

Shareholder Newsletter

Melbourne, Australia; 28 April 2021: Attached is the *Shareholder Update April 2021* sent to Shareholders of Starpharma Holdings Limited (ASX: SPL, OTCQX: SPHY).

About Starpharma

Starpharma Holdings Limited (ASX:SPL, OTCQX:SPHY) is a global biopharmaceutical company and a world leader in the development of new pharmaceutical and medical products based on proprietary polymers called dendrimers, with programs for COVID-19, DEP[®] drug delivery and VivaGel[®]. Starpharma has developed VIRALEZE[™], an antiviral nasal spray for COVID-19, which is complementary to vaccines and other preventative measures such as distancing and PPE. VIRALEZE[™] is registered for sale in the UK/Europe and available in the UK through LloydsPharmacy. SPL7013 is utilised in approved products - the VivaGel[®] condom and VivaGel[®] BV. VivaGel[®] BV has been licensed in >160 countries, is approved in >45 countries and available for sale in the UK, Europe, Japan, South East Asia, Australia and New Zealand.

As a leading company in dendrimer-based drug delivery, Starpharma's proprietary drug delivery platform technology, DEP[®], is being used to improve pharmaceuticals, to reduce toxicities and enhance their performance. There are numerous internal and partnered programs underway to develop DEP[®] versions of existing drugs, particularly in the area of anti-cancer therapies. DEP[®] partnerships include oncology programs with AstraZeneca, with Merck in the area of Antibody Drug Conjugates (ADCs), with Chase Sun in the area of anti-infectives and other world leading pharmaceutical companies. Starpharma's partnered DEP[®] programs have the potential to generate significant future milestones and royalties.

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Disclosure

This ASX Announcement was authorised for release by the Company Secretary.

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. Clinical case studies and other clinical information given in this document are given for illustrative purposes only and are not necessarily a guide to product performance and no representation or warranty is made by any person as to the likelihood of achievement or reasonableness of future results. Nothing contained in this document nor any information made available to you is, or shall be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of any Starpharma product.

Update

APRIL 2021



VIRALEZE™ Antiviral Nasal Spray

Starpharma launches VIRALEZE™ in UK

In March 2021, VIRALEZE™ was successfully launched by LloydsPharmacy UK, one of the largest pharmacy groups in the UK with ~1,400 pharmacy stores. VIRALEZE™ was initially launched [online](#) and in select pharmacies, including John Bell & Croyden, and was rolled out to LloydsPharmacy outlets last week. To date, Starpharma has invoiced LloydsPharmacy \$1.2 million, for the launch supply of VIRALEZE™ in the UK, with further orders to be filled between now and the end of FY21.

As part of the marketing campaign, VIRALEZE™ was featured in print media and a segment on Sky News. The launch of VIRALEZE™ coincided with the easing of lockdown restrictions in the UK and the product has been well received by consumers. In the first week of sales, LloydsPharmacy advised that VIRALEZE™ was its fastest selling product on record on LloydsPharmacy.com. Whilst it is not expected that this rate of sales will necessarily be maintained, both Starpharma and LloydsPharmacy have been very pleased with the launch of the product. LloydsPharmacy is continuing with a suite of local (UK) targeted digital marketing and promotional activities.

LloydsPharmacy is part of the global McKesson group, a leading international pharmaceutical wholesale and retail pharmacy company. McKesson UK is also one of the largest pharmaceutical wholesalers in the UK (via AAH), supplying over 14,000 independent UK pharmacies.

Europe and other regions

Starpharma is on track to launch VIRALEZE™ in further countries in Europe in the coming weeks. Commercial discussions for distribution of the product in a number of markets continue in parallel. Starpharma is also engaged in discussions with organisations, including various sporting teams which have expressed interest in the product.

Starpharma is pursuing avenues to provide rapid access to VIRALEZE™ in India, including opportunities for expedited registration and distribution in the region. The Company is also progressing regulatory activities for a number of markets, including Australia. Starpharma will make further announcements upon registration and launch of the product in other countries/regions.

Antiviral activity in multiple pandemic viruses

In addition to the activity of SPL7013 (the active in VIRALEZE™) against SARS-CoV-2, influenza, and RSV, Starpharma recently confirmed its activity in three other pandemic viruses:

- MERS, 2012 (MERS-CoV)
- SARS, 2003 (SARS-CoV)
- Swine Flu, 2009 (influenza H1N1)

SPL7013's increasingly broad-spectrum antiviral activity is a compelling feature for the role of VIRALEZE™ today and in future pandemic preparedness.

[VIRALEZE™ update continued page 4.](#)



John Bell & Croyden

EST 1798



Pictured above: VIRALEZE™ display at [John Bell & Croyden](#) pharmacy, London.



Pictured above: Manufacture and shipping of VIRALEZE™ in Belgium.

DEP® Portfolio Update



New DEP® Research Agreement signed with Merck for dendrimer-based DEP® Antibody Drug Conjugates (ADCs). [Page 2](#)



AstraZeneca global expansion of its DEP® AZD0446 clinical program. [Page 2](#)



Phase 2 clinical trials: DEP® docetaxel, DEP® cabazitaxel, and DEP® irinotecan. [Page 3](#)

DEP® HER-2-lutetium outperforms in human breast cancer model. [Page 3](#)

Partnered DEP®

New DEP® Research Agreement signed with Merck for dendrimer-based DEP® ADCs (Antibody Drug Conjugates)

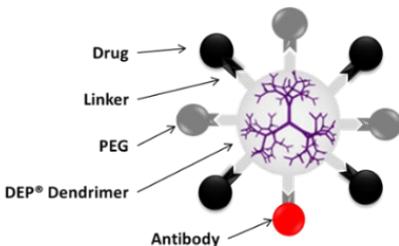
In February 2021, Starpharma announced a new Research Agreement with leading global pharma company Merck utilising Starpharma's proprietary DEP® technology to explore dendrimer-based ADCs.

Merck and Co. is ranked 4th globally of all Pharma companies by total sales revenue and is a recognised leader in oncology, making them an ideal partner for Starpharma's DEP® platform.



The use of ADCs in cancer therapy continues to grow, with 2020 global sales of Roche's Kadcyla® exceeding US\$1.8 billion.

DEP® ADCs (Targeted DEP® conjugates) are an exciting and valuable extension of Starpharma's DEP® platform and the basis of both internal candidates and a number of partnered programs in the area, including with Merck.



ADCs incorporate the specific cell targeting property of antibodies with the cell killing properties of chemically conjugated drugs, to provide a targeted therapeutic with reduced off target toxicities.

DEP® ADCs have the potential to overcome the limitation of low drug loading (DAR) that is a feature of first-generation ADCs.

DEP® ADCs exploit the unique potential of Starpharma's DEP® technology to provide enhanced characteristics to ADCs including greater homogeneity, site specific attachment, and higher drug antibody ratio (DAR), than conventional ADC approaches.

DEP® ADCs deliver efficacy improvements vs conventional ADCs and antibody therapies.

As previously announced, the significant advantages of DEP® ADCs have been shown in multiple preclinical studies.

Recently, DEP® HER2 ADC, showed significant tumour regression and 100% survival, outperforming Herceptin & Kadcyla in a human ovarian cancer model.



Click [HERE](#) for more information on DEP® ADCs.

AstraZeneca global expansion of its DEP® AZD0446 clinical program



Earlier this year, AstraZeneca advised its intention to expand its clinical program for DEP® AZD0466 to include a multi-centre global Phase 1 study with a focus in haematological tumours. This significantly expanded program will include a substantial increase in the number of trial sites globally thus speeding up recruitment. This expansion is being undertaken to facilitate expedited development of AZD0466 with the objective of obtaining regulatory approval as soon as possible for specific indications of high unmet clinical need.

"We are excited to see the global expansion of the clinical program for AZD0466 and AstraZeneca's commitment to bringing this important medicine to patients in need, as quickly as possible."

- Dr Jackie Fairley, CEO Starpharma



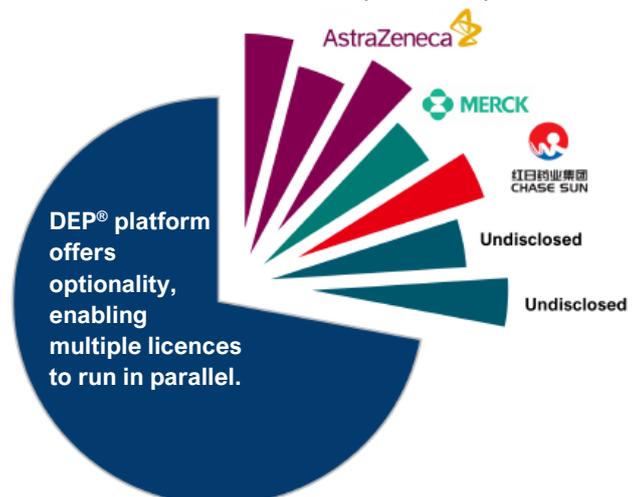
AZD0466 is a highly optimised nanomedicine formulation of AstraZeneca's novel dual Bcl-2/xL inhibitor which utilises Starpharma's DEP® technology. The development of AZD0466 is

being progressed under its multi-product DEP® licence whereby Starpharma is eligible to receive significant development, launch and sales milestones, plus royalties on net sales of the product.

AZD0466 is described as having the potential to be a 'best-in-class' agent with a broad opportunity in solid and haematological tumours (blood cancers) due to its ability to target both Bcl2 and Bcl/xL.

Starpharma's DEP® technology represents a valuable partnering platform, which has the potential to generate significant revenue through royalties and milestones.

Starpharma's DEP® platform provides exceptional optionality and leverage given that the DEP® technology can be licensed multiple times, and licences are structured to enable multiple partnered DEP® programs to run in parallel. Starpharma now has DEP® programs with multiple large pharma companies, including AstraZeneca, Merck, Chase Sun, and other undisclosed partnerships.



Clinical DEP® Programs

Starpharma continues to progress with its three phase 2 clinical trial programs for its internal DEP® assets: DEP® docetaxel, DEP® cabazitaxel, and DEP® irinotecan.

DEP® docetaxel

The phase 2 DEP® docetaxel trial continues to progress well, with more than 40 patients now recruited and encouraging efficacy signals observed, including prolonged stable disease and tumour shrinkage in patients with pancreatic, oesophageal, and gastric cancer.

These impressive tumour responses include stable disease for up to 40 weeks and significant tumour shrinkage in a heavily pre-treated oesophageal cancer patient, maintained for more than 28 weeks.

In addition to the monotherapy of DEP® docetaxel, Starpharma is also recruiting into a clinical study combining DEP® docetaxel with gemcitabine. This study follows compelling preclinical data for this combination in human pancreatic cancer models. For more information [click here](#).

DEP® cabazitaxel

The phase 2 DEP® cabazitaxel trial continues to progress well, with more than 35 patients now recruited.

Encouraging efficacy signals have been observed, including stable disease, significant target tumour shrinkage and substantial tumour marker reductions (e.g., PSA), in cancers including prostate, ovarian, lung, gastro-oesophageal, head and neck and other cancers.

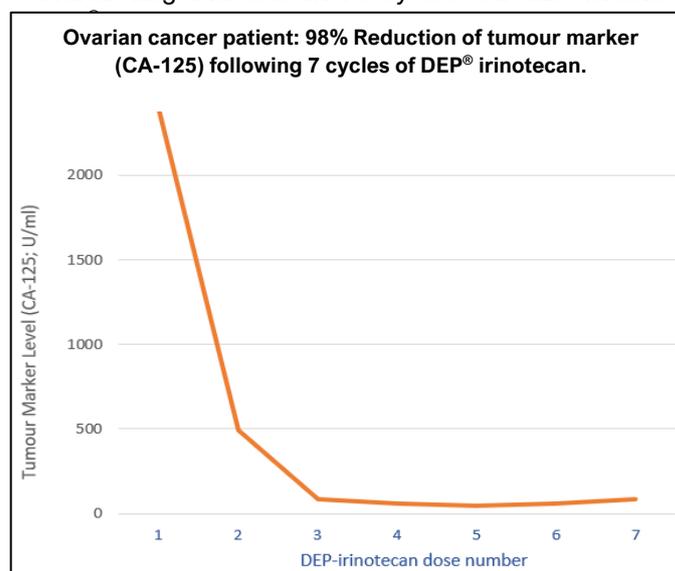
These impressive tumour responses include significant tumour shrinkage, including in prostate and ovarian cancer, in patients who have failed multiple other lines of cancer treatment.

DEP® irinotecan

The phase 2 DEP® irinotecan trial continues to progress well, with more than 40 patients now recruited. Encouraging efficacy signals observed include prolonged stable disease, impressive tumour shrinkage and reductions in tumour marker levels for a number of tumour types, including breast, colorectal, ovarian, pancreatic, lung and oesophageal cancer.

PATIENT CASE STUDY: Woman with heavily pre-treated metastatic ovarian cancer, which has a particularly poor prognosis.

- Heavily pre-treated with 6 lines of prior anti-cancer therapy, and more than 60 treatment cycles.
- Received 7 dose cycles of DEP® irinotecan to date.
- **Achieved significant reduction in CA-125 tumour marker, a 98% reduction from baseline.**
- CT scans showed a complete disappearance of her ovarian target tumour after 7 cycles of treatment with

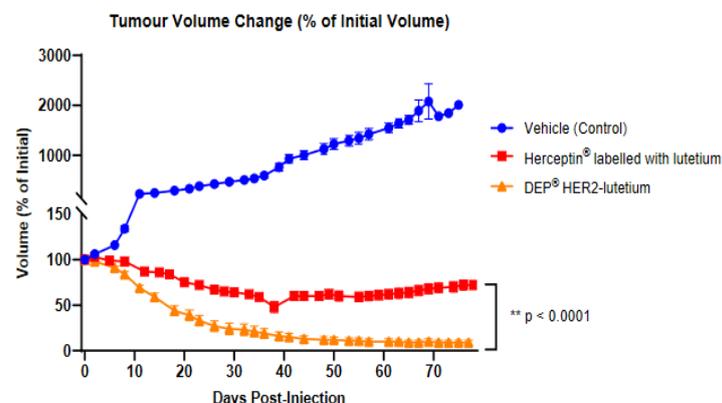


DEP® Radiopharmaceuticals

DEP® HER2-lutetium outperforms in human breast cancer model

In March 2021, [Starpharma announced](#) that its second radiopharmaceutical candidate, DEP® HER2-lutetium, achieved complete tumour regression, outperforming Herceptin® (trastuzumab) labelled with lutetium ($p < 0.0001$), in a human breast cancer model (BT474). DEP® HER2-lutetium was extremely well tolerated.

DEP® HER2-lutetium is a proprietary targeted dendrimer developed by Starpharma which incorporates the radioisotope lutetium-177 (^{177}Lu) and a novel HER2 targeting moiety (nanobody).



Radiopharmaceuticals and diagnostics are a rapidly developing area of cancer treatment, and sales in this category are estimated to grow to \$12–15 billion by 2030. The area has also seen several significant commercial acquisitions in recent years.

VivaGel® BV

Mundipharma continues VivaGel® BV rollout

Mundipharma has continued its rollout of VivaGel® BV with the launch of Betadine™ BV Gel in South Africa in March. VivaGel® BV is now available for sale in UK, Europe, South East Asia, South Africa, Australia, and New Zealand.

The Starpharma and Mundipharma regulatory teams continue to work together to expand regulatory submissions for VivaGel® BV, with the product now approved in >45 countries. Further regulatory submissions are underway to support additional launches of VivaGel® BV in Mundipharma's territories.

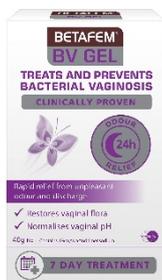
VivaGel® BV continues to attract very positive consumer reviews, with patients highlighting a range of benefits.



Customer reviews

★★★★★ 272 global ratings

**"Life changing.
Every woman needs this."**



Aspen wins marketing award for Fleurstat BVgel

Aspen's [Fleurstat](#) "Could it be BV?" campaign was awarded the [2020 Diamond Award](#) for "Best Launch of a Consumer Healthcare Product". These awards are based on survey responses from over 1,400 pharmacists and pharmacy assistants.



FLEURSTAT BVGEL (VivaGel® BV) for the treatment of BV and relief of symptoms: Ask your pharmacist – they must decide if this product is right for you. Always read the label. Follow the directions for use. Do not use for more than 7 days unless a doctor has told you to. See your doctor if symptoms persist after 7 days or recur within 2 weeks, and if you consider you may be at risk of an STI. See a doctor if you are diabetic or pregnant/breastfeeding (or plan to be).

VIRALEZE™ Antiviral Nasal Spray

Starpharma launches VIRALEZE™ in the UK

(continued from page 1)

Starpharma launched VIRALEZE™ in March via LloydsPharmacy, a leading pharmacy chain in the UK.

Pictured above: Examples of LloydsPharmacy's digital marketing materials.

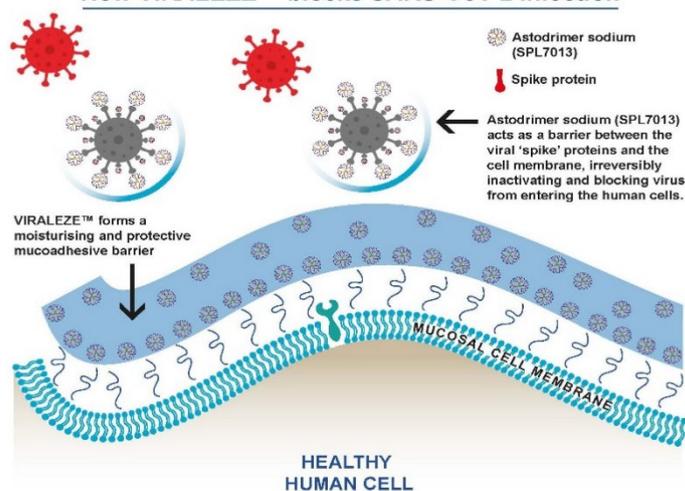


Visit www.viraleze.co and follow social media:

[@viralezenasalspray](#) [facebook.com/viralezenasalspray](https://www.facebook.com/viralezenasalspray)

How does VIRALEZE™ work?

How VIRALEZE™ blocks SARS-CoV-2 infection



SPL7013 in VIRALEZE™ Antiviral Nasal Spray has been shown to inactivate viruses, including >99.9% of SARS-CoV-2, within one minute in laboratory studies.

VIRALEZE™ targets the area in the nasal cavity where respiratory viruses that cause colds, flu and more severe respiratory illnesses, such as COVID-19, first attach and start to multiply. The nasal cavity is the primary site where SARS-CoV-2 (COVID-19) becomes established, before spreading to the lungs.[†] VIRALEZE™ contains astodimer sodium (SPL7013), which is antiviral and has been shown in laboratory studies to inactivate viruses[†], adding a further physical barrier to respiratory viruses. Click [here](#) to play video of how VIRALEZE™ works.

[†]Hou, Y.J., et al. 2020. SARS-CoV-2 reverse genetics reveals a variable infection gradient in the respiratory tract. Cell 182(2), 429-446.e14. <https://doi.org/10.1016/j.cell.2020.05.042>

[†] Paull, J.R.A., et al. 2020. Virucidal and antiviral activity of astodimer sodium against SARS-CoV-2 in vitro. bioRxiv 2020.08.20.260190 <https://doi.org/10.1101/2020.08.20.260190>

VIRALEZE™ clinical study

Starpharma commenced its double-blinded, placebo-controlled safety study to support marketing of VIRALEZE™ in January 2021. The study involved 40 healthy volunteers, using the product 4 times a day for 14 consecutive days. All participants have now completed the study. Whilst the data is not yet unblinded, both VIRALEZE™ and the placebo nasal spray were extremely well tolerated by all participants.

Financials, Media & Outlook

Cash balance & HY21 Key Financial Info

As reported on 27 April 2021, Starpharma's cash balance at 31 March 2021 was \$64.3 million.

HY21 Key Financial Information

- \$47.0 million net proceeds from equity placement and share purchase plan
- Net operating cash outflows of \$5.4 million
- Receipt of \$5.7 million R&D tax incentive
- Reported loss for half-year of \$10.4 million

Media

>> Starpharma CEO interviewed by Ticky Fullerton for The Australian



The Australian's Business Review interviewed Starpharma CEO Dr Jackie Fairley about the UK launch of VIRALEZE™. [\(LINK\)](#)

>> Sky News reports on launch of VIRALEZE™



Sky News interviewed Starpharma CEO Dr Jackie Fairley about the UK launch of VIRALEZE™ at LloydsPharmacy. [\(LINK\)](#)

>> ausbiz interviews Starpharma CEO



[ausbiz](#) interviewed Starpharma CEO Dr Jackie Fairley about the UK launch of VIRALEZE™. Stephen Wood (Eiger Capital) was interviewed for commentary on Starpharma. Watch the full interview [here](#).

>> The Age reports on Starpharma's agreement with LloydsPharmacy



The Age reported on Starpharma's partnership with LloydsPharmacy to launch its "COVID-fighting antiviral nasal spray" VIRALEZE™ in the UK. [\(LINK\)](#)

>> Channel 7 News reports Starpharma's VIRALEZE™ has been registered in the UK/Europe



Channel 7 interviewed Starpharma CEO Dr Jackie Fairley upon registration of VIRALEZE™ in UK/Europe.

Outlook

VIRALEZE™ / VIVAGEL® / SPL7013

- Further roll-out of VIRALEZE™ Antiviral Nasal Spray
- Further VIRALEZE™ registrations and launches; commercial arrangements
- Continued testing of SPL7013 against SARS-CoV-2 variants and other viruses
- Commercial roll-out of VivaGel® BV in Europe, Asia & other markets
- Further regulatory approvals and launches for VivaGel® BV; building revenues - milestones and sales/royalties.
- Ongoing formal FDA review process
- Further VivaGel® BV licences
- VivaGel® condom approvals/launch in additional regions
- Further development/co-development of SPL7013, e.g., antiviral ophthalmic drops

DEP®

- Progress and completion of DEP® docetaxel, DEP® cabazitaxel & DEP® irinotecan phase 2 trials; progress value-adding combination studies
- AZD0466 clinical progress, expansion of trial sites recruitment and receipts from milestones
- AstraZeneca: Exercise of Option Agreement and/or deals for further compounds
- Progress with existing partnered DEP® programs, including with Merck & Chase Sun
- Execute/expand new DEP® partnerships/agreements
- Advance DEP® radiopharmaceuticals, DEP® ADCs and DEP® antivirals
- Advance value-adding DEP® combinations in clinic and other DEP® products



Disclosure: This ASX Announcement was authorised for release by the Company Secretary.

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SHAREHOLDER
Update