

# Current Patents Gazette

## Patenting in Context

### News & Highlights from week 0808

The UK Patents and Designs Journal (PDJ No. 6196) contains details of only one event concerning Supplementary Protection Certificates (SPCs) this week, the granting of a Plant Protection SPC to **Nippon Soda** for **acetamiprid** on **EP0456826** which now expires January 26, 2015. However, two further SPC applications were filed in the UK on February 8, 2008 but have not yet been published in the PDJ.

The first of these was filed in the name of **Amgen Fremont Inc** on **EP0979246** and aims to further protect **panitumumab**. If granted, the SPC will extend the protection based on EP0979246, which contains the product claims for this biological product, to December 04, 2022, fifteen years after the earliest EU approval. Amgen Fremont was previously known as **Abgenix**, which was acquired by **Amgen** in April 2006. In the EU, panitumumab (**Vectibix**) is indicated as a monotherapy for the treatment of patients with metastatic colorectal carcinoma (mCRC) tumors expressing EGFR with non-mutated KRAS and after failure of fluoropyrimidine-, oxaliplatin-, and irinotecan-containing chemotherapy regimens. Launched in the US in October 2006, Amgen reported sales of \$170 million

for panitumumab in 2007. In February 2008, **Takeda** became the Japanese licensee for panitumumab.

The second new SPC application was filed by **GlaxoSmithKline Biologicals (GSK)** on **EP0729509** based on the UK Product License granted for **Priorix-Tetra**. This is a live attenuated **MMRV vaccine** which combines the company's established measles, mumps, rubella (MMR) formulation with varicella zoster antigens, as a potential prophylactic against all four pathogens. It was launched first in Germany in August 2006, following its approval on July 26, 2006. It is this earlier date which must be used for SPC calculations. However, any granted SPC on this patent will expire November 15, 2019 – five years after entry into force.

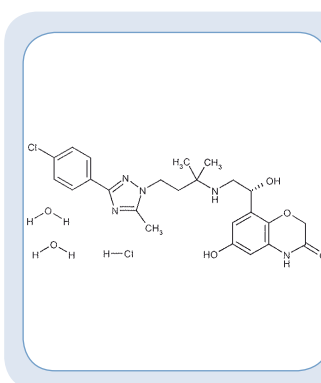
On February 15, the Icelandic Patent Gazette reported four SPCs filed in 2007 between March and September. Two of these were for veterinary products, **Pfizers' maropitant** and **Merck Frosst Canada's firocoxib**. A third, also filed by Merck & Co, was for **sitagliptin**. This has the same issues as the SPC applications filed on **EP1412357** in the UK, France and Finland. Based on the EU approval date of March 21, 2007 any granted SPC

must expire March 21, 2022 over 3 months before the normal patent expiry. It would appear therefore that no SPC can be granted for sitagliptin on this family. The final application was on **Schwarz Pharma's IS2044** for licensee **Pfizer's fesoterodine (Toviaz)**, which will expire April 2022, if granted.

**Innovata Biomed** filed two new applications describing **improvements relating to inhalers** (GB0800457 and GB0800459). Innovata Biomed has been developing in the field of dry powder inhalation and inhalers since the late 1980s, with the UK launch of the first Innovata Biomed inhaler, the '**Clickhaler**' incorporating **salbutamol**, in 1997. The company was acquired by **Vectura Group** in January 2007 and is currently developing two combination therapy products in the **Duohaler®** device, each using two different established

respiratory drugs for the treatment of asthma/COPD.

**Endocrine Pharmaceuticals** has filed two new UK initial applications claiming **peptides and their uses** (GB0800373 and GB0800502). This picks up from similarly entitled applications from spring of 2007. The company's primary focus appears to be the natural hormone **micrin**, with previously published claims in **WO0032208** and **WO0193882** targeted at reducing tissue overgrowth affecting the viscera and endocrine organs, and inhibiting tumour cell growth. Their intention is the exploitation of micrin-related drug candidates in areas where medical needs are currently not provided for. In 2004, the company announced its lead compound, **EPL001**, and has recently disclosed biological characterisation using model systems in a paper in *Nematology* in February 2008. The company is now seeking to outlicense EPL001.



**The structure for Boehringer Ingelheim's beta-2 agonist BI-1744-Cl has been identified**

# UK Initial Applications

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A0 applications filed January 7th – January 13th 2008 – expected to see publication in mid July 2009

- **PM Partners** has filed four UK initial patent applications (GB0800698, GB0800699, GB0800700 and GB0800701) relating to **F2, F7, F9 and F10 polypeptides**, respectively, and **their use**. The applicant appears to be a company newly registered in Geneva in mid-2005, although at that time telecommunications and information were placed on record as its principal business; the present applications, clearly biochemical in nature, may therefore have been filed in the role of technology transfer broker. It must be assumed that these polypeptides are fragments of the coagulation factor genes, F-II, F-VII, F-IX and F-X.

- **Probiodrug** has filed GB0800574 to protect **mouse models carrying a knock-out mutation of the QPCT gene**. Expressed in this way, the subject appears new to the Probiodrug, until it is recognized that the gene relates to **glutaminyl-peptide cyclotransferase** (glutaminyl cyclase or QC), which already features as a target in much of the German company's patenting. The present application may in fact be a re-filing of subject matter lodged as GB0701064 just under a year previously (January 23 2007) when Alzheimer's disease (AD) was specified as the indication under consideration. Already in August 2005 the company was reporting the results of screening a library of imidazolyl thioureas as potential therapies for AD, based on the implication of QC in formation of amyloid plaques. Two years earlier, a team including **Dr Hans-Ulrich Demuth**, one of Probiodrug's

founders, had begun filing patent applications covering QC inhibitors, starting with **WO2004098591**.

- **The University of Strathclyde** is patenting further **weight reducing compounds** (GB0800383). Although there is a gap of more than a dozen years, it is tempting to see this as a continuation of the 1990s work represented by **WO9636325**, for example, where galegine and its derivatives were claimed as agents for reducing weight. The speculation does however turn out to be correct, in that inventors from the original UK filing (May 1995) remain involved in the development and promotion of extracts of **Galega officinalis** (Goat's Rue or French Lilac), such that towards the end of 2002 principal investigator **Dr Brian Furman** was able to announce commitment of substantial funding to his project by the Korean company **Hyundai Pharmaceutical**. It is therefore likely that the university is now seeking protection for further chemical compounds derived from galegine.

- **The University of Greenwich** has lodged GB0800741 with claims to **cyclic triazo and diazo sodium channel blockers**. From the timing of this initial filing, on 16 January 2008, it seems virtually certain that it relates directly to the topic covered in **WO2008007149**, published the following day by WIPO. This being the case, the agents will be acting especially on voltage-gated Na channels, with a wide range of neurological and folate-mediated

disorders as possible indication. Two of the named inventors are **Drs Laurence Harbige and Mike Leach**, key staff in the university's Bio-Medical and Drug Discovery Group. There is evidence that the university has been linked with ion channel work at **GSK**, specifically the Neurology CEDD in Harlow, on the potential anti-ischemic agent **BW-202W92**.

- **Serentis** has filed three initial UK patent applications (GB0800487, GB0800488 and GB0800489) covering **therapeutic uses**, the second of these specifying **use of opioids in wound healing**. The company, based at Cambridge Science Park, appears to have been named on only one published patent application to date, namely **Sosei's WO2006027579**, in which it is given as the address of one of the inventors, **Dr Andy Baxter**, a co-founder of **Serentis** in 2006. Of the present applications, the one making explicit reference to wound healing probably relates to **SRD-285**, described by the company as an established analgesic, one of four late-stage preclinical candidates reportedly due to enter proof-of-principle phase II clinical trials during 2007-2008. The other two applications could well relate to other listed candidates, which target atopic dermatitis, mucositis and pruritis.

- **Cytosystems** has filed an initial application (GB0800311) claiming **apparatus and method for filtering biological material**. The company, established in Aberdeen in November 2004,

specializes in the development of minichromosome maintenance proteins (MCM) diagnostic technology. Much of their work appears to be based upon research on MCM protein antibody diagnostics for cancer by **Professor Ron Laskey** and **Dr Nick Coleman** (**Medical Research Council's** Research Centre, **University of Cambridge**) dating back to the mid 1990s. In March 2006, Cytosystems secured an exclusive global licence to this work and associated patent portfolio (including **WO9749797**, **WO9911776** and **WO9921014**) from **Cancer Research Technology** for the research and development of MCM protein antibody diagnostics for cancer of the bladder. The company is seeking to develop an integrated diagnostic package, based on this **MCM** technology and including IP protected engineered urine collection systems and protocol.

- **GW Pharma** and **Otsuka** have filed a new UK initial application covering the **use of cannabinoids in combination with an anti-psychotic medicament** (GB0800390). Appears to be the first filing to emerge from a three year collaboration deal between GW Pharma and Otsuka to research and develop drugs based on cannabis as treatments for cancer and CNS disorders announced in July 2007. Previously, GW Pharma had sold the US rights to its lead cannabis-based product **GW-1000 (Sativex)**, targeted at neuropathic pain associated with multiple sclerosis and cancer, to the Japanese company in February the same year.