

CURRENT PATENTS GAZETTE



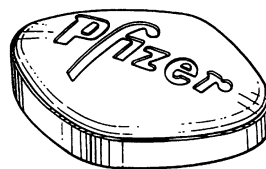
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DRUG PATENTING IN CONTEXT

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



A rare example of US design patents is seen in this week's *Gazette* with Pfizer's claims to tablet designs for VGR 50 - Viagra (50mg).



CONTENTS

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

US Design Patents are not normally included in Current Patents *Gazette*, but there are two published this week in the name of **Pfizer** that are undoubtedly relevant to a pharmaceutical product, and impossible to resist. The adjacent specifications each contain eight different views of a biconvex tablet which is basically diamond-shaped, but which has elegantly rounded apices and slightly convex edges. A clue as to the intended active ingredient lies in the wording engraved on the upper and lower surfaces - "Pfizer" and "VGR50" - and in case there should be further doubt, the '973 description adds that "The characteristic feature of the design resides in the color blue". These must surely be **50mg Viagra** tablets. The Examiner's citations hold further interest, since the sources of relevant prior art include several TV news programmes (from NBC, ABC and CNN), Merck's Midamor pill, and an Avon C-22 bar of soap, apparently dated 1990. More disturbingly, as long ago as 1924 there was something called an Element tablet #530, made (or published) by Thomas Mills & Brother, which apparently resembles Pfizer's current design.

The difficulties encountered in deciding exactly what to include in the *Gazette* are typified by **WO9946258**, which in strict technical terms seems to be a new invention, sharing no application or priority data with any existing publication. However, we have formed the view that the **isoindoline antiinflammatory cytokine inhibitors** described by **Celgene** are precisely those **first seen seven months ago** in **US5874448**, even though the two cases claim different priorities, separated by five months. The US patent was covered in the week 9908 issue of Current Patents *Gazette*. A further problem in selection is the frequent application of incorrect, or at least suspect, International Patent Classifications (IPCs). Two such cases this week are a **Hoechst** application describing synthesis of a compound which looks very much like a pharmaceutical product, but which has been assigned to the (non-existent) IPC **A61r**. The opposite seems to have occurred on a case from **Tiernan Communication** describing a **Reed-Solomon coder-decoder**; this electronic device almost certainly has no relevance to drug discovery or development, and yet has been classified as a **medicinal preparation (A61k)**.

The **Hoechst invention** referred to above is a definite case of unfortunate timing, since the specific product named is **MDL-100907**, a **5-HT_{2A} receptor antagonist** which showed excellent potential as a schizophrenia treatment. Appearance of a single-compound process case such as this would normally be an indication of intensive development activity, reflecting the need for scaled-up production of raw material for use in large-scale clinical trials. That was indeed the case until recently, and the possibility of a first launch late in 1999 was being mentioned. But then a few months ago the decision was suddenly taken to discontinue development of this Merrell Dow candidate, because of poor results from phase III trials; the press release announcing this employed the interesting expression "effective pipeline prioritization". All is not lost, however, since a **Hoechst-Roussel** compound with the same mechanism (**HP-873**) is also at the phase III stage. The twist in this story is that HMR discontinued development of the compound, now known as **iloperidone**, over two years ago; it was licensed to **Titan Pharmaceuticals**, who in turn sublicensed it to **Novartis**. HMR will no doubt receive royalties when this rival product reaches the market.

A **confectionery company** is claiming therapeutic benefit for **chocolate bars** at the same time as a pharmaceutical company is claiming plant for making chewing gum. **Warner-Lambert's** invention is a cooling tower for use in the continuous production of a chewing gum base, being one of only a handful of companies to retain a substantial interest in confectionery products. **Mars Inc**, on the other hand, is a dominant player in that sector, but is claiming pharmaceuticals which contain **cocoa** and/or **nut procyanidin(s)** in combination with **L-arginine**; this has the effect of inducing a physiological increase in **nitric oxide production**, which in turn assists in the treatment of such conditions as **hypertension** and **cancer**. Confectionery, it seems, is after all good for you, especially nut chocolate.