

Analyst

Tanushree Jain 612 8224 2849

Authorisation

TS Lim 612 8224 2810

Starpharma (SPL)

2015 to be a watershed year

Recommendation

Buy (unchanged)

Price

\$0.465

Valuation

\$0.99 (previously \$1.10)

Risk

Speculative

GICS Sector

Pharmaceuticals & Biotechnology

Expected Return

Capital growth	112.9%
Dividend yield	0.0%
Total expected return	112.9%

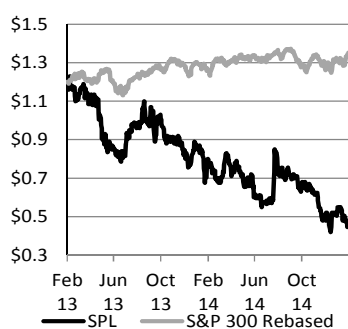
Company Data & Ratios

Enterprise value	\$109.1m
Market cap	\$148.4m
Issued capital	319.14m
Free float	100%
Avg. daily val. (52wk)	\$359,658
12 month price range	\$0.41- \$0.985

Price Performance

	(1m)	(3m)	(12m)
Price (A\$)	0.52	0.64	0.71
Absolute (%)	-9.71	-27.34	-34.04
Rel market (%)	-11.79	-29.62	-40.28

Absolute Price



SOURCE: IRESS

Cash injection places SPL in strong financial position

Following the \$21.5m raised in FY1H15 through placement and SPP, SPL is in a strong cash position. Cash balance of \$39.3m, in our view, will allow it to comfortably progress to the next inflection point on each of its advanced pipeline programs.

Interest is building for dendrimer-docetaxel

Animal results with dendrimer-docetaxel have demonstrated a reduction in some of the frequent dose limiting side effects seen with the original docetaxel drug such as neutropenia, as well as increased anti-cancer activity. Similar preliminary data has started emerging from the Phase I trial in humans showing improved pharmacokinetics (PK) vis-a-vis the original drug and none of the typical side effects. In our view, SPL is better equipped with this first set of safety and PK observations in humans to engage in meaningful licensing discussions with both existing and potential partners on its various drug delivery programmes.

VivaGel - first commercial revenues start in FY2H15

Regulatory approvals for VivaGel Coated Condom (VCC) have been secured in 3 markets to date: Australia, New Zealand and Japan. The Ansell/SPL LifeStyles Dual Protect Condom has been available for purchase in Australia since late October 2014 in Woolworth stores. The launch marks the transformation of SPL from a development stage company to a commercial entity. We estimate royalty revenues from the VCC asset growing from US\$0.2m in FY15 to US\$20m in FY21 as the product launches in additional markets and adoption increases at the back of marketing.

Valuation reduced to \$0.99, maintain Buy rating

The dilution from the recent capital raising, partially offset by revised currency estimates and rolling forward of our DCF model has resulted in a reduction in our valuation to \$0.99/sh (was \$1.10/sh). Our NPAT est. changed as follows -13% FY15 and -248% FY16. We continue to rate SPL as a Buy.

Earnings Forecast

Year end 30th June	2013A	2014A	2015E	2016E	2017E
Revenue (A\$m)	9.5	4.5	4.2	17.0	37.6
EBITDA (A\$m)	-5.8	-14.5	-17.3	-1.5	27.5
NPAT (adjusted) (A\$m)	-5.2	-14.6	-17.5	-1.7	19.3
EPS (adjusted) (cps)	-1.85	-5.15	-5.68	-0.52	5.93
EPS growth (%)	N/A	N/A	N/A	N/A	NM
PER (x)	N/A	N/A	N/A	N/A	7.8
EV/EBITDA (x)	-18.9	-7.5	-6.3	-74.6	4.0
Dividend (cps)	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 (%)	-11.4%	-44.4%	-47.4%	-4.7%	34.1%

NOTE: REVENUE INCLUDES R&D TAX INCENTIVES. FY16 & FY17 REVENUE INCLUDE POTENTIAL UPFRONT FROM DOCETAXEL, VIVAGEL SYMPTOMATIC RELIEF AND PREVENTION OF R-BV DEALS AND ROYALTIES. SOURCE: BELL POTTER SECURITIES ESTIMATES

2015 will be a watershed year for SPL

SPL has filed its Appendix 4C for the quarter ending 31st December 2014 with the ASX.

Following the \$21.5m raised in FY1H15 through placement and SPP, Starpharma is in a strong cash position. Cash balance of \$39.3m, in our view, will allow it to comfortably progress to the next inflection point on each of its advanced pipeline programs.

FY1H15 was a busy period for SPL with the company achieving several milestones.

Key highlights were as follows:

- SPL's partner Ansell secured regulatory approval for the VivaGel coated condom in Australia and New Zealand. The product was launched in Australia at the end of October 2014 through Woolworth stores under the brand 'LifeStyles Dual Protect' and also carries the VivaGel brand. **This is the first product from SPL's VivaGel portfolio to be commercially launched and hence is a key milestone for the company.** We expect royalty revenues from this asset to start flowing in from FY2H15.
- Strengthened cash position via A\$21.5m placement and Share Purchase Plan (SPP).
- Initiated two Phase III trials of VivaGel for the prevention of recurrent Bacterial Vaginosis (R-BV) after reaching agreement with the FDA under a Special Protocol Assessment (SPA) on the design and planned analyses for the trials. While having an SPA does not guarantee approval, its appeal is from a risk reduction point of view. It lays down a definitive path for SPL to follow and therefore reduces regulatory uncertainty.
- Reported encouraging preliminary data from the dose escalation phase of the dendrimer-docetaxel Phase I trial showing improved pharmacokinetics compared to the original drug Taxotere and also absence of the typical dose limiting side effects such as neutropenia and alopecia (hair loss) in patients dosed with dendrimer-docetaxel so far.

We believe that 2015 will be a watershed year for SPL, with the release of Top-line data from the Phase I dendrimer-docetaxel trial by mid-year. 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. **Results from the trial therefore will be a significant inflection point for SPL, with implications for the rest of the drug delivery pipeline.**

We expect multiple catalysts to play out for SPL over the next 12 months which could further de-risk the platform technology and demonstrate its commercial viability.

SPL's strong cash position underpins its future growth and we expect to see the company add value in the medium term through commercial revenue from the condom coating asset as well as VivaGel for Symptomatic relief for BV (Ex-US), as well as through progressing clinical trials for dendrimer-docetaxel and VivaGel for prevention of R-BV.

Following changes to our model ensuing from SPL's latest pipeline update and reported cash of \$39.3m at the end of FY1H15, we value SPL at \$0.99/sh (was \$1.10/sh). The dilution from the recent capital raising, partially offset by revised currency estimates and rolling forward of our DCF model has resulted in a reduction in our valuation. Our NPAT est. changed as follows -13% FY15 and -248% FY16. **We continue to rate Starpharma as a Buy.**

Forthcoming Milestones

In terms of news flow over the next 12 months, we expect the following announcements to act as catalysts for a potential re-rating of the stock:

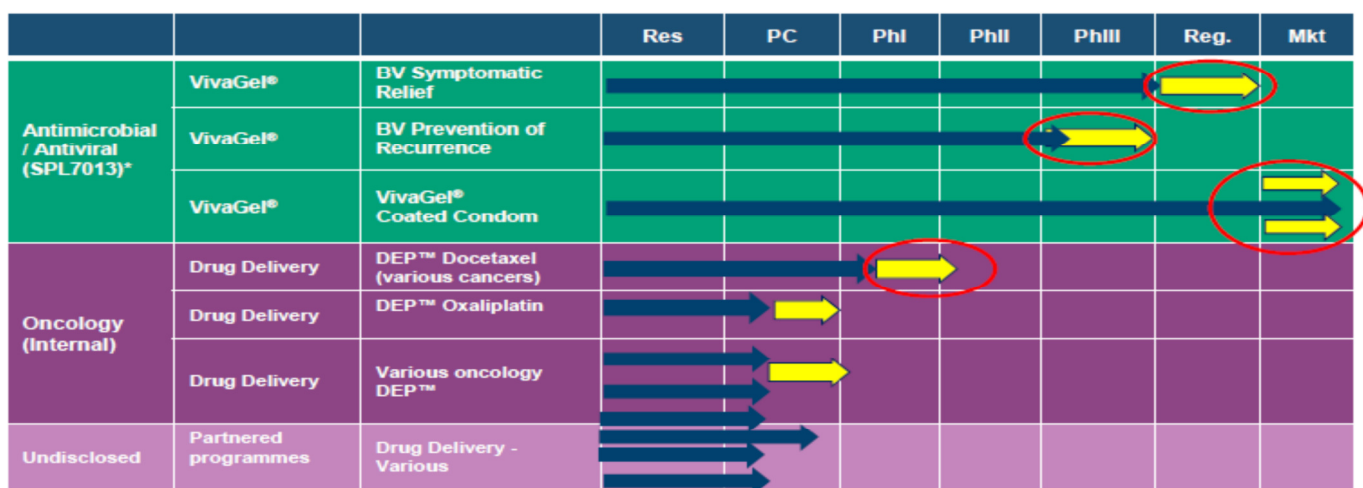
- Regulatory submissions in various markets (Ex-US) for VivaGel for symptomatic relief of Bacterial Vaginosis (BV) in FY3Q15
- Interim data from the first dose escalation phase of Phase I dendrimer-docetaxel trial on what the MTD (maximum tolerated dose) is in FY2H15
- Launch of VivaGel Coated Condom in New Zealand by Ansell and their distributor EBOS group in FY3Q15
- Top line results from dendrimer-docetaxel Phase I trial including the expansion phase of trial in FY4Q15/FY1Q16
- Additional regulatory approvals for VivaGel coated condom in markets under agreement with Ansell in FY2H15
- Licensing and distribution deal for VivaGel for symptomatic relief of BV in FY1H16
- Launch of VivaGel coated condom in Japan by Okamoto in FY1H16
- Results from the two Phase III trials of VivaGel for Prevention of Recurrence of Bacterial Vaginosis by end of FY1H16
- Licensing deal for lead internal agrochemicals program dendrimer-glyphosate in FY1H16

In addition, we expect that over the next 6-12 months one or more of SPL’s various disclosed or undisclosed partnerships both in drug delivery and agrochemicals to expand further, potentially converting to a commercial licensing deal with financial terms attached.

Pipeline update

We briefly summarise the progress across various key pipeline programmes of Starpharma as follows:

Figure 1 - Starpharma – Pharmaceutical Pipeline Portfolio



SOURCE: COMPANY DATA

VIVAGEL – FIRST COMMERCIAL REVENUE STREAM TO START FROM FY2H15

The first product from SPL’s VivaGel portfolio to be commercialised is the VivaGel Coated Condom (VCC) partnered with Ansell and Okamoto. The global condom market is projected to reach ~US\$5.4bn by 2018.

Ansell is the world’s second largest player in the condom market by sales. Okamoto is the market leader in Japan with ~60% share of the Japanese condom market. Japan is the world’s second largest condom market with ~US\$500m in annual sales.

Ansell holds the marketing rights to the VivaGel coated condom in Australia, US and other countries excluding Japan and some Asian markets. Okamoto holds the marketing rights to

the VCC asset in Japan. As per the terms of the agreements, SPL will be paid royalties. We estimate royalty to be tiered in the range of 10-15%, but model a flat rate of 12% for now.

Regulatory approvals have been secured in 3 markets to date Australia and New Zealand (Ansell) and Japan (Okamoto).

The Ansell/SPL LifeStyles VivaGel Dual Protect Condom has been available for purchase in Australia since late October 2014 in Woolworth stores. The launch marks the transformation of SPL from a development stage company to a commercial entity.

It was launched in a pack of 10 for \$12.99 at a ~44% premium to a 10-pack of LifeStyles Nano Thin condom (\$8.99). Most of Ansell's popular Skyn range of condoms (pack of 10) is available online at a price of \$9.99.

Broadly the product carries a claim on the lines of *'The lubricant contains VivaGel which helps to reduce the risk of exposure to viruses that cause sexually transmitted infections STIs. VivaGel has been shown in laboratory studies to inactivate up to 99.9% of HIV, HSV and HPV, which are common viruses that cause STIs'*. Consumer research undertaken by SPL and its partners has shown that there is strong interest in the VivaGel coated condom which is encouraging.

Ansell has been running supporting promotional campaigns in December on Facebook and as per their website will soon have this world's first anti-viral condom available for order through their online store as well.

With the commercial launch of the VivaGel Coated Condom in Australia, we expect royalty revenues from this asset to start flowing in to SPL from FY2H15. We also expect Ansell to launch VCC in New Zealand in FY3Q15.

We expect Okamoto to launch VCC in Japan in FY1H16. While the regulatory certification in Japan was received in March last year, launch of the product has been delayed following a device classification review for the VivaGel condom. We understand that the device classification review arose from the changes to medical device regulations in Japan in November 2014. This classification review does not impact the review process of VCC in other markets.

We estimate royalty revenues from the VCC asset growing from US\$0.2m in FY15 to US\$20m in FY21 as the product launches in additional markets and adoption increases at the back of marketing and brand awareness campaigns undertaken by Okamoto and Ansell. **While the revenues for the first few years will be modest, its value is in the fact that it builds confidence around SPL's ability to commercialise its technology as well as serves as a further validation of the underlying platform technology.**

VIVAGEL – BACTERIAL VAGINOSIS PRODUCT NEARING COMMERCIALITY

Starpharma's VivaGel is also being developed as a topical microbicide for the prevention of recurrent Bacterial Vaginosis (R-BV). It is also being positioned as a symptomatic relief product for women suffering with BV in some markets outside of the US.

Bacterial Vaginosis is the most common vaginal infection in women of childbearing age (14-49). 29% of US women aged 14-49 have had BV. 30% of BV patients in US have recurrence of symptoms within 3 months of therapy and more than 50% experience a recurrence within 12 months. Recurrent BV is defined as episodes of 3 BV or more in 12 months. **There is currently no treatment approved for prevention of recurrent BV.** Current acute treatment option for BV is antibiotics which are few in number and associated with non-adherence, high relapse rates, high side effects and resistance issues. Hence, there exists an unmet need for safe and effective treatments and therapies that can prevent the recurrence of the infection.

VivaGel Dual Protect Condom was launched at a 44% premium price to Ansell's Nano Thin condom in Woolworths

First royalty revenues from VivaGel coated condom expected in FY2H15

VivaGel prevention of R-BV

SPL is running two Phase III trials of VivaGel with 620 patients each for the prevention of R-BV after reaching agreement with the FDA under a Special Protocol Assessment (SPA). SPAs provide no guarantee of approval but are intended to help the drug sponsor and regulators put together a binding agreement of how a clinical study should be conducted.

In our view, SPL having a SPA agreement with the FDA for its Phase III R-BV trials is beneficial from a risk reduction point of view. There is no other approved treatment for prevention of R-BV. Hence, the SPA agreement will be helpful because it lays down a definitive path for SPL to follow.

Quintiles, one of the leading Contract Research Organisations (CRO) have been engaged to conduct the trials. The trials are recruiting patients across ~100 sites in USA, EU, Asia and Mexico.

In each trial, patients with recurrent BV (3 or more episodes of BV in the last 12 months), will be treated with oral antibiotic metronidazole for 7 days and then screened to ensure that they are free of acute BV. Women will be then randomised to receive either 1% VivaGel or Placebo gel, every second day at bedtime for 16 weeks, followed by a 12 week follow-up period. The primary endpoint of the trial will be rate of recurrence of BV by or at the completion of 16 week treatment period, as measured by Amsel's criteria.

As per clinicaltrials.gov one of the trials has 48 sites¹ active and recruiting patients across US, Canada and Puerto Rico. The other trial which has most of the sites Ex-US (Europe and Asia), we understand the majority are active and recruiting including the 4 US sites² listed on clinicaltrials.gov. The company remains on track to complete the trial in CY15, with top-line results expected by end of FY1H16. We expect positive results from this trial would enable SPL to get a lucrative deal (BPe FY17) given the high unmet need and no other approved treatments.

VivaGel Symptomatic Relief of BV

SPL is in advanced stages of preparing its dossier to submit for registration, in various Ex-US jurisdictions, a BV symptomatic relief claim for VivaGel. This will be an OTC (over the counter) consumer product. This means that women will not need to see a doctor to get a prescription and will be able to purchase this off-the-shelf in stores.

All the clinical trials so far have demonstrated the strong BV symptom resolution effect of VivaGel compared to the placebo gel as long as women remained on treatment. In 3 separate VivaGel trials, VivaGel was shown to provide statistically significant improvement in odour resolution as compared to placebo.

We expect the regulatory submissions will be made in FY3Q15. In parallel the company is also engaged in licensing and distribution discussions with potential partners. We expect a deal, primarily royalty based with modest commercial milestones, to be inked in FY1H16. We expect first sales from the BV product for symptomatic relief in FY16.

EXCITEMENT BUILDING FOR DENDRIMER-DOCETAXEL

One of the most exciting aspects of the SPL story for us is the versatility of SPL's dendrimers to be effective as drug delivery agents. SPL is using its dendrimer technology to reformulate well-known off patent cancer drugs with the view of improving their therapeutic profile.

Dendrimer-Docetaxel (DEP docetaxel) is SPL's lead internal programme in drug-delivery. Docetaxel (Taxotere) made by Sanofi Aventis is a leading chemotherapy drug. It is currently approved for multiple indications including breast cancer, head and neck cancer, gastric cancer, prostate cancer and non-small cell lung cancer (NSCLC).

Results from R-BV Phase III trials expected by end of FY1H16

We expect deal for BV symptomatic relief to be inked in FY1H16

¹ Number of sites data on clinicaltrials.gov was last updated on 16th December, 2014

² Number of sites data on clinicaltrials.gov was last updated on 12th October, 2014

Taxotere's patent expired in 2010. Prior to patent expiry, Taxotere generated ~US\$3.1bn in revenue. Apart from the size of the market, the drug has several well-known dose limiting toxicities which make it an attractive target for reformulation using SPL's dendrimers. Neutropenia in particular is a common side effect seen in almost all patients taking traditional docetaxel, with severe neutropenia occurring in ~75%-85% of patients. Neutropenia makes a patient more susceptible to infection.

SPL initiated the Phase I clinical trial with its dendrimer enhanced formulation of docetaxel in January 2014. This is a dose escalation trial which will establish the Maximum Tolerated Dose (MTD), ascertain any dose limiting toxicities as well as assess initial efficacy of SPL's dendrimer-docetaxel.

The trial will recruit ~25-30 patients with advanced or metastatic solid tumours across 3 centres in Australia. The trial is an open label, sequential dose escalation study with two parts:

- **Dose-escalation phase:** This will identify the MTD of dendrimer-docetaxel, as determined by the occurrence of dose limiting toxicities when given intravenously, once every 3 weeks.
- **Dose expansion phase:** In this phase, a cohort of patients will be treated at the MTD derived from the dose escalation phase. Having patients with different type of tumours in the dose expansion phase on the MTD dose, gives a reasonable chance for the company to get some efficacy signals (response to treatment) and potentially help the company to identify the indication it should pursue in Phase II trials.

As we mentioned earlier, positive results from the Phase I dendrimer-docetaxel trial expected by mid CY2015, will be a crucial de-risking event for the company and is likely to trigger a significant re-rating of the stock. The proof of concept data from this trial will also have flow through implications for the rest of the drug delivery pipeline.

The key data point to watch in this trial will be the impact of dendrimer-docetaxel on the well-known dose limiting side effects seen with traditional docetaxel such as neutropenia (low white blood cell count), alopecia (hair loss) and anaphylaxis (severe allergic reaction). **We also hope to get initial efficacy signals from the trial** in terms of response to treatment (complete response, partial response and/or stable disease).

As per company's latest update on the trial following are key points to note:

- All 3 sites in Australia are recruiting patients in the dose-escalation phase of the trial.
- The trial is approaching 50% recruitment (BPe 12-15 patients enrolled so far).
- The company has stated that several patients enrolled so far have been dosed with multiple cycles.
- Although the MTD dose has not been reached as yet, so far dendrimer-docetaxel doses have been well tolerated with patients dosed with the SPL formulation not reporting neutropenia or alopecia.
- The company has also stated that a number of patients have exhibited potential anti-cancer activity with one patient with stable disease over 20 weeks.
- Preliminary pharmacokinetic data from patients dosed with dendrimer-docetaxel showed improvement compared to the original drug Taxotere.

These early observations from the trial are promising, gives us comfort and we look forward to additional data points from the trial at the MTD dose to establish the safety profile of the product.

While preliminary, this is the first set of safety and pharmacokinetic observations of dendrimer-docetaxel in humans. From SPL's point of view having this data in humans makes for much more meaningful dialogue with potential partners.

We expect interim data on identification of MTD in FY2H15, with top-line data from the trial in FY4Q15/FY1Q16. With SPL's strengthened cash position, the company is equipped to fund subsequent Phase II development of dendrimer-docetaxel. We believe SPL could potentially initiate a Phase II trial while holding licensing discussions in parallel. At this stage we assume that dendrimer-docetaxel gets licensed in FY2H16.

We note that ultimately the timing and value of a licensing deal will depend on the strength of SPL's Phase I trial results. Competition is heating up for SPL. While BIND therapeutics with its Phase II asset BIND-014 (Accurin-docetaxel) remains the most relevant competitor for SPL, recently Cerulean Pharma has also advanced its reformulated docetaxel candidate CRLX301 into Phase I/IIa trials. The first patient in Cerulean's trial was dosed in December 2014. The design of Cerulean's trial is similar to SPL's, however they intend to have a larger number of patients (36 in Phase I dose escalation and 24 patients in Phase IIa expansion cohort). Additionally, Oasmia is planning to initiate Phase I clinical trial with its reformulated docetaxel called Docecal for the treatment of metastatic breast cancer in 1H2015.

With respect to BIND, based on the data on BIND-014 so far we believe that dendrimer-docetaxel has the potential to be commercially more attractive and have a significant competitive advantage over BIND-014, should it display a superior safety profile in the currently ongoing Phase I trial. One of the important differentiating factors between dendrimer-docetaxel and BIND-014 is that **dendrimer-docetaxel eliminates the need for docetaxel to be dissolved in the toxic polysorbate 80 and therefore does not require premedication with corticosteroids** such as dexamethasone which has its own side effects such as elevated glucose, insomnia etc.

DATA FROM DENDRIMER-DOCETAXEL TRIAL SETTING STAGE UP FOR MEANINGFUL PARTNER ENGAGEMENT FOR OTHER DRUG DELIVERY CANDIDATES

In our view, SPL is better equipped with this first set of safety and PK observations in humans from the dendrimer-docetaxel trial to engage in meaningful licensing discussions with both existing and potential partners on its various drug delivery programmes.

Internally dendrimer-docetaxel is SPL's lead internal programme, with dendrimer-oxaliplatin the second lead candidate in preclinical development. **Externally SPL has multiple research partnerships in drug delivery with big names like Eli Lilly, GSK and AstraZeneca** and several other undisclosed partnerships.

Further positive data from the dendrimer docetaxel trial would confirm the ability of SPL's dendrimers to be effective drug delivery agents.

Therefore we expect that the results from the trial will allow SPL to engage in more meaningful licensing discussions with potential partners on dendrimer-docetaxel and also on other internal candidates such as oxaliplatin.

Not only that, we expect the preliminary pharmacokinetic data as well as final proof of concept data from the trial to be useful for SPL's existing partners and may lead to acceleration in those partnered projects, resulting in a conversion of the collaboration to a commercial licensing deal with upfronts and milestones.

The existing collaborations indicate the high level of interest in Starpharma's drug delivery platform. Earlier in April 2014, Astra Zeneca expanded its initial agreement with SPL (inked in September 2012) to apply its dendrimer drug delivery technology to a new cancer drug in Astra Zeneca's pipeline and agreed to fund the preclinical joint development programme.

We believe that with the first human data now emerging on pharmacokinetics, safety and tolerability of SPL's dendrimers, in the next 6-12 months we should see more expansion of scope of existing agreements as well as potential conversion into commercial deals.

Human data from dendrimer-docetaxel trial may serve to accelerate and convert SPL's existing research partnerships into a commercial deal

Earnings and Valuation Changes

We have revisited our assumptions for Starpharma based on the recent pipeline update and Appendix 4C filed with the ASX for 1H15.

Key changes to our modelling assumptions

- Updated our model for the gross \$21.5m cash injection from the placement and SPP completed in October 2014. The company issued ~33m shares @0.65/sh.
- Changed timeline for launch and royalty revenues related to VivaGel coated condom in Japan by Okamoto to FY1H16 (previously FY1H15).
- SPL intends to use a part of the recent equity raising to accelerate development of docetaxel through completion of Phase I and into Phase II trials. We now assume that SPL will initiate a Phase II trial prior to licensing the product which has led to an increase in our trial related R&D forecasts.
- Increased our capex and operating cost forecasts for FY15 and onwards based on higher reported costs in 1H15 and potential higher spend on trials conducted in the US following devaluation of AUD.
- We have revised downward our initial market penetration assumptions (Ex-US) for the first few years for the VCC opportunity partnered with Ansell. We expect first royalty revenues in FY2H15 related to two markets (Australia and New Zealand). We expect further regulatory approvals at a similar pace, followed by a time lag of a few months between approval, launch, roll out of supporting marketing campaigns and royalty revenues to finally flow to SPL.
- We have increased the probability of success to 44% (from 38%) for the VivaGel prevention of R-BV indication following initiation of Phase III trials under SPA.
- We have rolled forward our DCF model.
- We now use the revised Bell Potter USD/AUD currency assumptions for 2015 – 17 of 0.80 (previously 0.85) to convert our forecasted commercialisation revenues.

**We value SPL at
A\$0.99/sh**

The dilution from the recent capital raising, partially offset by revised currency estimates and rolling forward of our DCF model has resulted in a reduction in our valuation to \$0.99/sh (was \$1.10/sh). We retain our Buy recommendation.

Table 1 - Key Changes to our FY15-16 Forecasts

	FY2015E			FY2016E		
	Old	New	Change (%)	Old	New	Change (%)
Revenues	4.7	4.2	-10%	17.4	17.0	-2%
Interest Income	0.5	0.9	62%	0.4	0.9	118%
R&D	15.3	16.6	-8%	10.6	13.5	-27%
G&A	4.4	4.9	-12%	4.5	5.0	-12%
EBITDA	-15.0	-17.3	-15%	2.4	-1.5	-162%
EBIT	-16.1	-18.4	-14%	1.2	-2.6	-314%
NPAT (adjusted)	-15.6	-17.5	-13%	1.1	-1.7	-248%
Adjusted Diluted EPS	-5.4	-5.7	-5%	0.4	-0.5	-231%

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

Table 2 - Summary of Valuation

Revised Forecasts	Base case
Enterprise Value from DCF (AUDm)	292.9
Add: Cash at end FY15E (AUDm)	29.5
Less: Debt at end FY15E (AUDm)	0.0
Equity Value (AUDm)	322.3
Total diluted shares at end FY15E (million)	325.6
Value per share (AUD)	\$0.99
Current Share price (AUD)	\$0.47
Expected Capital Growth	112.9%

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 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 Symptomatic Relief	Regulatory Submission planned	2016 (Ex-US)	15.0%	\$56	80.0%	\$40	\$0.12	12.5%
VivaGel BV Prevention of Recurrence	Phase III	2017	25.0%	\$647	44.0%	\$164	\$0.50	50.8%
VivaGel Coated Condom - Okamoto	Regulatory certification received	2016 (Japan)	10.0%	\$21	100.0%	\$6	\$0.02	1.9%
VivaGel Coated Condom - Ansell	Regulatory approval received for AU,NZ	2015 (Ex-US), 2016 (US)	10.0%	\$309	80.0%	\$69	\$0.21	21.3%
Dendrimer-Docetaxel (first solid tumour)	Phase I	2020	15.0%	\$506	15.0%	\$40	\$0.12	12.5%
Dendrimer-Glyphosate	Field Trials ongoing	2016	10.0%	\$763	15.0%	\$17	\$0.05	5.2%
Diagnostics/Laboratory Reagents	On-market	NA	NA	NA	NA	\$5	\$0.02	1.6%
Other Pipeline/Non-allocated	NA	NA	NA	NA	NA	-\$48	-\$0.15	-14.9%
Cash (EOY 2015E)	NA	NA	NA	NA	NA	\$30	\$0.09	9.2%
Debt (EOY 2015E)	NA	NA	NA	NA	NA	-\$0.1	\$0.00	0.0%
Equity Value						\$322	\$0.99	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.

SOURCE: BELL POTTER SECURITIES 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)	Registration (pre-launch)	TBC	2016	25	1.5	NA	23.5	20.0%
VivaGel	BV Prevention of Recurrence	Phase III complete	TBC	2017	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%
Dendrimer-Docetaxel	First Solid tumour	Phase II ongoing	TBC	2016	200	10	90	100	12.0%
Dendrimer-Glyphosate	Crop protection	Pre Regulatory Submission	TBC	2H15/1H16	0	NA	NA	NA	5.0%

NOTE: OUR DENDRIMER-DOCETAXEL DEAL ASSUMPTIONS ARE CONSERVATIVE REFLECTING ITS EARLY STAGE. IT COULD POTENTIALLY HAVE ADDITIONAL VALUE FOR EACH ADDITIONAL INDICATION THAT THE LICENSEE PURSUES.

WE DO NOT INCLUDE COMMERCIAL MILESTONES IN OUR MODEL AT THIS STAGE FOR DOCETAXEL DEAL OR FOR BV PREVENTION OF RECURRENCE.

ROYALTIES ARE LIKELY TO BE TIERED FOR EACH DEAL. WE ASSUME FLAT RATE AT MID POINT OF RANGE FOR NOW.

SOURCE: BELL POTTER SECURITIES ESTIMATES

Upside Risk to our valuation

We have not modelled SPL's potential revenue flow from its partnerships with Nufarm (agrochemicals), Gowan Company (agrochemicals), Makhteshim Agan (agrochemicals), Astra Zeneca (drug-delivery), Eli Lilly (drug delivery), Elanco (drug delivery), GSK (drug delivery) and from its multiple undisclosed partnerships both in drug delivery and agrochemicals. 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 value VivaGel's opportunity in Viral Conjunctivitis and SPL's second internal candidate from drug-delivery Dendrimer-Oxaliplatin, given the early nature of these programmes. These programmes moving ahead into the clinic would be a potential 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 dendrimer-docetaxel, which demonstrated that dendrimer-docetaxel has superior efficacy to docetaxel alone across a wide range of tumours namely prostate, lung, ovarian and breast. SPL's closest competitor BIND Therapeutics, which has an improved docetaxel formulation in development, is pursuing NSCLC and prostate cancer indications. At this stage for SPL, we model dendrimer-docetaxel's opportunity for the first solid tumour indication the company may pursue. However, depending on the results from the Phase I trial, which is recruiting patients with various solid tumours, SPL or a potential licensee, may decide to pursue more than one indication in parallel. This could considerably increase the market opportunity for this asset. **Expanded indications for dendrimer-docetaxel could lead to upgrades in our numbers.** We will revisit our assumptions on the basis of the Phase I dendrimer-docetaxel trial results.

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 multiple sectors including pharmaceuticals, agrochemicals and industrial applications. Starpharma'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 to prevent the recurrence of the common vaginal infection in women, Bacterial Vaginosis (BV). SPL is also working on improved formulations of leading cancer drugs as well as agrochemicals both internally and with external partners. Substantial shareholders include Allan Gray, M&G, Acorn Capital and Dow Chemical Company. Their combined holdings represent ~37.61%.

INVESTMENT STRATEGY

SPL remains an attractive story with multiple shots on goal. We expect multiple catalysts to play out over the next 3 -12 months which could further de-risk the platform technology and demonstrate its commercial viability. We believe that 2015 will be a watershed year for SPL, with the release of Top-line data from the Phase I dendrimer-docetaxel trial by mid-year. 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 \$39.3m underpins its future growth and we expect to see the company add value in the medium term through commercial revenue from the condom coating asset as well as VivaGel for Symptomatic relief for BV (Ex-US), as well as through progressing clinical trials for dendrimer-docetaxel and VivaGel for prevention of R-BV. We continue to rate SPL as a Buy and see good risk/reward buying at current price levels.

KEY RISKS

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

- **Clinical risk:** There is a risk that SPL's clinical trials primarily the Phase III R-BV trials and the Phase I dendrimer-docetaxel trial may fail to demonstrate meaningful safety and efficacy. This may jeopardise the potential for the company 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 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 and 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.

SPL has \$39.3m cash at the end of FY1H15 and has burned gross ~\$1.5m/month on average over the last twelve months

Table 5 - Financial summary

Starpharma (SPL)						Share price (A\$)					\$0.465
As at 2 February 2015						Market cap (A\$m)					148.4
Profit and Loss											
Y/e June 30 (A\$m)	2013A	2014A	2015E	2016E	2017E	Valuation data					
Revenue*	9.5	4.5	4.2	17.0	37.6	Y/e June 30	2013A	2014A	2015E	2016E	2017E
EBITDA	-5.8	-14.5	-17.3	-1.5	27.5	Net profit (A\$m)	-5.2	-14.6	-17.5	-1.7	19.3
Depreciation & Amortisation	-1.1	-1.1	-1.1	-1.2	-1.2	EPS (c)	-1.8	-5.1	-5.7	-0.5	5.9
EBIT	-6.8	-15.6	-18.4	-2.6	26.3	EPS growth (%)	N/A	N/A	N/A	N/A	NM
Net interest & Other Income/(Expense)	1.6	1.0	0.9	0.9	1.3	P/E ratio (x)	N/A	N/A	N/A	N/A	7.8
Pre-tax profit (loss)	-5.2	-14.6	-17.5	-1.7	27.5	CFPS (c)	-3.5	-3.5	-4.7	1.0	6.5
Tax	0.0	0.0	0.0	0.0	8.3	Price/CF (x)	-13.4	-13.5	-9.9	47.4	7.2
NPAT (adjusted)	-5.2	-14.6	-17.5	-1.7	19.3	Yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%
Less minority interests	0.0	0.0	0.0	0.0	0.0	Franking (%)	N/A	N/A	N/A	N/A	N/A
Net profit (loss) to shareholders	-5.2	-14.6	-17.5	-1.7	19.3	EV/EBITDA	-18.9	-7.5	-6.3	-74.6	4.0
Reported net profit (loss) to shareholders	-5.2	-14.6	-17.5	-1.7	19.3	EV/EBIT	-16.0	-7.0	-5.9	-41.8	4.2
* Including R&D tax incentive and royalties.											
FY16 Revenue number includes potential upfront from docetaxel & VivaGel symptomatic relief deals. FY17 revenue number includes potential upfront & milestone from BV prevention of recurrence deal											
Cashflow											
Y/e June 30 (A\$m)	2013A	2014A	2015E	2016E	2017E	Share price now \$0.465					
Reported NPAT plus discontinued ops.	-5.2	-14.6	-17.5	-1.7	19.3	Valuation: \$0.99					
Non-cash items	1.9	2.5	2.1	2.1	2.1	<i>Premium (discount) to price</i> 112.9%					
Working capital	-6.4	2.3	1.0	2.8	-0.3	Recommendation: Buy					
Other operating cash flow	0.0	0.0	0.0	0.0	0.0	Risk Rating Speculative					
Operating cashflow	-9.8	-9.8	-14.4	3.2	21.1	Profitability ratios					
Capex	-0.2	-0.3	-0.6	-0.8	-0.9	Y/e June 30	2013A	2014A	2015E	2016E	2017E
Investments	0.0	0.0	0.0	0.0	0.0	EBITDA/revenue (%)	N/A	N/A	N/A	N/A	73.0%
Other investing cash flow	0.0	0.0	0.0	0.0	0.0	EBIT/revenue (%)	N/A	N/A	N/A	N/A	69.8%
Investing cashflow	-0.2	-0.3	-0.6	-0.8	-0.9	Return on assets (%)	-10.8%	-39.7%	-42.7%	-4.2%	31.7%
Change in borrowings	-0.1	0.0	0.0	0.0	0.0	Return on equity (%)	-11.4%	-44.4%	-47.4%	-4.7%	34.1%
Equity issued	0.9	0.2	20.5	0.0	0.0	Return on funds empl'd (%)	-11.4%	-44.3%	-47.4%	-4.7%	34.1%
Dividends paid	0.0	0.0	0.0	0.0	0.0	Dividend cover (x)	N/A	N/A	N/A	N/A	N/A
Other financing cash flow	0.0	0.0	0.0	0.0	0.0	Effective tax rate (%)	0.0%	0.0%	0.0%	0.0%	30.0%
Financing cashflow	0.8	0.2	20.5	0.0	0.0	Liquidity and leverage ratios					
Net change in cash	-9.1	-9.9	5.4	2.4	20.2	Y/e June 30	2013A	2014A	2015E	2016E	2017E
Cash at end of period*	33.8	24.0	29.5	32.0	52.2	Net cash (debt) (A\$m)	33.7	24.0	29.5	31.9	52.2
* Includes effect of exchange rate fluctuations on cash balance											
Free cash flow	-10.0	-10.1	-15.0	2.4	20.2	Net debt/equity (%)	N/A	N/A	N/A	N/A	N/A
Balance sheet											
Y/e June 30 (A\$m)	2013A	2014A	2015E	2016E	2017E	Net interest cover (x)	N/A	N/A	N/A	N/A	N/A
Cash	33.8	24.0	29.5	32.0	52.2	Current ratio (x)	16.0	7.4	8.2	8.2	12.7
Current receivables	5.3	4.4	3.6	0.8	1.3	Interims					
Inventories	0.0	0.0	0.0	0.0	0.0	Y/e June 30 (A\$m)	2H13A	1H14A	2H14A	1H15E	2H15E
Other current assets	0.2	0.2	0.2	0.2	0.2	Revenue*	2.3	2.8	1.7	1.8	2.5
Current assets	39.3	28.6	33.3	32.9	53.7	EBITDA	-3.5	-5.6	-8.9	-8.6	-8.7
PPE	0.4	0.5	0.9	1.5	2.1	Depreciation & Amortisation	-0.5	-0.5	-0.6	-0.6	-0.5
Non-current receivables	0.0	0.0	0.0	0.0	0.0	EBIT	-4.1	-6.1	-9.5	-9.1	-9.2
Intangible assets	8.8	7.8	6.8	5.9	4.9	Net interest & Other Income (Expense)	0.7	0.6	0.4	0.5	0.3
Other non-current assets	0.0	0.0	0.0	0.0	0.0	Pre-tax profit	-3.4	-5.6	-9.1	-8.6	-8.9
Non-current assets	9.2	8.3	7.7	7.3	7.1	Tax	0.0	0.0	0.0	0.0	0.0
Total assets	48.6	36.9	41.0	40.3	60.7	NPAT (adjusted)	-3.4	-5.6	-9.1	-8.6	-8.9
Payables	1.7	3.1	3.3	3.3	3.5	Less minority interests	0.0	0.0	0.0	0.0	0.0
Debt	0.1	0.1	0.0	0.0	0.0	Net profit to shareholders	-3.4	-5.6	-9.1	-8.6	-8.9
Provisions	0.7	0.7	0.7	0.7	0.7	*Includes R&D Tax incentive					
Other liabilities	0.1	0.0	0.0	0.0	0.0						
Total liabilities	2.6	3.9	4.1	4.1	4.2						
Shareholders' equity	46.0	33.0	36.9	36.2	56.5						
Minorities	0.0	0.0	0.0	0.0	0.0						
Total shareholders funds	46.0	33.0	36.9	36.2	56.5						
Total funds employed	48.6	36.9	41.0	40.3	60.7						
W/A shares on issue	283.3	284.4	308.6	324.7	324.8						

SOURCE: BELL POTTER SECURITIES ESTIMATES

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.

Research Team

Staff Member	Title/Sector	Phone	@bellpotter.com.au
TS Lim	Head of Research	612 8224 2810	tslim
Industrials			
Sam Haddad	Industrials	612 8224 2819	shaddad
John O'Shea	Industrials	613 9235 1633	joshea
Chris Savage	Industrials	612 8224 2835	csavage
Jonathan Snape	Industrials	613 9235 1601	jsnape
Sam Byrnes	Industrials	612 8224 2886	sbyrnes
Bryson Calwell	Industrials Associate	613 9235 1853	bcalwell
John Hester	Healthcare	612 8224 2871	jhester
Tanushree Jain	Healthcare/Biotech	612 8224 2849	tnjain
Financials			
TS Lim	Banks/Regionals	612 8224 2810	tslim
Lafitani Sotiriou	Diversified	613 9235 1668	Isotiriou
Resources			
Peter Arden	Resources	613 9235 1833	parden
Stuart Howe	Resources	613 9235 1782	showe
Fred Truong	Resources	613 9235 1629	fruong
Quantitative			
Tim Piper	Research Assistant	612 8224 2825	tpiper

Bell Potter Securities Limited

ACN 25 006 390 7721

Level 38, Aurora Place
88 Phillip Street, Sydney 2000

Telephone +61 2 9255 7200

www.bellpotter.com.au

The following may affect your legal rights. Important Disclaimer:

This document is a private communication to clients and is not intended for public circulation or for the use of any third party, without the prior approval of Bell Potter Securities Limited. In the USA and the UK this research is only for institutional investors. It is not for release, publication or distribution in whole or in part to any persons in the two specified countries. In Hong Kong this research is being distributed by Bell Potter Securities (HK) Limited which is licensed and regulated by the Securities and Futures Commission, Hong Kong. This is general investment advice only and does not constitute personal advice to any person. Because this document has been prepared without consideration of any specific client's financial situation, particular needs and investment objectives ('relevant personal circumstances'), a Bell Potter Securities Limited investment adviser (or the financial services licensee, or the representative of such licensee, who has provided you with this report by arrangement with Bell Potter Securities Limited) should be made aware of your relevant personal circumstances and consulted before any investment decision is made on the basis of this document. While this document is based on information from sources which are considered reliable, Bell Potter Securities Limited has not verified independently the information contained in the document and Bell Potter Securities Limited and its directors, employees and consultants do not represent, warrant or guarantee, expressly or impliedly, that the information contained in this document is complete or accurate. Nor does Bell Potter Securities Limited accept any responsibility for updating any advice, views opinions, or recommendations contained in this document or for correcting any error or omission which may become apparent after the document has been issued. Except insofar as liability under any statute cannot be excluded. Bell Potter Limited and its directors, employees and consultants do not accept any liability (whether arising in contract, in tort or negligence or otherwise) for any error or omission in this document or for any resulting loss or damage (whether direct, indirect, consequential or otherwise) suffered by the recipient of this document or any other person.

Disclosure of interest:

Bell Potter Securities Limited, its employees, consultants and its associates within the meaning of Chapter 7 of the Corporations Law may receive commissions, underwriting and management fees from transactions involving securities referred to in this document (which its representatives may directly share) and may from time to time hold interests in the securities referred to in this document.

Disclosure: Bell Potter Securities acted as lead manager in the October 2011 and September 2014 placement and received fees for that service.

Biotechnology Risk Warning:

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 10 of this note.**

ANALYST CERTIFICATION:

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.