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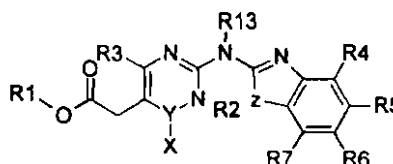
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DRUG PATENTING IN CONTEXT

Current Patents *Gazette* is the most rapid competitive intelligence service covering innovation in the pharmaceutical industry. Patent applications published during the past week have been classified and analysed, in order to place the inventions in context. For the most crucial innovations, those involving new chemical compounds, additional information is given in the form of front page images. These can be enlarged to show details of chemical structures and inventor teams, for example. Applications filed jointly, representing collaborative research, are highlighted, as are sequences of inter-related documents.

NEW THIS WEEK

P&U has claims to benzimidazole compounds acting as human Growth Hormone mimetics, possibly linked to a collaboration with Axyos on the investigation of mimetics of human growth factors. To date this work has centred on an array of oligopeptides that bind to the human growth hormone receptor ([Page 9](#)).



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Section A

New Compounds- novel entities, with images of front pages adding valuable additional information

Section B

New Uses, Formulations & Methods of Treatment- developments extending and enhancing the utility of existing products, including diagnostic and analytical applications

Section C

Chemical Processes and Combinatorial Technology- inventions concerned with efficient generation of candidates for screening, and with scale-up of laboratory syntheses in support of development activity

Section D

Biotechnology- molecular biology, nucleic acids, proteins, transgenics and gene therapy

Section E

Devices and Equipment- non-chemical or mechanical based invention with relevance to the industry

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HIGHLIGHTS THIS WEEK

Forensics, criminology, genealogy and genomics come together in an unusual invention from **Isis Innovation** relating to the correlation between **chromosomal DNA** and **family names**. Professor Bryan Sykes has carried out a small experiment involving the analysis of DNA from 61 UK citizens bearing the same surname as his. To his surprise (as a researcher in genetics) he found that about half of the Y-chromosome samples showed a unique genetic fingerprint, and from this he inferred that over the past seven centuries 99% of women who married a man named Sykes have been faithful. Of course there is always the possibility that the sub-set of men willing and able to respond to his request for a mouth swab (250 were approached initially) were also the ones most likely to discharge their genetic material responsibly and systematically, in a way which would please both genealogists and criminologists. Isis (not in any way to be confused with **ISIS Pharmaceuticals**) acts as the clearing house for inventions originating at the UK's **University of Oxford**. The applications of this invention are said to be principally in the detection of crime, where a DNA sample could be used to give a strong clue as to the surname of the suspect. The PCT application bears the relatively unhelpful title "Forensic and genealogical test", whereas the simultaneous UK publication is entitled "Surname/haplotype correlation". As far as we can establish, that is the first time that surnames have been mentioned in the title of a patent document - with the exception of Chinese applications (which perhaps demands an explanation).

Moves are afoot in the US to end recurring budgetary uncertainty at the **Patent and Trademark Office (USPTO)**. Traditionally part of the fees received by the USPTO, currently \$1.2bn per year, is returned to Federal Government rather than being used to resource the Office's own work of examining and granting patents. It is said to take about 26 months to process an application now, compared with only 12 months five years ago, and the past year has seen a 12% growth in numbers of applications received. The precise sum the USPTO is being asked to give up this year could be anything between \$33m and \$300m, but Representative Howard Coble of North Carolina is sponsoring a Bill proposing that the entire amount be retained. This would enable the Office to plan for systems and staffing levels adequate to cope with the growing workload, which is a particular problem in the high-profile field of genomics.

This week sees the first published application of **Kinetix Pharmaceuticals** of Medford, Massachusetts. This privately held biopharmaceutical company, founded in March 1997, specializes in the discovery and development of small molecule drugs which regulate signal transduction by inhibiting specific protein kinases. Simply entitled '**Kinase Inhibitors**', the new application probably reads on to a series of computer-designed low molecular weight, orally-active protein kinase inhibitors that the company is investigating for asthma/allergy, inflammation and oncology. At the American Association for Cancer Research Meeting in April 2000, Kinetix described the design of **VEGFR-2 tyrosine kinase small molecule inhibitors**, which appear to make a unique set of interactions with the ATP binding site of VEGFR-2. At the same meeting, the company revealed a further lead compound in **KP-0201448**, a **KDR protein kinase inhibitor** under investigation as a potential treatment for cancer through the inhibition of angiogenesis. Earlier in February this year, Kinetix also announced a the signing of a new research collaboration agreement with the **Dana-Faber Cancer Institute** to advance the profiling of novel anticancer compounds. Under the terms of the agreement, the two organizations will evaluate the potential of small molecules to treat prostate cancer by inhibiting the **protein kinase Akt**, an apoptosis regulator. Kinetix will provide Dana-Faber with research funding and access to the company's portfolio of Akt inhibitors for evaluation in cellular assays and preclinical cancer models

Errata: In last week's front page Highlights we referred to a case implying collaboration between **Aventis** and **Hoechst**. The case (WO0042061) is in fact in the name of **Hoechst Marion Roussel** (now Aventis), and the ICE inhibitor collaboration is with **Vertex**. These facts were correctly stated in the Section C commentary. We also omitted to acknowledge Judith Nelson's essential input as acting Production Editor; Matthew Sparrowhawk has been attending the 16th International Symposium on Fluorine Chemistry in Durham, UK, and resumes his duties this week. Future "Erratum" notices (hopefully they will be few!) and "housekeeping" notes about CPG staff and procedures will normally be included as a "CP News" filler panel at the end of one of the sections, with a front page note of its location.