

# CURRENT PATENTS GAZETTE



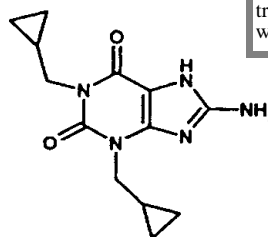
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## DRUG PATENTING IN CONTEXT

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



SmithKline Beecham may be returning to the discontinued PDE IV/TNF $\alpha$  synthesis inhibitor cipamfylline, with claims this week to new polymorphic forms and to the treatment of pruritic diseases with 8-substituted xanthines.

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### 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

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## HIGHLIGHTS THIS WEEK

**Prominent among this week's Chemical Process cases** are several covering aspects of process technology and devices. **SensorChem** has an application claiming the **immobilization of high-density monolayers of oligonucleotide derivatives as on solid surfaces**. This invention forms part of their development of the "**Genechip**", a miniaturized electronic device, similar to a microchip, interfaced with a biological component, used to gather information about a biochemical environment. The sensitivity of the biosensor is dependent upon the density of DNA molecules attached to the surface. SensorChem's new immobilization processes improve the performance of genechips and related technologies, providing powerful drug discovery tools that enable companies to screen compound libraries for treatments for conditions such as cancer, AIDS and other viral infections, bacterial pathogens and many more. Elsewhere, **Argonaut** has two **combinatorial chemistry devices**, a reagent delivery/vent unit containing a plurality of reaction vessels and a metering assembly that uses light refraction to determine the liquid level in a container, while **3M** claims a tube type device for testing the effectiveness of a sterilization procedure.

**Merck** seems to be consolidating several projects this week with **8 applications** referring to new compounds, all based upon previously established work. These include four cases claiming new **carbapenem antibacterials**, an area in which the company has shown a great deal of activity during the early part of this year, with a number of publications claiming new derivatives and synthetic routes of these compounds having already appeared in recent weeks. Other topics covered this week include **azapeptide acid based cell adhesion inhibitors**, **benzodiazepine antiarrhythmic agents**, **immunosuppressive tetracyclic triterpenes** and another in the recent series of **farnesyl protein transferase inhibitors**. **SB** also appear to be covering familiar ground with new crystalline forms of the previously discontinued of **cipamfylline**, a **PDE IV inhibitor** and **TNF $\alpha$  synthesis inhibitor**, while another case covers **treatment of pruritic diseases with 8-substituted xanthines**, which may be a recontinuation of cipamfylline

**Specialist companies** have a large presence in this week's Biotechnology section. New Ohio-based **Biocrystal** claims a method for inhibiting metastasis and tumour cell growth by modulating tumour expression of Fas ligand. Inventor connections include **CLI oncology**, as well as numerous individual applications on cancer-related topics. **Birkmayer Pharmaceuticals** of New York claims an enzyme-based assay for determining effects of exogenous and endogenous factors on cellular energy production. This young company seems to be specializing on energy-related topics. This follows a US application claiming methods for the treatment of chronic fatigue syndrome. Swedish company **Melica** has what appears to be its first application this week, claiming methods for determining coat color genotypes in pigs. The company already has links to larger organizations; one featured inventor is from **Du Pont**. Other specialist companies with applications include **Exact Laboratories** of the United States, **Puratos** of Belgium and Vancouver-based **Viratest Carcinogen Monitoring**.

**Errata:** A small mistake last week led to two items from Section A, a Merck case covering naphthosultam antibacterials and a Neurosearch/Meiji Seika application for benzimidazole GABA<sub>A</sub> modulators, both being assigned the same publication number, WO9918954. This was in fact the number of the Merck application, while the Neurosearch case should have been identified as WO9919323.