## **BELL POTTER**

#### 15 June 2017

Analyst Tanushree Jain 612 8224 2849

Authorisation TS Lim 612 8224 2810

#### Recommendation

BUY (unchanged) **Price** \$0.735 Valuation \$1.17 (previously \$1.10) Risk Speculative

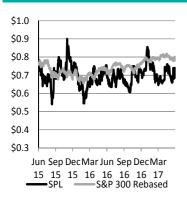
#### **GICS Sector**

Pharmaceuticals & Biotechnology

Expected Return	
Capital growth	59.2%
Dividend yield	0.0%
Total expected return	59.2%
Company Data & Ratios	;
Enterprise value	\$210.6m
Market cap	\$271.3m
Issued capital	369.09m
Free float	100%
Avg. daily val. (52wk)	\$310,714
12 month price range	\$0.59 - \$0.88

Price Perfo	ormance		
	(1m)	(3m)	(12m)
Price (A\$)	0.73	0.71	0.74
Absolute (%)	1.37	4.96	0.68
Rel market (%)	2.16	3.42	-7.79

#### **Absolute Price**



SOURCE: IRESS BELL POTTER SECURITIES LIMITED ABN 25 006 390 772 AFSL 243480

## Starpharma (SPL)

Speculative See Key risks on Page 9 & Biotechnology Risk Warning on Page 11 Speculative securities may not be suitable for Retail clients

Sharpens focus and divests non-core agrochemicals business for A\$35m cash

#### Transaction strengthens balance sheet and sharpens focus

Starpharma has sold its non-core agrochemicals business to leading North American agrochemicals company Agrium in an all cash transaction for A\$35m (4x book value of \$7.5m). Agrium has acquired all intellectual property related to the Priostar dendrimer technology (used only in agrochemicals business), SPL's existing agrochemicals portfolio and a small number of agrochemicals dedicated staff via two wholly owned subsidiaries of SPL. With the proceeds from the sale, SPL's cash position has been significantly strengthened (BPe A\$60.7m as at 30<sup>th</sup> June'17), which should provide 3 years runway, assist the company in ongoing partnering negotiations for VivaGel Bacterial Vaginosis (BV) and allow it to accelerate development of its internal DEP drug delivery candidates. We view this sale as a positive and a key first step in unlocking value for SPL shareholders. In our view, it makes for a much cleaner story at SPL and allows the company to sharpen both its commercial and R&D focus on its core high value add pharmaceuticals business (drug delivery and VivaGel portfolio).

#### Pharmaceutical pipeline approaching key inflexion points

Results from VivaGel R-BV Phase 3 trials are expected over the next 2-4 weeks. We expect a marketing application for BV treatment to be submitted to the FDA in 1QFY18. SPL has engaged a US bank to assist it with a competitive process ongoing on partnering BV. We expect a licensing deal for BV in 1QFY18 will lead to further cash injection and allow SPL to focus on the drug delivery business. Results from Phase 1 DEP docetaxel trial are expected in mid CY17, with a Phase 2 to start later this year. DEP cabazitaxel is expected to move to Phase 1 trials in 2HCY17.

#### Valuation lifted to \$1.17, Retain Buy (speculative)

Following revisions, the net result is an increase in our adjusted net loss forecasts for FY17, offset by an increase in NPAT for FY18, driven by revised deal timing for BV (1QFY18 vs. 4QFY17). The decrease in our FY19 NPAT forecast was driven by revised timeline on a Phase 2 milestone from AZN. The short term NPAT adjustments combined with SPL's strengthened cash position and rolling forward our DCF model has lifted our valuation for SPL to A\$1.17/sh (was A\$1.10/sh). We retain Buy (spec).

Earnings Forecast					
Year end 30th June	2015A	2016A	2017E	2018E	2019E
Revenue (A\$m)	4.3	7.3	6.6	21.8	31.2
EBITDA (A\$m)	-18.6	-22.5	-17.6	6.5	15.7
NPAT (reported) (A\$m)	-19.0	-22.7	9.6	5.0	11.6
NPAT (adjusted) (A\$m)	-19.0	-22.7	-17.9	5.0	11.6
EPS (reported) (cps)	-6.11	-6.57	2.61	1.35	3.11
EPS (adjusted) (cps)	-6.11	-6.57	-4.86	1.35	3.11
EPS (adjusted) growth (%)	N/A	N/A	N/A	NM	130.5%
PER (x)	N/A	N/A	N/A	54.4	23.6
EV/EBITDA (x)	-11.3	-9.3	-11.9	32.6	13.4
Dividend (¢ps)	0.0	0.0	0.0	0.0	0.0
Yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%
Franking (%)	N/A	N/A	N/A	N/A	N/A
ROE (%)	-50.5%	-45.9%	-30.0%	7.6%	14.6%

NOTE: REVENUE INCLUDES R&D TAX INCENTIVES AND UPFRONTS & MILESTONES FROM DEALS. FY18/FY19 REVENUE ALSO INCLUDE POTENTIAL UPFRONT AND MILESTONES FROM VIVAGEL SYMPTOMATIC RELIEF, TREATMENT, PREVENTION OF R-BV AND DEP DOCETAXEL PEALS MILESTONES FROM AZN AND ROYALTIES SOURCE BELL POTTER SECURITIES ESTIMATES DISCLAIMER: THIS REPORT MUST BE READ WITH THE DISCLAIMER ON PAGE 11 THAT FORMS PART OF IT INCLUDING THE FOLLOWING DISCLOSURE

DISCLOSURE: BELL POTTER SECURITIES ACTED AS JOINT LEAD MANAGER IN THE DECEMBER 2015 PLACEMENT AND RECEIVED FEES FOR THAT SERVICE.

# Sale of agrochemicals business – a positive strategic move

**Event:** Starpharma has sold its non-core agrochemicals business to leading North American agrochemicals company Agrium in an all cash transaction for A\$35m (4x book value of \$7.5m). The transaction significantly strengthens SPL's cash position (company estimates >\$60m). SPL intends to use its strengthened balance sheet to accelerate development of its internal DEP drug delivery platform.

We view this sale as a positive and a key first step in unlocking value for SPL shareholders. In our view, it makes for a much cleaner story at SPL and allows the company to sharpen both its commercial and R&D focus on its core high value add pharmaceuticals business (drug delivery and VivaGel portfolio).

We give a summary of the transaction and SPL's portfolio post transaction below:

#### **Transaction Highlights**

- Agrium Inc (NYSE:AGU, market cap ~US\$13b), a leading North American agrochemicals company has acquired SPL's agrochemicals business (SPL's US subsidiary Dendritic Nanotechnologies and Priostar PTY Ltd.) for A\$35m in an all cash transaction.
- The sales amount represents 4x book value of A\$7.5m (value of intangible assets on SPL's balance sheet prior to sale).
- With the completion of the transaction, Agrium has acquired all know-how and intellectual property (~16 granted patents) related to the Priostar dendrimer technology (used only in agrochemicals business), SPL's existing agrochemicals portfolio and a small number of agrochemicals dedicated staff.
- The small number of Priostar dedicated staff (Est 4) will move to Agrium's subsidiary in Australia called Landmark.
- All of SPL's existing partnerships and associated obligations in agrochemicals will be transitioned to Agrium (including disclosed Adama partnership and various other undisclosed). Agrium can decide to continue with those relationships or not.
- The sale was concluded following a competitive process undertaken by SPL with Macquarie Capital assisting as advisers. We understand the process took ~6 months to come to fruition.
- SPL has already received the A\$35m cash and there are no further commercial relations between the two companies following this sale.
- SPL has guided that there will be no income tax payable on this transaction and estimates to have cash balance of >60m as at 30<sup>th</sup> June 2017 (BPe A\$60.7m).
- SPL expects to reduce its R&D expenditure (primarily related to Priostar dedicated employees moving to Landmark) by ~A\$500,000 –A\$750,000 a year following the business divestiture.

#### Clean transaction -no impact on pharmaceuticals business

The sale of the agrochemicals business was a clean transaction. All key agrochemicals (Priostar Patents) were held by SPL's US subsidiary Dendritic Nanotechnologies. All the Australian agrochemicals related IP and assets were recently transferred by SPL in to a

new company called Priostar PTY Ltd. Agrium purchased both Dendritic Nanotechnologies and Priostar PTY Ltd. for A\$35m cash.

All of SPL's Pharmaceuticals patents (VivaGel and DEP drug delivery) are held in a separate company Starpharma PTY Ltd which remains part of the parent company Starpharma Holdings Limited.

We also note that the technology used in agrochemicals (Priostar) is vastly different from the dendrimer technology used by SPL both for VivaGel and DEP drug delivery. Therefore we also do not see any overlap in technical know-how between the businesses to become an issue. We explain the key differences between the Priostar and the pharmaceutical dendrimers below.

#### DIFFERENCE BETWEEN SPL'S PRIOSTAR AND PHARMACEUTICAL DENDRIMERS

- Dendrimers used in drug delivery and VivaGel: For SPL's pharmaceutical dendrimers including VivaGel the core of the dendrimer is made of lysine (an amino acid), which is biofriendly and low cost. In pharmaceuticals and in VivaGel linkers are used to attach various substances or active groups to the dendrimer scaffolds surface (various points of attachment).
- Priostar dendrimers: Unlike the pharmaceutical dendrimers, for priostar dendrimers the core is not made of lysine and varies chemically between different agrochemical formulations depending on what function the dendrimers are trying to achieve. Unlike the pharmaceutical dendrimers, Priostar dendrimers do not use any linkers. Instead Priostar dendrimers are added as an additive to an existing agrochemical formulation with the view to improve the characteristics of the formulation such as improve its solubility, stability etc.

#### Divestiture makes for a much cleaner story at SPL

CEO Jackie Fairley on the call stated that a SPL agrochemicals product would have to achieve sales of ~\$1bn, for SPL to earn royalties of ~\$35m, which could appreciably take several years from launch to achieve. By early monetisation of the agrochemicals business, SPL has brought forward that royalty income and most importantly can focus on the higher value and higher growth opportunity available with its pharmaceuticals business.

With its Priostar dendrimers SPL was targeting the off patent segment of the agrochemicals sector. Licensing deals in this space would have been pure royalty based deals with no upfronts or milestones attached. The royalty rate as well (compared to pharmaceuticals business) would have been modest low single digit (tiered between 2%-5%). Hence, the CEO's comment on \$1bn sales translating to ~\$35m in royalties, represents a 3.5% royalty rate, which is in line with what would have been expected.

On our part we are happy with the monetisation value achieved by SPL given we only had a marginal value for agrochemicals in our model (we had just included risk adjusted royalty revenues for the US market from partner Adama for 2,4-D). This represented a risk adjusted NPV of A\$3m. As a reminder we had removed Priostar glyphosate from our model last August. Even when we had glyphosate which was undoubtedly the largest of the agrochemical opportunities, its risk adjusted NPV was A\$18m, which is still below the value achieved by SPL. Hence assuming the deal valued glyphosate and 2,4-D formulations and a few other undisclosed partnerships/formulations SPL was working on in agrochemicals, we suspect the sale value of A\$35m is likely to represent a fair value.

In our view, sale of the agrochemicals business is a good strategic move on the part of Starpharma. The sale not only strengthens the company's cash position providing it with a 3 year cash runway, but most importantly it allows for SPL to sharpen both its

## commercial and R&D focus on pharmaceuticals, mainly DEP drug delivery which is likely to provide more meaningful growth.

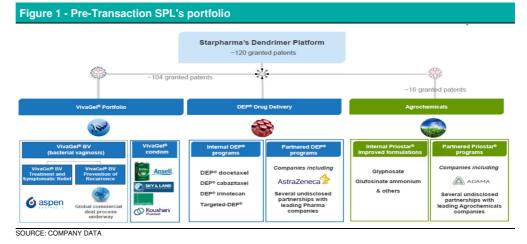
SPL intends to use its strengthened balance sheet to accelerate development of its internal DEP drug delivery platform. The strengthened cash position is also timely and will assist in SPL's ongoing negotiations for partnering VivaGel Bacterial Vaginosis (BV) product.

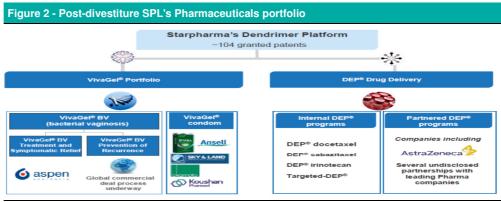
**For VivaGel Bacterial Vaginosis (BV),** SPL has engaged a US bank to assist it with a competitive process ongoing on partnering BV. The company is in advanced negotiations for a deal which could be global or broken up into a few regional deals. We expect a licensing deal for BV in 1QFY18 will lead to further cash injection and allow SPL to focus solely on the drug delivery business.

**For DEP drug delivery,** we expect SPL to advance not only its lead DEP docetaxel candidate into Phase 2 trials but also accelerate preclinical development of other candidates and advance them into the clinic starting with DEP cabazitaxel and DEP irinotecan on which promising preclinical data was recently announced. This was also confirmed with the comments from the CEO on the investor call.

**SPL stated that it has recently scaled up its internal manufacturing facility** which will allow it to accelerate the development of both its internal DEP programs but also assist partnered programs such as with AstraZeneca to move forward at a potentially faster pace.

In summary, we are pleased with the divestiture, as we expect SPL can now concentrate on its core high value add business of drug delivery with a strengthened cash position allowing it to run multiple clinical trials in parallel as well as advance pre-clinical development of a reasonable number of candidates in parallel. Advancement of additional DEP drug delivery candidates into the clinic will add significant value to SPL and will be an upside to our valuation.





SOURCE: COMPANY DATA

## **Earnings and Valuation Changes**

We have revisited our assumptions for Starpharma and made adjustments to our forecasts following the divestiture of its agrochemicals business, which have impacted earnings and valuation.

#### Key changes to our modelling assumptions

- We have adjusted our model to include the proceeds from the sale of the agrochemicals business (A\$35m gross proceeds less assumed transaction cost). SPL has stated that book value for the business was A\$7.5m. As such we assume that the intangible assets balance on SPL's balance sheet relates primarily to the agrochemicals business (SPL's US subsidiary Dendritic Nanotechnologies Inc. which held all the IP related to Priostar). We also expect SPL's asset revaluation reserve (related to Dendritic Nanotechnologies) and the foreign currency translation reserve to be released following this transaction.
- We have also included a gain from sale of agrochemicals business (gross proceeds less book value) in our P&L which have positively impacted our FY17 reported NPAT forecasts, positioning SPL to potentially report its first maiden profit.
- Following the removal of intangible assets from our forward forecasts, we no longer have amortisation costs in our forecasts. Therefore our depreciation & amortisation expense forecasts have reduced.
- Following the sale of the agrochemicals business we have removed Priostar 2,4-D from our model. As a reminder we had just included risk adjusted royalty revenues for the US market from partner Adama for this product.
- We now assume a deal for VivaGel for Bacterial Vaginosis happens in 1QFY18 (was 4QFY17). SPL is in advanced discussions and have engaged a US investment bank to help them with this process. We expect that results from the prevention of recurrence Phase 3 trials to be released in the next 2-4 weeks. It is increasingly likely that SPL may look at doing a global deal across all indications for BV. Hence, we now expect that a deal is likely to be finalised after the results from the R-BV trials are released. Therefore we have shifted our assumed upfront payments related to the deal from FY17 to FY18.
- We now expect AstraZeneca to start a Phase 1 trial with lead DEP candidate under partnership by end of CY17, given the companies plan to talk about the drug in a conference later this year. Earlier we were hoping for a start a bit earlier in 2HCY17. Accordingly we now expect a start of Phase 2 trial in 1HFY20 (was 2HFY19) and therefore have shifted the related milestone for Phase 2 to FY20.
- We have adjusted our model for the issue of shares on performance rights vesting for the small number of agrochemicals dedicated SPL employees who will now be moving to Landmark (Australian subsidiary of Agrium), following the sale.
- We have also marginally reduced our forward revenue forecasts to account for a reduction in research revenue related to the agrochemicals business (BPe ~\$0.1m/year).
- Our interest income forecasts have increased due to higher cash balance.
- SPL expects to reduce its R&D expenditure (primarily related to priostar dedicated employees moving to Landmark) by ~A\$500,000 –A\$750,000 a year following the business divestiture. We assume the savings will be re-invested in the drug delivery side of the business, hence make no changes to our forward R&D forecasts.
- We have rolled forward our DCF model.

#### We value SPL at \$1.17/sh

The net result is an increase in our adjusted net loss forecasts for FY17, offset by an increase in NPAT for FY18, driven by revised deal timing for BV. The decrease in our FY19 NPAT forecast was driven by revised timeline on the Phase 2 milestone from AZN. The short term NPAT adjustments combined with SPL's strong cash position following the sale of the agrochemicals business and rolling forward of our DCF model has lifted our valuation for SPL to A\$1.17/sh (was A\$1.10/sh). We retain our Buy (Speculative) recommendation.

		FY2017E			FY2018E			FY2019E	
	Old	New	Change (%)	Old	New	Change (%)	Old	New	Change (%)
Revenues	9.2	6.6	-28%	19.3	21.8	13%	42.1	31.2	-25.7%
Interest Income	0.7	0.7	4%	0.6	1.0	69%	0.9	1.2	38.1%
R&D	19.6	19.6	0%	10.5	10.5	0%	10.5	10.5	0.0%
G&A	4.6	4.6	0%	4.8	4.8	0%	5.0	5.0	0.0%
EBITDA	-15.0	-17.6	17%	4.0	6.5	60%	26.6	15.7	-40.8%
EBIT	-16.0	-18.6	17%	3.1	6.1	100%	25.6	15.4	-39.9%
NPAT (adjusted)	-15.3	-17.9	17%	2.6	5.0	95%	18.5	11.6	-37.3%
Adjusted Diluted EPS	-4.1	-4.9	17%	0.7	1.4	95%	5.0	3.1	-37.3%

ALL AMOUNTS IN AUD IN MILLIONS EXCEPT EPS. SOURCE: BELL POTTER SECURITIES ESTIMATES

Our DCF valuation model is based on a WACC of 16.0% and a terminal growth rate of 1%.

Table 2 - Summary of Valuation	
Forecasts	Base case
Enterprise Value from DCF (AUDm)	382.2
Add: Reported Cash (AUDm)	60.7
Less: Debt (AUDm)	0.0
Equity Value (AUDm)	443.0
Total diluted shares (million)	378.6
Value per share (AUD)	\$1.17
Current Share price (AUD)	\$0.74
Expected Capital Growth	59.2%

#### Table 3 - SPL- Probability-Weighted Sum-of-parts Valuation Summary

Asset	Stage	First Fiscal Year of sales (Est.)	Peak Market share	Peak Sales Global (US\$m)	Probability of success	Probability adjusted NPV (A\$m)	Value per share (A\$)	% Mix
VivaGel BV Treatment (US)	Preparing NDA to file for approval	2018 (US)	20.0%	\$142	70.0%	\$64	\$0.17	14.5%
VivaGel BV Symptomatic Relief	First regulatory approval in Europe received	2018 (Ex-US)	15.0%	\$21	80.0%	\$19	\$0.05	4.2%
VivaGel BV Prevention of Recurrence	Phase III	2019	25.0%	\$647	44.0%	\$172	\$0.46	38.9%
VivaGel Coated Condom - Okamoto	Regulatory certification received	2018 (Japan)	10.0%	\$21	80.0%	\$5	\$0.01	1.1%
VivaGel Coated Condom - Ansell	Regulatory approval received for AU, NZ,	2015 (AU), 2017 (Canada),	10.0%	\$375	80.0%	\$88	\$0.23	19.9%
	Canada	2018 (US)						
DEP Docetaxel (first solid tumour)	Phase I	2022	15.0%	\$539	15.0%	\$54	\$0.14	12.2%
AZN DEP Cancer Drug (lead)	Pre-clinical	2024	NA	NA	NA	\$27	\$0.07	6.2%
Diagnostics/Laboratory Reagents	On-market	NA	NA	NA	NA	\$2	\$0.01	0.5%
Other Pipeline/Non-allocated	NA	NA	NA	NA	NA	-\$49	-\$0.13	-11.1%
Cash (est. at 30th June 2017)	NA	NA	NA	NA	NA	\$61	\$0.16	13.7%
Debt (last reported)	NA	NA	NA	NA	NA	-\$0.0	\$0.00	0.0%
Equity Value						\$443.0	\$1.17	100.0%

GLOBAL PEAK SALES ARE PRE-RISK ADJUSTMENT AND ROYALTIES. BV = BACTERIAL VAGINOSIS. PEAK SALES FOR COATED CONDOM FOR OKAMOTO AND ANSELL ARE BASED ON REGIONS UNDER AGREEMENT WITH THEM. PEAK SALES FOR VIVAGEL SYMPTOMATIC RELIEF IS FOR EX US MARKETS ONLY. PEAK SALES FOR VIVAGEL BY TREATMENT IS FOR US MARKET ONLY. AZN DEP CANCER DRUG ONLY INCLUDES UPFRONT, DEVELOPMENT AND LAUNCH MILESTONES FROM LEAD DRUG UNDER AGREEMENT. SOURCE: BELL POTTES ESTIMATES

#### Table 4 - Deal Assumptions for SPL

Asset	Indication	Stage at Licensing	Licensee	Fiscal Year Timing of deal (Est.)	Total Deal Value in USDm (upfront plus milestones)	Upfront (USDm)	Developmental & regulatory Milestones (USDm)	Commercial Milestones (USDm)	Royalty Rate (% )
VivaGel	BV Symptomatic Relief (EX-US & ANZ)	Registration (pre-launch)	TBC	2018	25	1.5	NA	23.5	20.0%
VivaGel	BV Treatment (US)	Registration (pre-launch)	твс	2018	57	1	9	47	25.0%
VivaGel	BV Prevention of Recurrence	Phase III complete	TBC	2018	200	5	35	160	25.0%
VivaGel	Coated Condom (Japan)	Pre Regulatory Approval	Okamoto	2011	0	NA	NA	NA	12.0%
VivaGel	Coated Condom (Ex-Japan)	Pre Regulatory Approval	Ansell	2012	0	NA	NA	NA	12.0%
DEP Docetaxel	First Solid tumour	Phase II complete	TBC	2019	300	15	125	160	15.0%
AZN DEP Cancer Drug (lead)	Unknown (BPe speculation blood cancers)	Pre-clinical	AstraZeneca	2016	126	2	64	60	NA

AGE. IT COULD POTENTIALLY HAVE ADDITIONAL VALUE FOR EACH ADDITIONAL INDICATION THAT THE AGE FOR DOCETAXEL DEAL OR FOR BV PREVENTION OF RECURRENCE. ROYALTIES ARE LIKELY TO BE TIERED VIG ONLY INCLUDES UPFRONT, DEVELOPMENT AND LAUNCH MILESTONES FROM LEAD DRUG UNDER NOTE: OUR DEP DOCETAXEL DEAL ASSUMPTIONS ARE CONSERVATIVE REFLECTING ITS EARL LICENSEE PURSUES. WE DO NOT INCLUDE COMMERCIAL MILESTONES IN OUR MODEL AT THI FOR EACH DEAL WE ASSUME FLAT RATE AT MID POINT OF RANGE FOR NOW. AZN DEP CANCI AGREEMENT. SOURCE: BELL POTTER SECURITIES ESTIMATES

#### Upside Risk to our valuation

We have not modelled SPL's potential revenue flow from its partnerships with Eli Lilly (drug delivery), Elanco (drug delivery), GSK (drug delivery) and from its undisclosed partnerships in drug delivery (partnership with 2 undisclosed companies on antibody-targeted conjugates). These partnerships becoming substantial in future and converting to a commercial licensing deal with financial terms would lead to an upside to our estimates.

At this stage we do not model royalties and sales milestones attached to the lead cancer drug under the AstraZeneca (AZN) partnership. Sales milestones are estimated to be US\$60m and SPL estimates that royalties over the life of the lead drug could amount to ~US\$324m. We also do not include any value for the follow on compounds under the AZN agreement including the second molecule selected by AZN which are each worth up to US\$93.3m in milestones. Clarity on the molecular target and targeted indication on lead drug will allow us to model royalties and sales milestones. Other follow on compounds moving into the clinic would be a potential upside to our estimates.

At this stage we assign no value to the new collaboration agreement signed with AstraZeneca in July 2016 on a new DEP program in AZN's existing portfolio (i.e. a marketed compound by AZN). This compound is not under the scope of the licensing agreement inked between the two companies in Sep'15 which covered a defined family of oncology targets. Should this agreement translate to a commercial licensing deal in future, it will be an upside to our estimates.

At this stage, we do not assign any value to SPL's commercial opportunity for the VivaGel Coated Condom in China. SPL has signed a license and supply agreement with Shenyang Sky and Land Latex Co. for its VivaGel coated condom (VCC), for the government segment of the Chinese condom market (estimated market 3bn condoms/year). Activities related to obtaining regulatory approval in China have commenced and we understand are progressing at a rapid rate. Approval in China would be a potential upside to our estimates.

At this stage, we do not value SPL's other internal candidates from drug-delivery including DEP cabazitaxel or DEP irinotecan, or its Herceptin-targeted DEP conjugate given the early nature of these programmes. These programmes moving ahead into the clinic would be a potential upside to our estimates. We expect DEP cabazitaxel to move into Phase 1 trials in 1HFY18 and therefore expect to include it in our model in the coming months, which would represent an upside to our estimates.

Also, we note that docetaxel (Taxotere) made by Sanofi Aventis is currently approved for multiple indications including breast cancer, head and neck cancer, gastric cancer, prostate cancer and non-small cell lung cancer (NSCLC). SPL has previously reported results from animal studies of DEP docetaxel, which demonstrated that DEP docetaxel has superior efficacy to docetaxel alone across a wide range of tumours namely prostate, lung, ovarian and breast. At this stage for SPL, we model DEP docetaxel's opportunity for the first solid tumour indication the company may pursue. However, depending on the results from the Phase I trial, SPL may decide to pursue more than one indication in parallel. This could considerably increase the market opportunity for this asset. **Expanded indications for DEP docetaxel could lead to upgrades in our numbers.** We will revisit our assumptions on the basis of the Phase I DEP docetaxel trial results.

#### **Forthcoming Milestones**

In terms of news flow over the reminder of CY17, we expect the following announcements to act as catalysts for a potential re-rating of the stock:

 End June'17/early July'17 - Results from the two Phase III trials of VivaGel for Prevention of Recurrence of Bacterial Vaginosis;

- 1QFY18 Licensing deal for VivaGel Treatment for BV for US market and the OTC product for BV for Ex-US markets and prevention of recurrence of BV (all markets) with upfronts and milestones;
- Early 1QFY18 NDA filing for VivaGel for Treament of Bacterial Vaginosis (BV) to US FDA for approval in US market;
- Early 1QFY18 Top-line results from Phase I DEP docetaxel trial (dose escalation and expansion phase);
- 1QFY18- Launch of VivaGel OTC (Over the counter) product for symptomatic relief of BV by Aspen in ANZ;
- 2QFY18 Potential initiation of Phase I trial with first DEP AstraZeneca drug under partnership triggering a US\$3m milestone payment to SPL;
- 2QFY18 Potential initiation of Phase II clinical trial for DEP docetaxel;
- 1HFY18 Potential initiation of Phase I trial with DEP Cabazitaxel;
- 1HFY18 Launch of VivaGel coated condom in Japan by Okamoto;

## In addition, we expect that over the next 12 months SPL's collaboration with AstraZeneca on the new DEP program announced in July 2016, could advance to a commercial licensing deal.

Also, we note that activities related to obtaining regulatory approval in China for SPL's VivaGel coated condom for the government segment of the Chinese condom market have commenced and are progressing well. The process could take several months and at this stage it is difficult to estimate a timeline for approval and launch. Assuming the entire process takes between 10-18 months, there is a possibility for the approval to be received sometime in 2HCY17.

#### Starpharma Holdings Ltd. (SPL)

#### **COMPANY DESCRIPTION**

Starpharma is a Melbourne-based platform company commercialising the science of nanoscale polymers called dendrimers. Its proprietary dendrimer technology is versatile with wide applicability across the pharmaceuticals sector. SPL's lead product is VivaGel which is being developed as an anti-microbial coating for Ansell and Okamoto condoms offering protection against Sexually Transmitted Infections, as well as a topical microbicide for treating and preventing the recurrence of the common vaginal infection in women, Bacterial Vaginosis (BV). SPL is also working on improved formulations of leading cancer drugs both internally and with external partners including AstraZeneca. Substantial shareholders Allan Gray, M&G and Fidelity, in combination hold ~31.2% stock.

#### **INVESTMENT STRATEGY**

SPL remains an attractive story with multiple shots on goal. We expect multiple catalysts to play out over the next 12 months which could further de-risk the platform technology and demonstrate its commercial viability. We believe that CY17 will be a watershed year for SPL, with the release of Top-line data from the Phase I DEP docetaxel trial. Positive data from this trial will serve as a proof of concept for SPL's dendrimers to be effective drug delivery agents and substantially de-risk the company. SPL's strong cash position of ~A\$60.7m and sharpened focus on pharmaceuticals following sale of its agrochemical business underpins its future growth and we expect the company add value in the medium term through commercial revenue from the condom coating asset, the AstraZeneca drug delivery partnership, VivaGel for BV, as well as through progressing clinical trials for DEP docetaxel and other internal DEP candidates. We also are encouraged between the deepening ties between AstraZeneca and SPL. We continue to rate SPL as a Buy.

#### **KEY RISKS**

We see the following key stock specific risks to our investment thesis on Starpharma:

- **Clinical risk:** SPL's clinical trials primarily the Phase III R-BV trials and the Phase I DEP docetaxel trial may fail to demonstrate meaningful safety and efficacy. This may jeopardise the potential for SPL to license the products and/or pursue further clinical development.
- **Technology risk:** SPL is a platform company, with its entire pipeline based on its proprietary dendrimer technology. Any setback clinically or commercially is likely to put the viability of the company's technology at risk.
- **Regulatory risk:** Delays in receiving marketing approval or launch for VivaGel coated condom or BV product will negatively impact our revenue forecasts. This risk also extends to other pipeline products in terms of getting regulatory agreement to conduct clinical trials and marketing approval for launch in various markets.
- Partnering risk: The basic premise behind our investment thesis for SPL is that all its major products get licensed at attractive terms with the partner being responsible for all commercialisation and any further development as required. If SPL fails to secure partnerships at attractive terms, our forecasts will be negatively impacted. Furthermore, if any of SPL's existing collaborations should be terminated, it is likely to shake the markets confidence in SPL's technology and its commercial viability.
- Commercial risk: The VivaGel coated condom sales and revenue from partnerships with Okamoto/Ansell could fail to meet our expectations due to poor commercialization effort, delays in launch, unfavourable experience of consumers with the product, better performance of a competing product etc.
- **Funding risk:** Delays in partnering of products and/or increase in costs of trials beyond what we currently estimate may impact SPL's funding position.

### Starpharma as at 15 June 2017

# RecommendationBuy, SpeculativePrice\$0.735Valuation\$1.17

#### Table 5 - Financial summary

#### Starpharma (SPL) As at 15 June 2017

Profit and Loss					
Y/e June 30 (A\$m)	2015A	2016A	2017E	2018E	2019E
Revenue*	4.3	7.3	6.6	21.8	31.2
EBITDA	-18.6	-22.5	-17.6	6.5	15.7
Depreciation & Amortisation	-1.2	-0.9	-1.0	-0.3	-0.4
EBIT	-19.8	-23.5	-18.6	6.1	15.4
Net interest & Other Income/(Expense)	0.9	0.8	0.7	1.0	1.2
Pre-tax profit (loss)	-19.0	-22.7	-17.9	7.2	16.6
Tax	0.0	0.0	0.0	2.1	5.0
NPAT (adjusted)	-19.0	-22.7	-17.9	5.0	11.6
Less minority interests	0.0	0.0	0.0	0.0	0.0
Net profit (loss) to shareholders	-19.0	-22.7	-17.9	5.0	11.6
Reported net profit (loss) to shareholders	-19.0	-22.7	9.6	5.0	11.6

Including R&D tax incertive, milestones and royalities. FY18 revenue number includes potential uptront from VivaGel BV deal (all indications) and milestone from BV treatment (US) and AZN deals. FY19 revenue number includes potential milestone from BV deal and upfront from DEP docetaxel deal.

Cashflow					
Y/e June 30 (A\$m)	2015A	2016A	2017E	2018E	2019E
Reported NPAT	-19.0	-22.7	9.6	5.0	11.6
Non-cash items	2.0	2.3	-25.1	1.7	1.7
Working capital	3.3	2.7	-3.7	1.6	2.2
Other operating cash flow	0.0	-0.1	0.0	0.0	0.0
Operating cashflow	-13.6	-17.8	-19.2	8.3	15.5
Capex	-0.7	-0.1	-0.1	-0.1	-0.1
Investments	0.0	0.0	0.0	0.0	0.0
Other investing cash flow	0.0	0.1	33.8	0.0	0.0
Investing cashflow	-0.7	0.0	33.7	-0.1	-0.1
Change in borrow ings	0.0	0.0	0.0	0.0	0.0
Equity issued	20.5	32.6	0.0	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0
Other financing cash flow	0.0	0.0	0.0	0.0	0.0
Financing cashflow	20.5	32.6	0.0	0.0	0.0
Net change in cash	6.2	14.8	14.5	8.2	15.3
Cash at end of period* * Includes effect of exchange rate fluctuations on cash balance	30.8	46.0	60.7	69.1	84.7
Free cash flow	-14.3	-17.9	-19.3	8.2	15.3
Balance sheet					
Y/e June 30 (A\$m)	2015A	2016A	2017E	2018E	2019E
Cash	00.0	40.0	CO 7	CO 1	04 7

Y/e June 30 (A\$m)	2015A	2016A	2017E	2018E	2019E
Cash	30.8	46.0	60.7	69.1	84.7
Current receivables	4.0	4.1	4.0	2.6	0.6
Inventories	0.0	0.0	0.0	0.0	0.0
Other current assets	0.2	0.2	0.2	0.2	0.2
Current assets	35.1	50.3	64.9	71.9	85.5
PPE	0.9	0.7	0.5	0.4	0.1
Non-current receivables	0.0	0.0	0.0	0.4	0.0
Intangible assets	8.4	8.1	0.0	0.0	0.0
Other non-current assets	0.0	0.0	0.0	0.0	0.0
Non-current assets	9.3	8.8	0.0 0.5	0.0 0.4	0.0 0.1
	0.0	0.0	0.0	••••	•
Total assets	44.4	59.0	65.4	72.2	85.7
Payables	5.9	8.8	4.9	5.1	5.3
Debt	0.0	0.0	4.3 0.0	0.0	0.0
Provisions	0.0	0.8	0.8	0.8	0.8
Other liabilities	0.0	0.0	0.0	0.0	0.0
Total liabilities	6.8	9.6	5.8	6.0	6.2
Shareholders' equity	37.6	49.4	59.7	66.3	79.5
Minorities	0.0	0.0	0.0	0.0	0.0
Total shareholders funds	37.6	49.4	59.7	66.3	79.5
Total funds employed	44.4	59.0	65.4	72.2	85.7
W/A shares on issue	310.1	345.0	368.1	370.8	373.4

SOURCE: BELL POTTER SECURITIES ESTIMATES

Valuation data					
Y/e June 30	2015A	2016A	2017E	2018E	2019E
Net profit (A\$m)	-19.0	-22.7	-17.9	5.0	11.6
EPS (c)	-6.1	-6.6	-4.9	1.4	3.1
EPS growth (%)	N/A	N/A	N/A	NM	130.5%
P/E ratio (x)	N/A	N/A	N/A	54.4	23.6
CFPS (c)	-4.4	-5.2	-5.2	2.2	4.1
Price/CF (x)	-16.7	-14.2	-14.1	32.7	17.7
DPS(c)	0.0	0.0	0.0	0.0	0.0
Yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%
Franking (%)	N/A	N/A	N/A	N/A	N/A
EV/EBITDA	-11.3	-9.3	-11.9	32.6	13.4
EV/EBIT	-10.6	-9.0	-11.3	34.4	13.7

Share price now	\$0.735				
Valuation:	\$1.17				
Premium (discount) to price	59.2%				
Recommendation:	Buy				
Risk Rating	Speculative				
Profitability ratios					
Y/e June 30	2015A	2016A	2017E	2018E	2019E
EBITDA/revenue (%)	N/A	N/A	N/A	29.7%	50.4%
EBIT/revenue (%)	N/A	N/A	N/A	28.1%	49.2%
Return on assets (%)	-42.7%	-38.4%	-27.3%	6.9%	13.6%
Return on equity (%)	-50.5%	-45.9%	-30.0%	7.6%	14.6%
Return on funds empl'd (%)	-50.4%	-45.9%	-30.0%	7.6%	14.6%
Dividend cover (x)	N/A	N/A	N/A	N/A	N/A
Effective tax rate (%)	0.0%	0.0%	0.0%	30.0%	30.0%
Liquidity and leverage ratios					
Y/e June 30	2015A	2016A	2017E	2018E	2019E
Net cash (debt) (A\$m)	30.8	46.0	60.7	69.1	84.7
Net debt/equity (%)	N/A	N/A	N/A	N/A	N/A
Net interest cover (x)	N/A	N/A	N/A	NM	NM
Current ratio (x)	5.2	5.3	11.4	12.2	14.0

Interims					
Y/e June 30 (A\$m)	2H15A	1H16A	2H16A	1H17A	2H17E
Revenue*	2.4	5.3	2.1	2.0	4.6
EBITDA	-10.2	-9.8	-12.7	-8.9	-8.7
Depreciation & Amortisation	-0.6	-0.5	-0.5	-0.5	-0.6
EBIT	-10.8	-10.3	-13.2	-9.4	-9.3
Net interest & Other Income (Expense)	0.4	0.3	0.6	0.3	0.4
Pre-tax profit	-10.4	-10.0	-12.6	-9.0	-8.9
Тах	0.0	0.0	0.0	0.0	0.0
NPAT (adjusted)	-10.4	-10.0	-12.6	-9.0	-8.9
Less minority interests	0.0	0.0	0.0	0.0	0.0
Net profit to shareholders *Includes R&D Tax incentive	-10.4	-10.0	-12.6	-9.0	-8.9

Share price (A\$) \$0.735

Market cap (A\$m) 271.3

#### **Recommendation structure**

**Buy:** Expect >15% total return on a 12 month view. For stocks regarded as 'Speculative' a return of >30% is expected.

**Hold:** Expect total return between -5% and 15% on a 12 month view

Sell: Expect <-5% total return on a 12 month view

Speculative Investments are either start-up enterprises with nil or only prospective operations or recently commenced operations with only forecast cash flows, or companies that have commenced operations or have been in operation for some time but have only forecast cash flows and/or a stressed balance sheet.

Such investments may carry an exceptionally high level of capital risk and volatility of returns.

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Disclosure: Bell Potter Securities acted as joint lead manager in the December 2015 placement and received fees for that service.

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The stocks of biotechnology companies without strong revenue streams from product sales or ongoing service revenue should always be regarded as speculative in character. Since most biotechnology companies fit this description, the speculative designation also applies to the entire sector. The fact that the intellectual property base of a typical biotechnology company lies in science not generally regarded as accessible to the layman adds further to the riskiness with which biotechnology investments ought to be regarded. **Stocks with 'Speculative' designation are prone to high volatility in share price movements.** Clinical and regulatory risks are inherent in biotechnology stocks. Biotechnology developers usually seek US FDA approval for their technology which is a long and arduous three phase process to prove the safety, effectiveness and appropriate application or use of the developed drug and even after approval a drug can be the subject of an FDA investigation of subsequently discovered possible links between the drug and other diseases not previously diagnosed. Furthermore, the Australian exchange listed biotechnology sector is subject to influence by the global biotechnology sector, particularly that in the USA. Consequently, Australian exchange listed biotechnology stocks can experience sharp movements, both upwards and downwards, in both valuations and share prices, as a result of a re-rating of the sector both globally and in the USA, in particular. Investors are advised to be cognisant of these risks before buying such a stock including **Starpharma. For a list of risks specific to Starpharma please refer to Page 9 of this note.** 

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Each research analyst primarily responsible for the content of this research report, in whole or in part, certifies that with respect to each security or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about those securities or issuers and were prepared in an independent manner and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in the research report.

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