

CURRENT PATENTS GAZETTE



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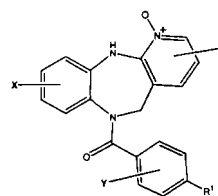
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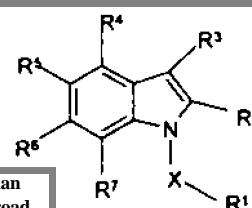
DRUG PATENTING IN CONTEXT

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



This week sees several companies consolidating established development projects with AHP's claims to benzodiazepine based vasopressin modulators (Page 2).....



..... AstraZeneca has no less than five applications covering a broad range of indole derivatives which act as MCP-1 antagonists, useful as antiinflammatories (Page 2)

HIGHLIGHTS THIS WEEK

Equivalent patents are not covered in the *Gazette*, but sometimes it's a bit tough deciding what is actually an equivalent. Obviously if two cases quote the same priority, they must have essentially the same scientific content and quite possibly similar claims. We also see situations (there are a couple of **Schering Corp** examples this week) where an attorney in the US files identical applications on the same day, one regular and one provisional; at the end of the Convention year the regular one goes to **WIPO** as priority for a PCT application while the provisional is converted to another regular application (presumably identical to the first but with a different number) for prosecution at the **USPTO**. Technically there's nothing to connect such documents, but we can usually work out if they're the same. A far more unusual situation can be seen this week in a pair of PCT applications published by **SK Corporation** of Korea, describing a range of tetrahydroisoquinolinalkanol (WO0046204) and **O-thiocarbamoyl-aminoalkanol derivatives** (WO0046191) useful in the treatment of **CNS disorders**. Filed at the Korean Patent Office on 4th and 5th February 1999 neither document claims priority but closer examination reveals an uncanny resemblance to two applications submitted to the USPTO in January 1998, the first of which issued exactly a year ago. Bearing identical titles, inventors and substantially the same subject matter, US59535997 and US5955471 were both filed on 18th January 1998 and issued within 21 months, the former on 10th August 1999, referring to the O-thiocarbamoyl- compounds, while the second followed 21st September. In the latter publication the compounds were described as **monoamine oxidase A inhibitors**. It would seem that the company neglected to convert their applications to PCTs before the end of their convention year and subsequently refiled the documents a fortnight or so later, covering a narrow subset of designated states including Europe, China, Canada, Japan and Australia but excluding the US.

This week's new compound cases sees **AHP** and **AstraZeneca** consolidating some of their existing projects with the publication of multiple applications in the field of **cardiovascular disorders** and **antiinflammatories**. AstraZeneca has a cluster of five applications claiming a broad range of indole derivatives with antiinflammatory properties. Acting as **MCP-1 antagonists**, the new compounds are part of a series of structurally similar indole and substituted pyrrole derivatives that the company has claimed for this action and indications, which can be seen in WO9907351/WO9907678 and WO9940913/WO9940914 respectively. In a similar vein, **AHP** has claims to novel **vasopressin agonists** with four new applications covering an array of tricyclic pyridine N-oxides, pyridobenzodiazepines and pyrido-benzoxazepine carboxyamides, pyrrolobenzodiazepine carboxyamides and thienylbenzoylbenzazepines with this action. These documents follow on from a series of benzodiazepine based vasopressin modulators disclosed by AHP over the last few years, eg WO9820011, WO9906403 and WO9906409, in which the earlier compounds were thought to be selective for vasopressin V2. To date, this project has identified several potential lead compounds including **VNA-932** (preclinical) and **VPA-985** (phase II).

Among this week's granted European patents are a couple of interesting examples from the field of biotechnology. **Novartis** has been granted EP515313B, first filed 20th May 1992, which covers a series of new **somatostatin analogs**. The company has recently developed and launched a new long-acting release formulation of its somatostatin analog **octreotide**, Sandostat LAR Depot, for the treatment of **acromegaly** and to control the severe diarrhea associated with metastatic carcinoid tumors and vasoactive intestinal peptide secreting tumors. Elsewhere, **Genentech** has seen two of its biotechnology patents granted: the **anti-lymphotoxin antibody application** (EP509553B) has taken 15 years to reach grant, first filed as long ago as **1985**, whilst the application covering **purified forms of DNase** (EP644932B) was filed in 1993. Genentech is involved in the development of DNase modulators for the treatment of cystic fibrosis and pulmonary disease. One such modulator **dornase alfa** has been launched extensively. European and Canadian rights for dornase alfa are held by Roche.