



## **Starpharma and Industrial Research Ltd Establish Joint Venture to Commercialise Glycodendrimers as Pharmaceuticals**

**Joint Venture Supported by \$NZ945,000 Grant**

**Melbourne, Australia, 3 March 2005** – Starpharma Holdings Limited (ASX: SPL, USOTC:SPHRY) of Melbourne, Australia and Industrial Research Limited, New Zealand, today announced that they have entered into a joint venture to accelerate the development of carbohydrate functionalised dendrimers (glycodendrimers) for use in therapeutics, antigen presentation and as biologically active compounds.

This coincides with a \$NZ945,000 grant from the Australia New Zealand Biotechnology Partnership Fund to support the joint venture activities. Industrial Research will invest a further \$NZ1.02 million in the field to position New Zealand industry as a leader in the development and commercialisation of glycodendrimers for pharmaceutical applications.

Starpharma and Industrial Research have been working on the development of glycodendrimers since June 2003, following a grant of \$NZ5.9 million from New Zealand's Foundation for Research Science and Technology. This investment has established a leading edge capability for the discovery of carbohydrate-functionalised dendrimers for pharmaceutical use.

The joint venture will select a series of lead candidates for further development. Starpharma will take a lead role in the development and commercialisation of products with Industrial Research, and Industrial Research's cGMP\* manufacturing business unit, GlycoSyn, will provide manufacturing and specialised expertise in carbohydrate design, synthesis and analysis.

One of the first projects in the pipeline involves Industrial Research undertaking cGMP manufacture of intermediates used in the production of Starpharma's vaginal microbicide – VivaGel™, a polyvalent dendrimer-based pharmaceutical being developed to prevent the spread of HIV/AIDS, and potentially other sexually transmitted infections including genital herpes.

According to the Joint United Nations Programme on AIDS and the World Health Organisation, in 2004, nearly 40 million people globally were estimated to be living with HIV. The AIDS epidemic claimed more than 3 million lives and close to 5 million people acquired the human immunodeficiency virus (HIV) in 2004.

Dr Richard Furneaux, GlycoSyn's General Manager of Chemistry at Industrial Research says he is extremely excited about the collaboration with Starpharma and the benefits it offers. Dr Furneaux said: "Starpharma have the founding intellectual property in the field of dendrimers as pharmaceuticals and we have enjoyed a strong collaborative research and development relationship with them for some time. This joint venture, together with the support from government, takes New Zealand biotechnology to a whole new level of business engagement. Now we have the honour as a New Zealand based company to be actively involved in bringing an HIV drug to market that could potentially save millions of lives."

Dr John Raff, Starpharma's CEO said: "We believe that this new category of pharmaceuticals based on glycodendrimers will potentially lead to a large number of new products for the pharmaceuticals industry. Industrial Research has a very strong and internationally competitive capability in the field of carbohydrates and we are very pleased to enter into this long term relationship to create value from dendrimers and carbohydrates together as pharmaceuticals."

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\* **cGMP** current Good Manufacturing Practice

#### **About Industrial Research**

Industrial Research Ltd is a commercial company with the New Zealand government as the shareholder. It is an innovation focussed business, utilising world-class science platforms to create globally competitive, market viable technologies. A driving factor is to establish science and business connections throughout the world, with a view towards commercialising technology that will establish high value industries. Biotechnology is a key industry sector that the company is committed to servicing. <http://www.irl.cri.nz>

#### **About GlycoSyn**

GlycoSyn is a business unit of Industrial Research Ltd – established to develop and manufacture the novel active pharmaceutical ingredients required for use in clinical trials under cGMP conditions. <http://www.glycosyn.com>

#### **About Starpharma:**

Starpharma Holdings Limited (ASX:SPL, USOTC:SPHRY) is leading the world in nanomedicine. Its lead product in development is VivaGel™, a vaginal microbicide gel that has been developed for women as a preventative against the sexual transmission of HIV. It has also shown activity in animal studies for the prevention of other sexually transmitted diseases including genital herpes. The Company has a broad range of opportunities arising from its innovations involving the discovery and development of pharmaceutical nanotechnology products using dendrimers and the multi-binding phenomenon of polyvalence.

SPL also has an equity interest in a Michigan based company – Dendritic NanoTechnologies, Inc. (DNT) – established with the US pioneer of dendrimer nanotechnology Dr Donald A. Tomalia.

**Microbicides:** A microbicide inactivates, kills or destroys microbes. Microbicides may be formulated as gels, creams, sponges, suppositories or films with the purpose of reducing significantly the incidence of STDs. There are currently no vaginal microbicides on the market. They are intended for vaginal or rectal use to afford protection for varying periods,

from several hours up to days. Microbicides may also be designed to have a contraceptive function by inhibiting sperm.

**Dendrimers:** Dendrimers are a type of nanoparticle. They are man-made chemicals that form tiny balls made up of a dense network of branches. Dendrimers have applications in the medical, electronics, chemicals and materials industries.

**American Depositary Receipts (ADRs):** Starpharma's ADRs trade under the code **SPHRY** (CUSIP number 855563102). Each Starpharma ADR is equivalent to 10 ordinary shares of Starpharma as traded on the Australian Stock Exchange. The Bank of New York is the depositary bank.

**For further information:**

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