

CURRENT PATENTS GAZETTE



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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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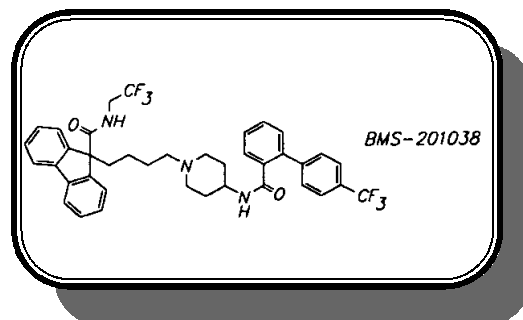
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DRUG PATENTING IN CONTEXT

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.

Combinatorial libraries of multibinding ligands as the subject of no less than 43 applications from Advanced Medicine of South San Francisco, covering a very broad range of pharmacological activities and including claims to analogs of BMS-201038, a phase I microsomal triglyceride transfer protein inhibitor from Bristol Myers Squibb.



HIGHLIGHTS THIS WEEK

At a late stage in production of last week's *Gazette*, we recognized that **Zeneca's novel pyruvate dehydrogenase activator** case, WO9962873, was related to another case, WO9962506, claiming use of the same compounds in elevating PDH. Although this relationship was correctly recorded in our production database (on which IDdb records are based), the second number was not inserted into the printed Section A record. Please accept our **apologies for this omission**.

An odd situation arises in the field of **plant genetics**, apparently amounting to a collaboration between **Searle** and **Abbott**, though the two applications in question do not make this clear. Both are entitled "**Polyunsaturated fatty acids in plants**", and describe nucleic acid sequences and constructs encoding fatty acid desaturases. Abbott is named as applicant on one, which was filed by an Abbott attorney and names inventors resident in Ohio and California. However, the version filed by the Monsanto/Searle attorney names only the Californian inventor, and cites **Celgene as the applicant**. The link between California-based Celgene and Monsanto seems not to be a formal one, though a former Monsanto employee took up the position of President at Celgene's Celgro subsidiary in mid-1997. Although Monsanto is a very high-profile innovator in the contentious field of genetically-modified (GM) crops (with another US patent on soybean cultivars issued this week), Abbott does not share that reputation. Abbott's interest in **lipid nutrition**, however is well established, and the publication of these parallel applications serves to justify the policy of including GM crop patents in this *Gazette* when there could be some therapeutic or "**nutraceutical**" implications.

If not unique, the publication on one day of 43 related applications from the same company must be regarded as extremely unusual. **Advanced Medicine** Inc of South San Francisco has a PCT application in which **combinatorial synthesis of multibinding ligands** is claimed, based on eight US applications filed in June and July 1998. This is supported by no fewer than 42 more specific cases detailing particular receptor and enzyme mechanisms, and naming 35 different inventors, typically in teams of three or four. There was perhaps a coded warning of this onslaught in the title of the company's WO9846270, relating to "Molecules presenting a multitude of active moieties" - the term multitude is rarely seen in pharmaceutical patents. Among the compounds described is **BMS-201038** and analogs of this phase I microsomal triglyceride transfer protein inhibitor from **Bristol Myers Squibb**.

Last week, a US court ruled that the patent for the naturally occurring form of the widely used reagent **Taq DNA polymerase** was fraudulently obtained and is thus **invalid**. It was claimed that the US Patent and Trademark Office was misled a decade ago by scientists from the **Cetus Corp** which was bought by the **Hoffman-La Roche** in 1991 (*Nature* **402**, 709; 1999). Roche purchased the Taq patent as part of the deal. The ruling was issued in a long-running federal lawsuit in which Roche originally accused the **Promega Corp** of infringing its patent by selling its own native **Taq** to researchers. The patent includes three claims, one of which is for the native Taq and another for recombinant Taq. This lawsuit began after a disagreement between Roche and Promega over Taq licensing terms. Promega, a privately held Wisconsin company, is also involved in challenging **Roche's patent in Europe**. The decision could mean increased competition leading to cheaper reagent prices, as well as legal action to recover unnecessary costs. And, depending on future court rulings, the patent dispute may also undermine Roche's related patent for the **DNA-amplification process** of PCR (polymerase chain reaction). Roche disputes this, saying the ruling only affects native Taq, which is used by a much smaller proportion of the research community for PCR.