THOMSON

Current Patents Gazette

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Patenting in Context

DOLPHIN

The records appearing in this Gazette will be added to DOLPHIN, the database Of all pharmaceutical inventions in the next week. Based on the INPADOC database produced by the European Patent Office, it covers all national and international patents with relevance to pharmaceutical research and development published from 1968 onwards and selected patents from earlier years. DOLPHIN contains information on bibliographic data, contents, associated products, legal status, licensees and context of patents, which is presented in a format to convey all aspects of a patent at a glance.

News & Highlights from Week 0642

The PDJ this week (No. 6126) contains no pharmaceutical SPC information, but reports that **Mallinckrodt Veterinary's** Supplementary Protection Certificate (SPC) for **2,4-Diamino-5-(8-dimethylamino-7-methyl-5-quinolylmethyl) pyrimidine** in combination with sulphadimethoxine expired on 26th September 2006. The SPC was based on **EP0051879** (assigned to **Glaxo Wellcome)**, which discloses substituted pyrimidines.

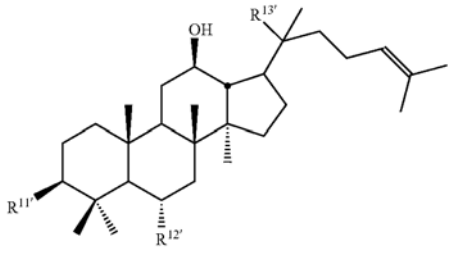
BioDiscovery Inc, a company developing software to revolutionize drug discovery and diagnostics through analyzing data produced by high-throughput microarray technology, has recently been granted **US07099502**. This patent follows a series of claims from BioDiscovery covering related microarray technologies and claims a method for automatically detecting, extracting and assessing the quality of data generated by microarrays, including spot and array level quality control measures. BioDiscovery is reported to have released a new array module for its Imagene software this month. The **ImaGene aCGH** (array Comparative Genomic Hybridisation) module provides an advanced array-based DNA copy number analysis and visualization tool for the drug discovery sector.

In the Australian Official Journal of Patents this week (volume 20, number 40) the **University of Queensland** is reported to have filed for a term extension in Australia based on **AU651727**. This patent covers **Merck & Co's** product **Gardasil,** a quadrivalent Human PapillomaVirus (HPV) vaccine against the four common types of HPV (HPV 16, 18, 6 and 11). **UniQuest**, the technology transfer company of Queenland University, licensed its HPV technology involving genetic engineering, to **CSL**, which acquired the rights to products arising from the collaboration. CSL then granted Merck & Co a co-development license for worldwide marketing excluding Australia and New Zealand. This appears to be the first filing for an extension on any of the equivalent patents for Gardasil and if granted, the extension is expected to protect the vaccine until July 2017. **GSK** is developing an HPV combination vaccine, **Cervarix**, which targets only two strains of HPV infection; expectations are for a 2008 launch, 2 years after Gardasil. However, due to its broader coverage compared with GSK's Cervarix, analysts at **Citigroup Investment Research** predict that Gardasil sales could be nearing $2 billion by 2010. An agreement signed in February 2005 stated that Merck & Co was to pay an upfront fee and royalities from sales of Gardasil to GSK to resolve their dispute over patent rights related to their rival Phase III human HPV vaccines. In a separate negotiation, CSL Ltd, the co-developer of Gardasil, is to receive milestones and royalties from GSK related to sales of Cervarix.

Amarin Corp announced the grant of **US7119118** (**WO0044361**) covering the use of its proprietary ultra-pure ethyl-EPA compound, **Miraxion**, in the treatment of Hungtington's Corea on the 11th Oct 2006. The patent, also covering a formulation of the phospholipase inhibitor was originally assigned to Amarin's subsidary **Laxdale Ltd**, and is due to expire in 2021. The company originally licensed LAX-101 from **Scotia Holdings**; for the product patent see **WO9816216**. **Dyax Corp** announced the grant of its sixth US patent to strengthen its Phage display portfolio. The issued patent, **US7118879**, provides additional method claims on the selection of antibodies physically associated with filamentous phage.

Vanilla: A patch on viagra?

A non-transdermal "scratch n' sniff" patch containing **ethyl vanillin** went on sale as **SFM** to combat reduced male libido this week. The revolutionary patch, which mediates its effects via nasal smell receptors, appears to be covered by **WO03074037** and its US equivalent **US20050222273**; application '037 is assigned to **CST Medical Ltd** and both applications name Dr George Dodd, a key inventor in this research. **Dr George Dodd**, who started his research career at **Unilever** and was instrumental in the foundation of an "electronic nose" by which to investigate "smell receptor" and now working as a consultant for CST, states that vanilla is structurally similar to **dopamine** and triggers feelings of pleasure. SFM was launched last year (spring 2005) as **Scentuelle** for female sexual dysfunction; which is the only indication covered by the claims in both the US and WO. Trials carried out at the **University of Lancashire**, and funded by **Medaro Medical**, concluded that almost two-thirds of the men who tried SFM were sexually more active and had an enhanced sexual desire. Scentuelle has certainly proved to be a hit with the ladies according to company reports, but with its apparent lack of side effects, will men favour an hourly whiff of vanilla over popping a pill to counter the effects of a low libido?



The Taiwan based biotechnology company, Amersen Biosci, observes the publication of its first US patent application: compound K derivatives for cancer

UK initial ("A0") applications filed September 6th - 12th 2006

Bernard M Turner has an application this week entitled wide-spectrum chemotherapy of cancers and bacterial diseases. This adds to his previous applications relating to agents for treating cancer and infections (particularly HIV-1), although he does not appear to have any published applications to date.

Electrophoretics Limited, a subsidiary of **Proteome Sciences plc**, has filed for markers useful in the diagnosis of renal transplant rejection and renal damage. Electropheretics have several previous applications assigned to them which disclose diagnostic markers for cancer including WO9842736 (colorectal), WO9835985 (lung) and WO9745445 (esophageal).

Evolutec, the biopharmaceutical company who specialise in developing drugs for allergy, inflammation and autoimmune disease have filed three applications relating to methods for treating peripheral nerve disorders, methods for treating respiratory disorders and histamine binding proteins. Also assigned to Evolutec is **WO2004087188** relating to histamine binding compounds.

The **Medical Research Council** (MRC) has filed an application this week entitled polymerase. MRC has previously filed **WO-2005045015** which claims methods for the generation of DNA polymerases exhibiting a relaxed substrate useful for incorporating non-natural nucleotide base analogues into nucleic acid chains and are disclosed to be useful for diagnosing tumors or HIV infection.

The Queen's University of Belfast has filed an application on biomarkers. In the past they filed **WO-2005121786** on **BRCA1** markers useful for detecting predispositions to cancer which seems to be their main area of research.

Renovo Limited specialises in scar prevention and reduction and this week has filed an application for nucleic acids and methods of protein expression. Renovo Limited is a spin out from Manchester University and was founded in October 2000. They have two previous published patents **WO-03093506** and **WO-02070745** which claim genetic tests for diagnosing a disease associated with inappropriate fibrosis or scarring such as Dupuytren's disease.

Smart Holograms Limited has filed an application entitled 'analyte detection'. Known as Smart, the company was co-founded in 2002 by Professor Chris Lowe of Cambridge University to exploit new technology based on producing holograms in a range of polymer films and tailoring these holograms for use in sensors for medical devices and diagnostics. The Company has three products in development: a minimally invasive sensor for continuous glucose monitoring (GlucoProbe), a portable sensor device (the PathoTester) for detection of microbial contamination and a novel sensor strip for analyte detection. DOLPHIN holds 7 patents from Smart, disclosing holographic sensors.

Smiths Group has filed claims for a pneumothorax treatment apparatus and methods this week. Smiths Medical, part of Smiths Group, provides a selection of products for treating pneumothorax and hemothorax, plus drainage of effusions and empyemas. These include chest drainage catheters for example pleural catheters, thoracic catheters and trocar catheters. This follows an earlier filing from Smiths Group, US20060070628, claiming a tracheostomy apparatus.

UCB SA has an application claiming novel **2-aminopyrimidine** derivatives, processes for preparing them and pharmaceutical compositions. This appears to be the first application from UCB claiming compounds with 2-aminopyrimidine as the key functional group.

UCL Business PLC has four applications this week relating to different areas of research: peptides and methods, biomarkers for assessing liver function, phase contrast imaging and imaging apparatus and method. One of these applications may be related to **WO2006056794**, claiming the use of **ornithine** with **phenylacetate**, **phenylbutyrate** or **isoleucine** for treating liver decompensation or hepatic encephalopathy. A named inventor on this application has also done research into hepatic guanylate cyclase activity (see: FEBS Lett. Apr 3, 2006;580(8):2123-8).

The University College Cardiff Consultants Ltd is seeking protection for an application relating to cartilage repair. This may expand on previous work done relating to cartilage repair using survival of growth factors to inhibit apoptotic responses to cartilage injury (WO9918991).

VASTox PLC has three applications this week all entitled treatment of Duchenne muscular dystrophy (DMD). Previous work relating to this disease from VASTox includes three applications expression of the utrophin gene (**WO0125461, WO9722696** and **WO9634101**), with the named inventors including VASTox's co-founder. In June 2006, the EMEA recommended awarding orphan drug designation for VASTox's initial compound for the treatment of DMD.

Vernalis R&D Ltd has filed an application claiming pyrrolopyrimidine compounds. This is likely to relate to **WO02055084**, which claimed novel purinergic receptor antagonist pyrrolo[2,3-d]pyrimidine derivatives, useful for treating e.g. Parkinson's disease, depression, memory impairment, ADHD or narcolepsy.

Due for publication in March 2008