

CURRENT PATENTS GAZETTE

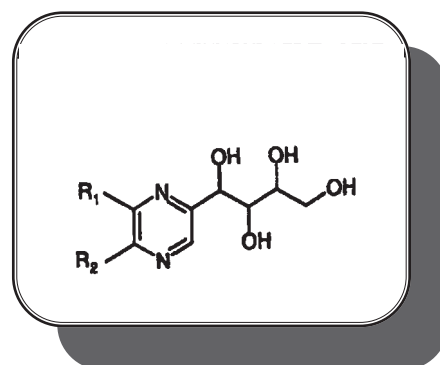


www.current-patents.com
ISSN 1464-3499

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.

THIS WEEK RPR moves into new areas with seven applications describing the use of polyhydroxypyrazines in the prevention and treatment of diabetes.



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New Uses, Formulations & Methods of Treatment- developments extending and enhancing the utility of existing products, including diagnostic and analytical applications

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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

Semaphorins appear to be an increasingly popular area of research. These chemorepellants which inhibit the growth of neurones, are thought to have diverse therapeutic applications, including the treatment of neurological disease, inflammation, immune deficiency, viral infection, and neoplasm. This week, **Johns Hopkins University** claims evidence that **neuropilin**, a type I transmembrane protein is a **semaphorin III (sema III) receptor**, similar to an application last week from the **University of California**, on SR1 and SR2 receptors. Other interested parties include **Sumitomo** with WO9720928, WO9811216, and WO9815628, and **Genetics Institute** with WO9853065, all claiming the isolation of novel semaphorin genes.

RPR seem to be moving into new territory with seven applications claiming **polyhydroxypyrazines** useful in the **prevention and treatment of diabetes and its complications**, based on the work of two inventor teams better known for work in other fields. One team, **Bashiardes et al**, has been working extensively on **cyclosporins** as **viral replication inhibitors** in the treatment of HIV and retroviruses, as shown in WO9828328, WO9828329, WO9828330 and WO9849193. The other team appears to have concentrated on the use of **taxoids** in the treatment of **neoplasm** eg EP821680, WO9412485, WO9533737 and WO9632387 among countless others.

Telemedicine is the intriguing title of an application from **Abbott** this week. This publication describes the use of automated process and computer systems for **test tracking analysis and reporting** to provide a global communications network for patients, health care providers and public health agencies. A sample may be tested in a laboratory or the patient's home and the results entered into the system or network, alongside the patient's profile and medical history, for comparison against databases of diseases and disorders, treatments and care plans, medicines etc. The system can then transmit an analysis and proposed treatment to the patient's physician or health care provider for approval before the test report and recommended medicine is passed on to the patient. This rapid, accurate system can be used effectively to detect many types of chronic and infectious diseases, genetic conditions as well as to automatically administer non-invasive tests, such as for vision and hearing, and cognitive function tests to monitor the progress of Alzheimer's disease.

Life Technologies has claims this week to **nucleic acid ladders**, used as standards for estimating the size of nucleic acid molecules, in terms of numbers of base pairs. The use of biopolymer ladders to obtain structural information was noted previously in WO9636732, a three-way collaborative filing between **Scripps, Rockefeller and CIPHERGEN**. Also in the biotechnology field, the prosaically named **Nippon Meat Packers** claim transgenic animals that have a human complement regulator (DAF/CD55) gene. This Osaka-based company, despite its name, clearly has sophisticated biotechnology capability, having previously worked on such topics as **bone morphogenic protein** (WO9533058) and **complement inhibitors** (WO9744449).

Osteoporosis is among the conditions targeted by **Roche** this week are dihom-*seco*-cholestane derivatives are described as possessing two **unsaturated bones** (sic), an entirely appropriate typographical error. These retinoids do indeed contain a 1,3-butadiene-type linkage, and are effective in a range of conditions related to abnormal levels of vitamin D and IL-2. On a similar theme, perhaps, inventors at **New York University** contrive to mention **Bonzo** and **BOB** in the abstract of an application concerned with receptors associated with viral entry into cells. These two new **HIV/SIV translocation-promoting agents** form the basis for potential therapeutic and diagnostic agents, and for a method of identifying other such agents. A trio of cases introducing unusual, not to say bizarre, terminology is completed by **Regeneron's** effort, in which modified **Noggin muteins** are claimed jointly with the **University of California**.