

CURRENT PATENTS GAZETTE



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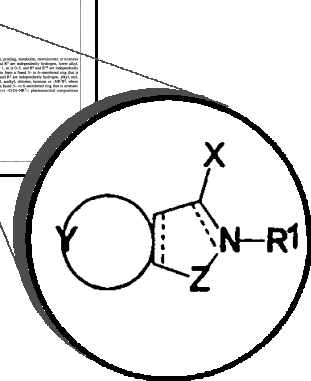
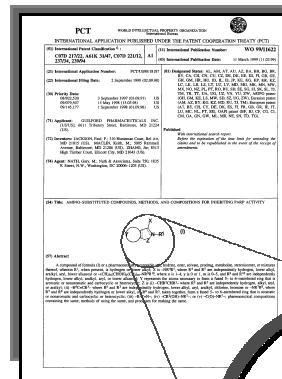
WEEK 10

MARCH 12TH 1999

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.

IN THIS WEEK'S GAZETTE



This week, Guilford Pharmaceuticals has seven applications for new poly(ADP-ribose) polymerase (PARP) inhibitors.

HIGHLIGHTS THIS WEEK

The scientist involved in the UK Government's controversial pronouncements on **genetically modified (GM) foods**, Dr Arpad Pusztai, appears this week as a member of a team claiming ***Robinia pseudoacacia* lectins**. Pusztai and a colleague from the **Rowett Research Institute** in Aberdeen have collaborated with workers at **Alizyme Therapeutics in Cambridge**. Lectin from the false acacia is claimed for therapeutic use and as a dietary supplement; previously, in WO9749420, lectins from such sources as soya bean were shown to be useful as mucosal protectants in chemo- and radiotherapy. **ALT-101**, a lectin from this collaboration, acting as an α -amylase inhibitor, has been selected as a lead compound.

Another Aberdonian connection occurs in an application relating to an **immortalized insulin-producing human β -cell** which may be rendered glucose-responsive. Unusually, **four UK universities** have collaborated in this work, namely those in **Aberdeen, Sheffield, Leicester and London**.

Racehorse ailments, in particular muscular problems, are attracting attention in both hemispheres. **Astacarotene of Sweden** claims the use of **astaxanthin** and other xanthophylls for treating **equine exertional rhabdomyolysis**. This compound was previously claimed in WO9837874 as a treatment for ***Helicobacter pylori* infections**, but the Company's patenting mostly relates to animal husbandry. In **New Zealand**, a mixture of potassium iodide and ammonium chloride is claimed as a cure for **muscle soreness** in racehorses, and by a curious coincidence the same inventor has a previous case claiming the use of another xanthine, **caffeine**, for treating **viral and bacterial infections** in animals.

Peppermint again features in a biotechnology invention from **Washington State University** Research Foundation, following the recent publication of a US patent claiming anticancer monoterpenoids. The cDNAs encoding **1-deoxyxylulose-5-phosphate synthase**, a transketolase from ***Mentha piperita***, are now claimed by a team of five inventors, some of whom previously worked on taxol.

Seven applications published this week are from **Guilford Pharmaceuticals**, on the subject of **poly(ADP-ribose) polymerase (PARP) inhibitors**. Considerable structural diversity is evident among the compounds found to have this mode of action, which was previously designated **PARS inhibition** (synthase rather than polymerase). Guilford has collaborated with **Johns Hopkins University** in this field of research, and one candidate showing promise in **myocardial ischemia-reperfusion injury** is the **pyrone INH2BP**. Also reportedly under preclinical investigation for **stroke** are **GPI-6000** and **GPI-6150**. Much of the remaining work on PARP inhibition appears to center on non-industrial innovators in the UK; the **Universities of Bath and Newcastle**, in conjunction with **CRC Technologies**, have licensed promising anticancer candidates to **Agouron**.