

CURRENT PATENTS GAZETTE



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DECEMBER 22ND 2000

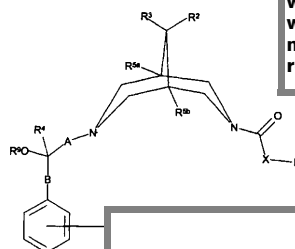
DRUG PATENTING IN CONTEXT

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. Applications filed jointly, representing collaborative research, are highlighted, as are sequences of inter-related documents.

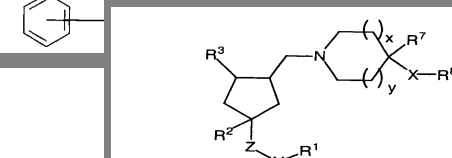
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NEW THIS WEEK



Clustering of invention can be seen among many of this weeks new compound cases with several companies filing multiple applications on related topics.....



..... notable examples include **AstraZeneca** with bispidine compounds for cardiac arrhythmias (above) and **Merck** with cyclopentyl and N-cyclopentyl CCR modulators (right)

HIGHLIGHTS THIS WEEK

Inter-company links inferred from inventors' addresses may be misleading, most obviously because inventors may move from one employer to another. That was certainly the case last June when applications from **Roche** (WO0035906 etc) and **Glaxo** (WO0037444) were published, apparently linked through common inventors, with input from **Pfizer** too. In fact there was no such link, but chemists once employed by Glaxo had been identified on the latter case by means of their new employers' addresses. Bearing this confusion in mind, it is difficult to be certain of the true origin and associations of the application from Aventis published this week on the subject of solid phase piperazinecarboxamide synthesis. Perhaps the strongest link is with a 1998 journal article, for which an author's address is cited as **BMS**. However, it is possible to identify work at both **Amgen** and **Pharmacopeia** with common inventorship. It is unlikely that there is four-way collaboration on this combinatorial library work, but it also unlikely that the all of the ambiguity is due to rapid movement of inventors between posts in different companies.

Clusters of inventions this week characterize the new compound innovation in Section A, with no fewer than 37 cases being grouped, with related work. The companies responsible include **3M**, with three applications claiming a range of urea, sulfonamide and sulfamide substituted imidazoquinolines as immune response modifiers and cytokines biosynthesis promoters, **AstraZeneca**, discussing a series of bispidine compounds (3,7-diazabicyclo[3.3.1]nonanes) useful in the treatment of cardiac arrhythmias, and **DuPont** with three cases relating to heterocycle fused γ -carbolines, serotonin agonists and antagonists. **SB** has eight new additions to an already well-established series of phenyl urea based IL-8 antagonists while **Merck & Co** have six applications covering cyclopentyl and N-cyclopentyl modulators of CCR-5/CCR-3 chemokine receptor activity. Academic institutions do not seem to be immune from this trend with three applications from **Temple University** of Philadelphia claiming an array of 1-(4-sulfamylaryl)-3-substituted-5-aryl-2-pyrazolines and (Z)-styryl acetoxyphenyl sulfides as COX-2 inhibitors with a fourth describing a cell-based assay for screening said inhibitors. Elsewhere, among the week's biotech patenting the ubiquitous **HGS** can also be seen at work with another 11 applications claiming yet more human secreted proteins.

Two weeks ago we announced here that we would shortly be extending the scope of the *Gazette* to include what we described as "**non-chemical therapies**". The broader retrieval strategy will not be used until Issue 0101 (dated January 5th 2001), but a few examples from this new field are included this week simply to demonstrate the kind of invention we intend to feature in future. From Week 0101 there will be a sixth broad subject classification, **Section F**, entitled "**Electrotherapy and Other Non-Chemical Treatments**". This week's examples, however, are to be found with the general Devices and Equipment, in Section E. They include a US patent, issued to an individual inventor, claiming the use of a high-velocity jet of gas and cooling fluid, containing abrasive crystals; the treatment results in removal of surface layers of epidermis, which stimulates synthesis of dermal collagen aggregates. This somewhat painful-sounding wound healing stimulation clearly competes with pharmacologically based treatments, but also with deeper treatments such as CO2 laser skin removal. Wound healing is also the target for **Exogen** in a pair of PCT applications concerned with use of **low intensity ultrasound**. Another example we might have included was **WO0076579** from the Italian company **Meta Instrument** describing an earring-shaped device with electrodes, through which a therapeutic current is applied across opposite walls of the auricular pavillion; this application also appears to involve input from several Russian inventors are based at the **Institute for Development of Biodynamical Instrumentation** in Nizhny Novgorod.