

US patent granted for DEP Bcl2/xL inhibitor conjugates

- **The first patent for Starpharma's DEP[®] dendrimers with AstraZeneca's Bcl2/xL inhibitors has been granted in the US, with international equivalents to follow**
- **This patent provides US exclusivity until 2038, with the potential for up to 5 years' extension**
- **In multiple preclinical cancer models, AstraZeneca's DEP[®] Bcl2/xL inhibitor conjugates demonstrate the potential for better anti-cancer activity than Bcl2/xL inhibitor alone, and synergy in combination**

Melbourne, Australia; 12 June 2019: Today Starpharma (ASX: SPL, OTCQX: SPHRY) announced the [first patent](#) for DEP[®] Bcl2/xL inhibitor conjugates, developed in collaboration with AstraZeneca, has been granted by the US Patent and Trademark Office. These patented DEP[®] Bcl2/xL inhibitor conjugates combine Starpharma's innovative DEP[®] delivery technology with AstraZeneca's novel Bcl2/xL inhibitors, which are being investigated for treating various cancers, including leukemias.

This is the first patent to be granted for DEP[®] conjugates developed under the multiproduct DEP[®] licence between Starpharma and AstraZeneca. The granted patent shows promising data on DEP[®] Bcl2/xL inhibitor conjugates in various preclinical human tumour models, both alone and in combination with other leading current anti-cancer treatments. This data was previously announced to the ASX on [31 August 2018](#).

AZD0466 is a developmental DEP[®] Bcl2/xL inhibitor conjugate, with broad combination potential being evaluated in both solid and haematological tumours (blood cancers), due to its potential to target *both* Bcl2 and Bcl/xL. AZD0466 is in the final stages of preclinical development with a US FDA investigational new drug application (IND) planned in the near future.

Starpharma CEO, Dr Jackie Fairley commented: "The grant of this US patent is an important milestone for Starpharma's partnered DEP[®] programs, and further highlights the benefits that the DEP[®] platform provides in the development of novel oncology agents. The DEP[®] Bcl2/xL inhibitor conjugates are a great illustration of the commercial value that can be created using Starpharma's DEP[®] platform".

Under the AstraZeneca multiproduct DEP[®] licence, Starpharma is eligible to receive potential development, launch and sales milestones of US\$124 million for the first DEP[®] product, and US\$93.3 million for each subsequent qualifying product. Starpharma will also receive tiered royalties on net sales, and AstraZeneca funds development costs of DEP[®] AstraZeneca products, including the DEP[®] Bcl2/xL inhibitor conjugates which are the subject of this patent.

About Starpharma

Starpharma Holdings Limited (ASX: SPL, OTCQX:SPHRY), located in Melbourne Australia, is an ASX 300 company and is a world leader in the development of dendrimer products for pharmaceutical, life science and other applications.

Starpharma's underlying technology is built around dendrimers – a type of synthetic nanoscale polymer that is highly regular in size and structure and well suited to pharmaceutical and medical uses. Starpharma has two core development programs: VivaGel[®] portfolio and DEP[®] drug delivery with the Company developing several products internally and others via commercial partnerships.

VivaGel[®]: Starpharma's women's health product - VivaGel[®] BV is based on SPL7013, astodimer sodium, a proprietary dendrimer. VivaGel[®] BV is approved for marketing in the EU and available for sale in Australia for bacterial vaginosis (BV) and a new drug application has been submitted to the US FDA. Starpharma has licensed the sales and marketing of VivaGel[®] BV to ITF Pharma for the US; Mundipharma for Europe, Russia,



CIS, Asia, the Middle East, Africa and Latin America; and to Aspen Pharmacare for Australia and New Zealand. Starpharma also has licence agreements to market the VivaGel® condom (an antiviral condom which includes VivaGel® in the lubricant) in several regions, including Australia, Europe, Canada, China and Japan (Okamoto). The VivaGel® condom has been launched in Japan under Okamoto's 003 brand, and in Australia and Canada under the Lifestyles® Dual Protect™ brand.

DEP® - Dendrimer Enhanced Product®: Starpharma's DEP® drug delivery platform has demonstrated reproducible preclinical benefits across multiple internal and partnered DEP® programs, including improved efficacy, safety and survival. Starpharma has two internal DEP® products – DEP® docetaxel and DEP® cabazitaxel - in clinical development in patients with solid tumours, with DEP® irinotecan due to commence clinical trials shortly. Starpharma's partnered DEP® programs include a multiproduct DEP® licence with AstraZeneca, which involves the development and commercialisation of two novel oncology compounds, with potential to add more. In June 2019 Starpharma signed a Development and Option agreement with AstraZeneca to investigate a potential a DEP® version of one of AstraZeneca's major marketed oncology medicines.

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Media

WE Buchan Consulting

Rebecca Wilson

Mob: +61 417 382 391

rwilson@buchanwe.com.au

Arthur Chan

+61 2 9237 2805

achan@buchanwe.com.au

Starpharma

Dr Jackie Fairley, Chief Executive Officer

Nigel Baade, CFO and Company Secretary

+61 3 8532 2704

investor.relations@starpharma.com

Forward Looking Statements

This document contains certain forward-looking statements, relating to Starpharma's business, which can be identified by the use of forward-looking terminology such as "promising", "plans", "anticipated", "will", "project", "believe", "forecast", "expected", "estimated", "targeting", "aiming", "set to", "potential", "seeking to", "goal", "could provide", "intends", "is being developed", "could be", "on track", or similar expressions, or by express or implied discussions regarding potential filings or marketing approvals, or potential future sales of product candidates. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results to be materially different from any future results, performance or achievements expressed or implied by such statements. There can be no assurance that any existing or future regulatory filings will satisfy the FDA's and other authorities' requirements regarding any one or more product candidates nor can there be any assurance that such product candidates will be approved by any authorities for sale in any market or that they will reach any particular level of sales. In particular, management's expectations regarding the approval and commercialization of the product candidates could be affected by, among other things, unexpected trial results, including additional analysis of existing data, and new data; unexpected regulatory actions or delays, or government regulation generally; our ability to obtain or maintain patent or other proprietary intellectual property protection; competition in general; government, industry, and general public pricing pressures; and additional factors that involve significant risks and uncertainties about our products, product candidates, financial results and business prospects. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described herein as anticipated, believed, estimated or expected. Starpharma is providing this information as of the date of this document and does not assume any obligation to update any forward-looking statements contained in this document as a result of new information, future events or developments or otherwise.