

## AstraZeneca presents first DEP® candidate as Bcl2/xL inhibitor

- **AstraZeneca presents AZD0466 – a dual Bcl2/xL inhibitor - as the first DEP® candidate under Starpharma’s multiproduct DEP® license**
- **AstraZeneca describes DEP® candidate, AZD0466, as representing a potential best-in-class oncology drug**
- **AstraZeneca presentation at the 3rd AstraZeneca-MedImmune-CRUK Cambridge Centre Symposium 2017**

**Melbourne, Australia; 28 September 2017:** Starpharma (ASX: SPL, OTCQX: SPHRY) advises that AstraZeneca has this week presented its first DEP® candidate utilising Starpharma’s DEP® delivery platform, AZD0466, at the 3rd AstraZeneca-MedImmune-CRUK Cambridge Centre Symposium 2017 in Cambridge, UK.

AZD0466 is a highly optimised nanomedicine formulation<sup>1</sup> of a novel dual Bcl2/xL inhibitor which utilises Starpharma’s DEP® delivery technology. AstraZeneca describes AZD0466 as a best-in-class drug with a broad combination opportunity in solid and haematological tumours<sup>2</sup>.

The Bcl family of proteins are important in the regulation of cell death, known as apoptosis. Bcl2 is an anti-apoptotic protein which allows cancer cells to live indefinitely and remain resistant to many treatments. Bcl2 is a clinically validated oncology target with venetoclax (Venclexta™ - AbbVie/Genentech) being approved by the US FDA in 2016. Peak global sales of venetoclax are projected to be greater than US\$7 billion<sup>3</sup>. However despite its significant market potential, it is considered that there are gaps in the therapeutic potential of these first generation Bcl2 inhibitors<sup>4</sup>. Venetoclax may not maximise the inhibition of Bcl2 proteins, with surviving cancer cells potentially able to exploit the combined Bcl2/xL pathway as a parallel survival mechanism<sup>5</sup>.

Starpharma’s CEO, Dr Jackie Fairley, said: “We’re very excited to be able to confirm the first oncology target for our DEP® licence with AstraZeneca. AZD0466 has the potential to be a best-in-class drug with a broad combination opportunity in solid and haematological tumours, due to its broader Bcl2/xL profile. There are currently no marketed drugs which target this dual Bcl2/xL pathway and we are pleased that our DEP® platform can play a part in filling this gap.”

Dr Fairley added: “Having recently announced the successful results of our DEP® docetaxel phase 1 clinical trial and commencement of phase 2, this news further builds on the momentum of our DEP® platform. Today’s announcement further highlights the broad applicability and depth of enhancement offered by our DEP® platform. Furthermore, the reproducible benefits across multiple internal and external drug candidates provide additional validation of our DEP® platform as we move multiple candidates into the clinic. We

<sup>1</sup> [https://www.astrazeneca.com/content/dam/az/Our-Science/IMED-Biotech-Unit/IMED\\_Annual%20Review\\_2016.pdf](https://www.astrazeneca.com/content/dam/az/Our-Science/IMED-Biotech-Unit/IMED_Annual%20Review_2016.pdf)

<sup>2</sup> 3rd AstraZeneca-MedImmune-CRUK Cambridge Centre Symposium 2017 presentation

<sup>3</sup> <http://www.fiercepharma.com/marketing/abbvie-roche-look-for-blockbuster-boost-from-110k-leukemia-med>

<sup>4</sup> 3rd AstraZeneca-MedImmune-CRUK Cambridge Centre Symposium 2017 presentation

<sup>5</sup> [https://www.astrazeneca.com/content/dam/az/Our-Science/IMED-Biotech-Unit/IMED\\_Annual%20Review\\_2016.pdf](https://www.astrazeneca.com/content/dam/az/Our-Science/IMED-Biotech-Unit/IMED_Annual%20Review_2016.pdf)

look forward to AstraZeneca progressing AZD0466 into the clinic to improve the lives of cancer patients around the world.”

Under the AstraZeneca multiproduct DEP<sup>®</sup> licence, Starpharma is eligible to receive potential development, launch and sales milestones of US\$124 million for AZD0466, and US\$93.3 million for each subsequent qualifying product under the multiproduct licence. Starpharma will also receive tiered royalties on net sales on AZD0466 and any other resultant DEP<sup>®</sup> AstraZeneca products, and AstraZeneca funds development costs of AZD0466 and other DEP<sup>®</sup> AstraZeneca products.

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#### 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<sup>®</sup> portfolio and DEP<sup>®</sup> drug delivery with the Company developing a number of products internally and others via commercial partnerships.

**VivaGel<sup>®</sup>:** Starpharma's portfolio includes late stage women's health products based on VivaGel<sup>®</sup> (SPL7013, astodimer sodium), a proprietary dendrimer. VivaGel<sup>®</sup> formulated as a water based gel and delivered vaginally - VivaGel<sup>®</sup> BV - has EU regulatory approval for topical treatment and rapid relief of bacterial vaginosis (BV) and has recently completed clinical development for the prevention of recurrent BV. Starpharma has signed a license agreement with Aspen Pharmacare Australia Pty Ltd for the sales and marketing of VivaGel<sup>®</sup> BV in Australia and New Zealand. Starpharma has also signed separate license agreements with Ansell Limited (ASX:ANN), Okamoto Industries, Inc., (TSE: JP3192800005), Sky and Land (China) and Koushan Pharmed (Iran) to market a value-added, VivaGel<sup>®</sup> condom. The VivaGel<sup>®</sup> condom is available for purchase in Australia and in Canada under Ansell's Lifestyles<sup>®</sup> Dual Protect<sup>™</sup> brand. Ansell manufactures and sells leading condom brands worldwide, including LifeStyles<sup>®</sup>, Manix<sup>®</sup>, ZERO<sup>®</sup> and SKYN<sup>®</sup>. Okamoto is the market leader for condoms sold in Japan, which is the world's second largest condom market.

**DEP<sup>®</sup>:** The other major part of Starpharma's pharmaceuticals business is its proprietary DEP<sup>®</sup> drug delivery platform. Starpharma has both partnered and internal DEP<sup>®</sup> programs in Drug Delivery. A number of dendrimer-enhanced, or DEP<sup>®</sup> versions of existing drugs are under development by the Company. The most advanced of these is DEP<sup>®</sup> docetaxel, a dendrimer-enhanced version of docetaxel (Taxotere<sup>®</sup>), which is in clinical development in patients with solid tumours. In preclinical studies DEP<sup>®</sup> docetaxel has shown significant tumour-targeting and superior anti-cancer effects across a range of important cancer types including breast, prostate, lung and ovarian tumour, when compared to Taxotere<sup>®</sup> (docetaxel). In the partnered area, AstraZeneca has signed a licensing agreement with Starpharma for the use of its DEP<sup>®</sup> drug delivery platform in the development and commercialisation of a number of AstraZeneca oncology compounds.

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#### Media

##### WE Buchan Consulting

Rebecca Wilson  
Mob: +61 417 382 391  
[rwilson@buchanwe.com.au](mailto:rwilson@buchanwe.com.au)

Arthur Chan  
+61 2 9237 2805  
[achan@buchanwe.com.au](mailto: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](mailto: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.