

CURRENT PATENTS GAZETTE



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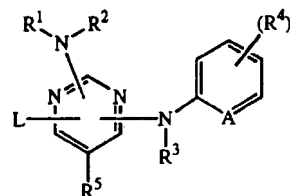
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DRUG PATENTING IN CONTEXT

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

We see Janssen on a rare foray into the area of HIV treatments with claims to pyrimidine and 1,3,5-triazine derivatives acting as inhibitors of HIV replication.



HIGHLIGHTS THIS WEEK

Alpha-Chem Advanced Pharmaceutical Industries (ACAPI), of Cairo is a rare example of an Egyptian company patenting internationally in the pharmaceutical sector, there being no PCT application in the field claiming Egyptian priority during the **past three years**. Even this invention, a method of **preparing human leukocyte alpha interferon**, may not be truly Egyptian, since the inventors' names and the initial application from which priority is claimed are **Hungarian**.

Similar territorial confusion surrounds an application from **Oncopharm**, whose claims to the **synthesis of cephalotaxane derivatives** come from a large team based entirely in **France**, traceable back through one of the inventors to **Pierre Fabre**. Incidentally, this **Texas-based** Company should not be confused with **OncorPharm**, the drug discovery subsidiary established in 1995 by **Maryland-based Oncor**.

Pentafuside, previously known as T-20 peptide and DP-178, is a **fusion inhibitor** showing great promise as an **HIV therapy**. Claimed originally by a team at **Duke University** in **WO9428920**, it is now the subject of process claims from **Trimeris**, whose phase II trials began earlier this year under the FDA's fast-track provisions. One of the established antivirals being tested in combination with pentafuside is the HIV protease inhibitor **amprenavir**, and this (or perhaps its prodrug **GW-433908**) may well be the target for process technology claimed by **Glaxo**.

Zero-order release kinetics are a target for formulation technologists at **Temple University** in Philadelphia, whose annular dosage form is described as donut-shaped, but which must surely be more reminiscent of that well-known mint-with-a-hole-in-the-middle confection. This is by no means a new idea in its simple realization; it must be obvious that, as the tablet dissolves, the growing hole in the middle compensates for the shrinking periphery and a more or less constant release rate results. Earlier this year the inventor published in a learned journal, demonstrating parabolic and zero-order release of **diltiazem, nicardipine** and **theophylline**.

A number of relatively young small specialist Biotech companies feature in this week's *Gazette*. **Planet Biotechnology** founded in September 1994, is developing **CaroRx**, a **SiGA monoclonal antibody** produced in genetically altered plants ('**plantibody**'), for the prevention of bacterial infection leading to dental conditions. The 'plantibody' recognizes an epitope on the adhesion molecule of **S mutans**, and is currently in phase II. Another US-based Company is **Prolume**, which focuses on luciferase high-throughput screening assays. The Swedish company **BioNative** was formed by researchers from **Umea University** and has developed **Interferon Alfanative**, a highly purified leukocyte interferon which consists of several naturally occurring interferon- α subtypes. The interferon has been launched for the treatment of patients with cancer who generated neutralizing antibodies against genetically engineered interferons. Two British companies also feature; **Biogemma** is based in Cambridge UK and all recent applications focus on **dehiscence**, and involve inventors at **Univ Nottingham**, and **Tepnel Medical** who seem to focus on nucleic acid technology.