KuDOS Pharmaceuticals, has completed Phase I clinical trials that were carried out here at Christie Hospital and at University College, London. Under the auspices of KuDOS, PaTrin-2 has now entered two Phase II trials, oolT:lelanoma and the otherT*

Regulation of cyclinD-dependent kinase activity

In mammalian cells, the cyclin D-dependent

We study *Schizosaccharomyces pombe* because it is a simple, unicellular organism with excellent genetics that is cheap to grow

Commitment

S. pombe is regulated by the activity of a protein kinase called MPF. MPF is composed of a catalytic sub-unit *cdc2*$^{+}$ sub-unit called cyclin B which is encoded by the fission yeast *cdc13*

confers two changes in Plo1

The Derek Crowther Unit (DCU)

The translational research of CEP is directly associated with Phase I Trials in the DCU. The capital costs of the DCU were funded by the

The validity of PDin Gorlin Syndrome patients

For certain patients, th e question of quality of functional and genetic recovery of the normal tissue after cytotoxic insult is pa rticularly critical. Twenty per cent of the workload in our skin cancer PDT clinic are patients with 'Gorlin' syndrome (naevoid basal cell carcinoma syndro me). These patients are hemizygous for the autosomal dominant develop-

mental gene 'patched' which also actsf as a tumour'.204r3he aue23 Tsupplini5.4(swD[(sor. P1.4(es5-6(pat6e)-4d(es5-inan our

The role of the Stu2/ch-TOG at centrosomes

these microtubule ends to the bud cortex. Cdc28-Clb4 is important for the efficient transport of Bim1-Kar9. Similar mechanisms may be in place in

Cell death

Early haematopoietic development

Mesoderm development

In the mouse embryo, meso

poietic as well as endothelial progeny, suggests that

recipient mice. This will deplete recipient mouse bone marrow of ATase, but donor cells containing the mutant ATase will be resistant to benzyguanine depletion and repair DNA damage. This method will therefore give donor cells an advantage of recipient cells and potentially enable delivery of chemotherapy after low intensity transplantation.

biological trials clinical Cancer therapy

Renal cell cancer is a major part of our clinical practice and is treate

links a single chain antibody to a signal transducing domain. The ability to efficiently transduce primary T cells with retroviral vectors expressing chimeric T cell receptor provides a potentially powerful new method of cancer treatment. Our studies have focused upon the development of chimeric receptors which specifically target carcino-embryonic antigen (CEA – colorectal, gastric, pancreatic, lung) and CD19 (B-cell lymphoma). Human T cells expressing the relevant chimeric receptor effectively kill CEA positive or CD19 expressing tumour cell lines *in vitro* and these human T cells are effective in local therapy models targeting CEA. Crucially, T cells from patients with advanced cancer can be readily expanded and are active against autologous tumour. These studies have formed the basis for clinical protocols which are

Ex vivo studies of human ovarian carcinoma

The Fibroblast Growth Factors (FGFs) exhibit dependence on heparan sulphate, a linear glycosaminoglycan, for their biological activity. We have used a novel mole

Heparan

HS chains are covalently-linked to two types of

demonstrated that NK1 has identical GAG-binding properties to intact HGF/SF, thereby placing the GAG-binding site wholly within the N-terminal region. Importantly, GMSA has also allowed us to show that a tetrasaccharide is the minimal binding and active GAG fragment. This modified GMSA procedure is now proving to be of widespread use across the group.

FGF/FGF-receptor (FGFR) signalling complexes

High-resolution gel filtration is being used to study

We will continue to develop the service facilities during the next twelve months, with planned purchases for a microscopy system for live cell imaging in mammalian cells and a new FACs sorter. Additional equipment which needs to be replaced include a replacement for real-time PCR, and new equipment for the Histology Unit. Last, but not least, we will be developing facilities for proteomics analysis in collaboration with Professors Tony Whetton and Simon Gaskell. These purcwill

stores has now become routine, with deliveries taken to the labs each afternoon. The provision of a central storage facility for many routine consumable items has reduced storage within individual laboratories, and the list of centrally stored items continues to grow weekly.

A media and plate pouring service was established over the last couple of years and this continues to prove extremely popular several research groups. The litres of media produced and numbers of plates poured continue to increase month by month. Working alongside the la

The FACScan and FACSCalibur are three and four colour analysers respectively and analysis of cells at speeds of up to 10,000 per second can be achieved using bo Users are trained to run their

ialrtrainng Tew.2ampes.048 bLD.nays 7 Tw[Pcur 4.9(s s oa 4.9(se)6(ru)4.14n th)6(rexplain st4.9(a) 4.9(st)4.14np0.8

Potentiation of temozolomide in human tumour cells. Baer, J., Freeman, A.A., Newlands, E.S., Watson, A.J., Rafferty, J.A., and Margison, G.P. (USP: 5731304) through CRC Technology Ltd.

C Butler, J., Ward, T.H. and u
L o a n f g
benzoquinones MeDZQ and RH1 in human tumour
x *A n ţ* **2** , *i c a n c e r* 3 *R* **3** *e s* 9 e 7 9

D a n s o ce,n ,
M., Hodgetts, J., Lomax, L., Ashcroft, L., Thatcher, N. and
M i
t e

IMMUNOLOGY GROUP *(page 26)*

Peter L Stern

Refereed Research Papers

Davidson, E.J., Boswell, C.M., Sehr, P., Pawlita, M., Tomlinson, A.E., McVey, R.J., Dobson, J., Roberts, J.S.C., Hickling, J., Kitchener, H.C. and Stern, P.L. (2003) Immunological and clinical responses in women with

Harris, M.A., Delap, L.M., Sengupta, P.S., Wilkinson, P.M., Welch, R.S., Swindell, R., Shanks, J.H., Wilson, G., Slade, R.J., Reynolds, K. and Jayson, G.C. (2003) Carcinosarcoma of the ovary. *Br J Cancer*,

July 2003

3
Medical School, London)
10 Jul Charles
Manchester)
169Jul Axel Behrens (CR-UK London
Research
17 Jul Andreas Manz (Imperial College
London)

September 2003

2
UCSF, San Francisco, USA)
4 Sep Gordon Peters (CR-UK London
Research
11 Sep Ashok Venkitaraman (Hutchison/MRC
Research Centre, Cambridge)
169Sep Judith Jabanathurajah (Harvard
School, USA)
25 Sep Dario Alessi (MRC Protein
Phosphorylation Unit,
Dundee)
309Sep Mark Matfield (RDS, London)

October 2003

9
Research, Edinburgh)
169Oct Stephen Kearsey (University of Oxford)
21 Oct Ren
Institute)
23
309Oct Ralf Adams (CR-UK London Research
Institute)

November 2003

Manchester Universities. Individual students take combinations of these courses that enhance their field of study and build up credits for attendance at lectures, workshops, meetings and research seminars over the 3-4 years of study.

Assessment and Care

All projects are initially assessed by the Education Committee to ensure that the we8.srk wiAllforme
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Health & Safety

Manager: Ann Hallam

Effective management of health and safety through

The major source of funding (73%) of the Paterson Institute is through a core grant from Cancer Research UK (CR-UK). This is divided between the various scientific groups and service units within the Institute to enable them to carry out their research. In addition to this a further 9% of funding is received from the CR-UK for Project Grant Work and Studentships.

The infrastructure of the Institute is funded by the Christie Hospital Endowment Fund and together with several project grants accounts for 12% of the totristi20TDUhe come.th

Donations to the Institute in 2003

Legacies

- In memory of Joyce Budd
- In memory of Atty (aka Ettie) Bernstein

Donations

- Mr Neil Raghib
- Mrs Doris Brindle
- Mrs M Collier in memory of Mr Bill Collier
- Renold Chain in memory of Mr Frank Cobey
- Mr R Walker in memory of Mr Frank Cobey

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