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Dr. Jackie Fairley CEO

STARPHARMA HOLDINGS LIMITED

ASX:SPL; OTCQX:SPHRY

ASX Spotlight Series - Asia

25 & 27 October 2016

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 health authorities' requirements regarding any one or more product candidates nor can there be any assurance that such product candidates will be approved by any health 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 clinical trial results, including additional analysis of existing clinical data, and new clinical 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 presentation 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.

Overview: Starpharma Holdings Limited (ASX:SPL)

- Melbourne-based ASX300 company; Market Cap ~A$230M
- Unique proprietary polymer (dendrimer) platform
- Deep portfolio of products targeting three large, high value & diversified markets
- Proven track record of commercialisation - the VivaGel® condom in-market & with two other late stage products under development or awaiting launch
- Successful global partnerships in place, creating significant optionality, accelerating path to market & managing investment risk
- Well-funded, with cash reserves of $46M (30/6/16)

Starpharma's headquarters and laboratories
Melbourne, Australia

A global leader in dendrimer products

Starpharma's portfolio includes multiple commercial partnerships with leading companies

Starpharma's Dendrimer Platform
~120 granted patents

VivaGel® Portfolio

VivaGel® Condom

Ansell
okamoto
SKY & LAND

VivaGel® BV (bacterial vaginosis)

- VivaGel® BV Treatment
- VivaGel® BV Prevention of Recurrence

aspen AUSTRALIA

DEP™ Drug Delivery

- Internal DEP™ Programs
- DEP™ docetaxel
- Other DEP™ cabazitaxel, oxaliplatin, targeted etc.

Partnered DEP™ Programs

companies including

AstraZeneca

Agrochemicals

- Priostar® Improved Agrochemicals Glyphosate, Gluphosinate ammonium & others

Partnered Priostar® Programs

companies including

ADAMA
Gowan The Go To Company
ISAGRO

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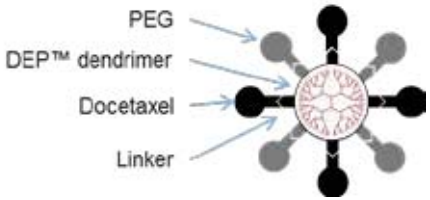
DEP™ Drug Delivery

DEP™ Drug Delivery

Dual Strategy

Provides technical, IP and financial leverage
Increases commercial opportunities
Reduces invested capital
De-risks



Internal Programs

- **Applies DEP™ to generics**
- **Creates new patented agents**
- **Self funded**
- **Return through licensing eg. DEP™ docetaxel**

Partnered Programs

- **Application DEP™ to partner drugs (existing or new)**
- **Creates new patented agents(lifecycle mgt.)**
- **Funded by partner**
- **Platform with very broad application**
- **Return through milestones and royalties eg. AstraZeneca**

General Benefits of DEP™ platform

- **Improved efficacy**
- **Reduced toxicity**
- **Improved pharmacokinetics**
- **Improved solubility**

Extensive partner engagement to maximise commercial outcomes

Starpharma's DEP™ Delivery License with AstraZeneca (LON:AZN)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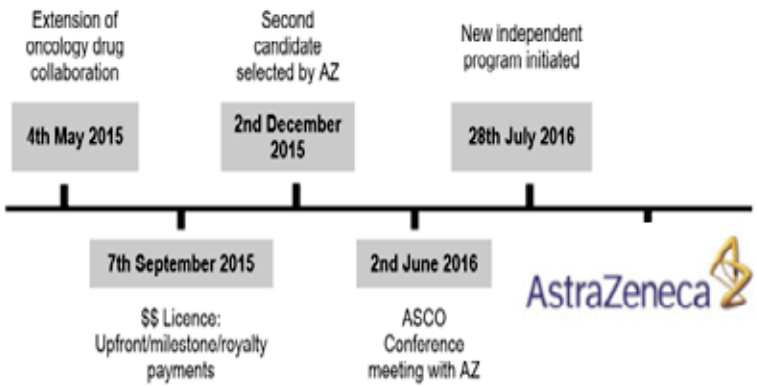
ASX ANNOUNCEMENT

Starpharma signs drug delivery license with AstraZeneca

- AstraZeneca has signed a licensing agreement with Starpharma for the use of its DEP® drug delivery platform in the development and commercialisation of an AstraZeneca oncology compound on signature, and with potential for follow on compounds directed at a defined family of targets.
- Under the agreement Starpharma will receive a signature payment of US$2 million (A$2.9 million), and is also eligible to receive potential development, launch and sales milestones for the first AstraZeneca DEP® product of USD$124 million (A$177 million).
- Subsequent qualifying products successfully developed and commercialised to specified annual sales levels could yield up to USD$93.3 million (A$133 million) in milestone payments per product.
- In summary, signature and milestone payments could total USD$126 million (A$180 million) for the first AstraZeneca DEP® product and up to USD$93.3 million (A$133 million) for each subsequent qualifying product.
- Any AstraZeneca DEP® products would also attract tiered royalties on net sales.
- AstraZeneca will fund all development and commercialisation costs for AstraZeneca DEP® products under the agreement.

"SPL estimates that each product successfully commercialised under this agreement could be worth around US$450m to Starpharma and, depending on the range of indications and degree of commercial success in the market, potentially significantly more"

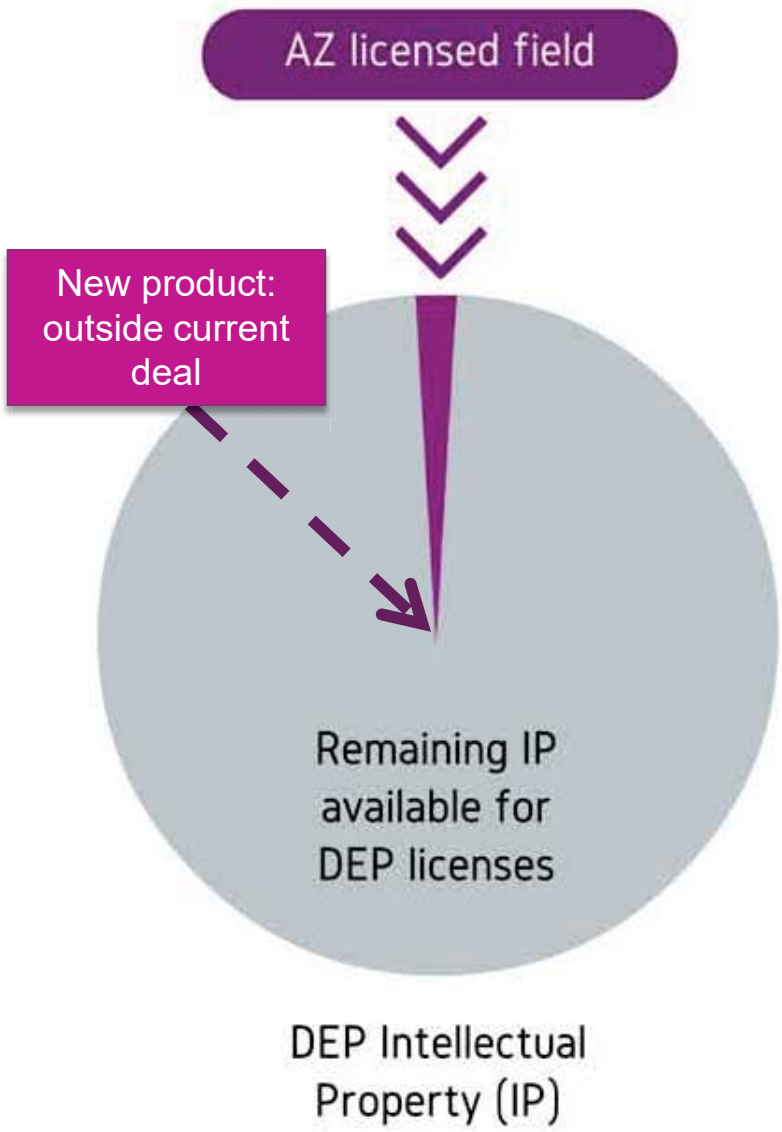
- **AZ multi-product license for use of DEP™ delivery platform for the development and commercialisation of proprietary AZ compounds directed at a defined family of targets**
- **SPL eligible to receive development, launch and sales milestones for the first AZ DEP™ product of up to USD$126m plus royalties & up to USD$93m in milestones for each subsequent qualifying AZ DEP™ products**
- **Tiered royalties on net sales**
- **AZ funds all development and commercialisation costs**
- **DEP™ docetaxel not impacted and agreement field allows for multiple other DEP™ licences**
- **Received US$2M in H1 FY2016**



"We already have a long-standing and successful working relationship with Starpharma. This license agreement will enable us to further harness the DEP™ technology and evaluate its potential across novel molecules within our oncology portfolio."

Dr Susan Galbraith,
Head of the Oncology Innovative Medicines Unit at AstraZeneca

AstraZeneca DEP™ Multi-Product License



AZ Candidate #1
- Indication #1
- Indication #2
- Indication #3

Candidate 1: US$126M milestones + royalties

AZ Candidate #2
- Indication #1
- Indication #2
- Indication #3

Candidate 2: US$93M milestones + royalties

AZ Candidate #3
- Indication #1
- Indication #2
- Indication #3

Candidate 3: US$93M milestones + royalties

AZ Candidate #4...
- Indication #1
- Indication #2
- Indication #3

Candidate 4: US$93M milestones + royalties

Nominated by AZ in September & November 2015 respectively

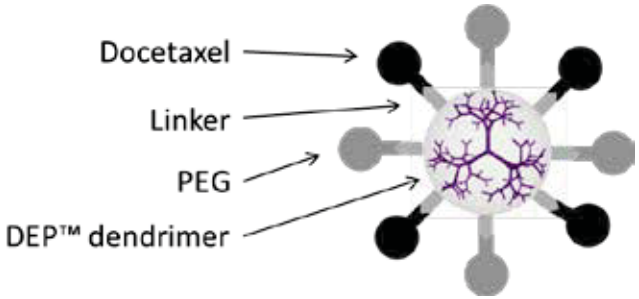
Starpharma's DEP™ Docetaxel: Multiple Benefits

- Docetaxel (Taxotere®) is a blockbuster chemotherapeutic
- Docetaxel sales: US$3.1B (2012)
- Docetaxel is used in major cancers including breast, prostate, lung and ovarian cancer
- Starpharma's DEP™ docetaxel has important advantages compared to Taxotere®#
- DEP™ docetaxel patents filed will offer coverage to 2032 (potential for further filings)
- DEP™ docetaxel Phase 1 trial - no neutropenia, hair-loss and promising efficacy signals

DEP™ docetaxel vs. Taxotere®#

1. Elimination of major dose-limiting side effect (neutropenia)
2. Detergent-free formulation (less toxic)
3. Tumour targeting (40-70x more)
4. Extended duration (half-life)
5. Improved efficacy (breast, ovarian, prostate)

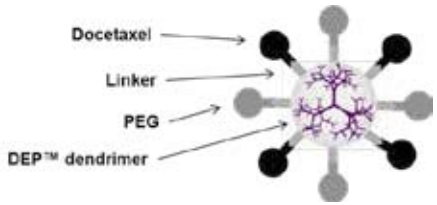
TAXOTERE® (docetaxel) Injection Concentrate



DEP™ docetaxel

DEP™ Docetaxel Preclinical Findings:

Multiple advantages - Better efficacy and less toxicity



Extended Duration & Targeting

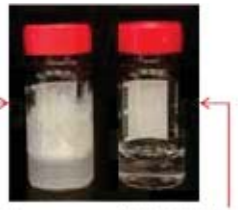
	Plasma Half Life (hours)*
DEP™– Docetaxel	39
Taxotere®	0.5

*n = 4 rats per group

- DEP™ docetaxel formulation extends plasma $t_{1/2}$ by >75-fold vs. Taxotere®

Safety

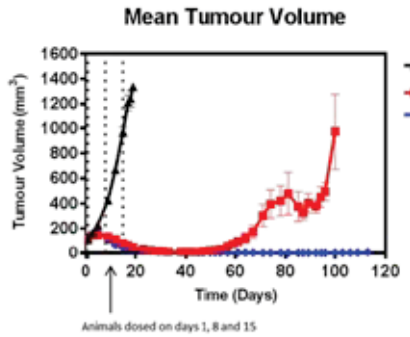
DEP™docetaxel
Polysorbate 80-free
and water soluble



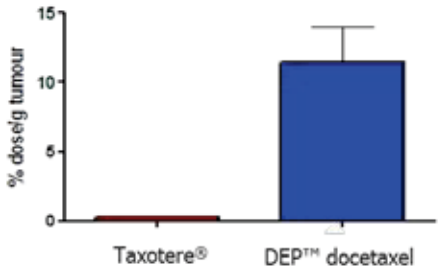
Docetaxel

Starpharma's water soluble DEP™ docetaxel:
- solubility >↑ 20,000x
- polysorbate 80-free

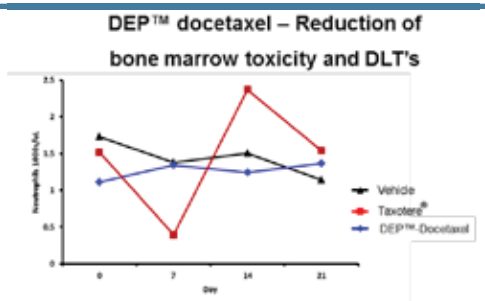
Efficacy



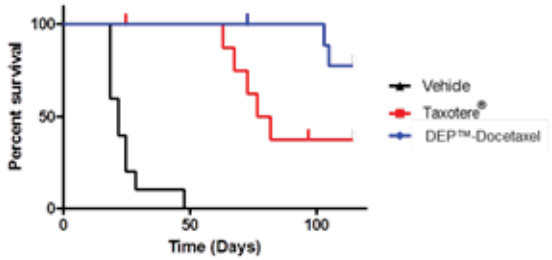
*Mouse Xenograft (MDA- MB 231); N= 10/group; p< 0.0001



DEP™ docetaxel shows preferential uptake into mouse MDA-MB-231 xenograft (45-70 fold)



- Neutrophil levels are expressed as the mean absolute count across all animals (n=6)
- drug (equivalent amounts based on docetaxel) was administered to Sprague Dawley rats by iv injection.



Mantel-Cox log-rank test - Taxotere® vs DEP™ docetaxel (P=0.007).

Patents filed will offer coverage to 2032 (potential for further filings)

DEP™ Docetaxel Phase 1 Clinical Trial:

Encouraging anticancer activity and no neutropenia

- Ongoing open label study, approx. 25-30 cancer patients (various solid tumours)
- DEP™ docetaxel administered intravenously *(no steroid pre-treatment or anti-emetics required - unlike Taxotere®)*

Current status :

- Patients dosed up to & above commonly used Taxotere® dose of 75mg/m^2 multiple cycles (up to 6 cycles)
- Final phase of enrolment underway ; >80% recruited
- Large UK site recently opened will enrich final patient cohort with specific tumour types and facilitate transition to Phase 2

Findings:

- ***No neutropenia*** **(docetaxel dose limiting toxicity) or alopecia (hair loss) reported**
  - *Compared to Taxotere® where* ***severe neutropenia is*** *suffered by* ***75% of patients dosed 60mg/m^2^***
- **A significant proportion of DEP™ docetaxel** patients have exhibited **efficacy signals/anticancer activity**
- **Efficacy signals** for **DEP™ docetaxel** seen
  - **at low doses** and **in cancers not typically responsive to docetaxel**
  - in **pancreatic** (SD* > 20 wks), **oesophageal** (SD > 18wks), **prostate, lung, H&N, and brain tumours**

Phase 2:

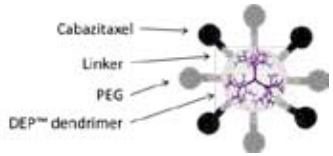
Planning and preparations now well advanced including CRO, trial design, KOLs, sites; clinical trial material manufacture underway

^ Taxotere PI
*stable disease

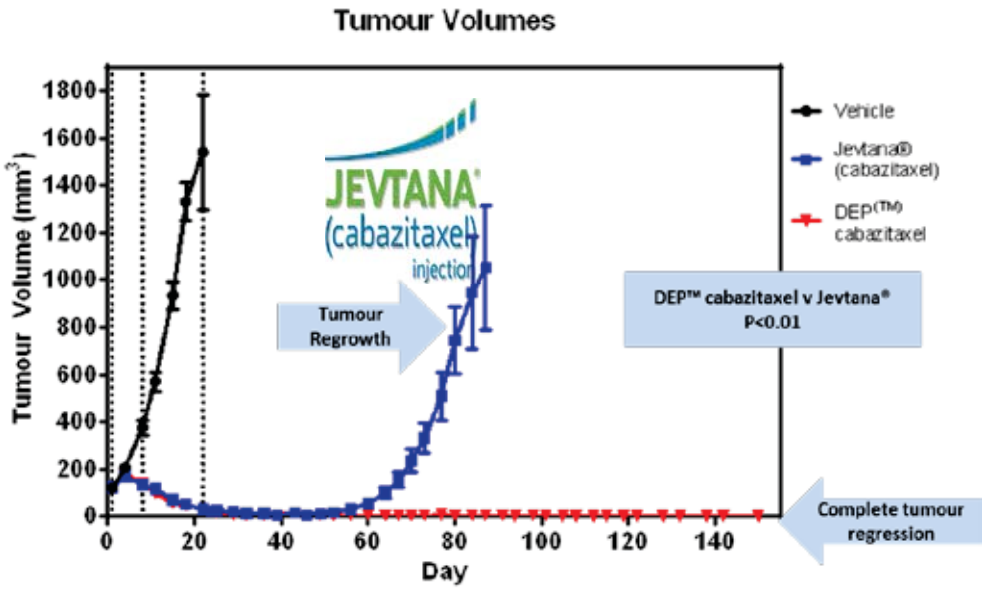
DEP™cabazitaxel:
Significantly improved efficacy in breast cancer model*

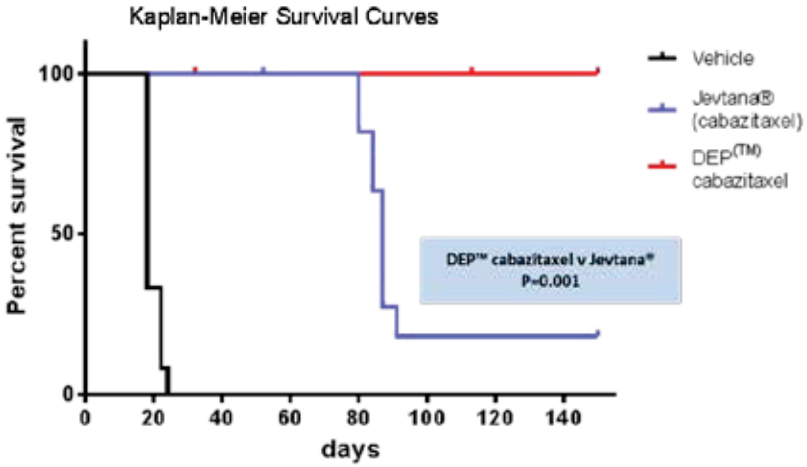
About Cabazitaxel (Jevtana®)

- **2015 sales: US$427m (+18%)**
- **Primary indication – Prostate cancer**
- **In development for various other cancer including breast, bladder, Head and Neck and others**
- **Dose Limiting Toxicity – neutropenia (FDA "Black box" warning)**
- **FDA "Black box" warning due to anaphylaxis (Polysorbate 80 detergent)**



DEP™cabazitaxel

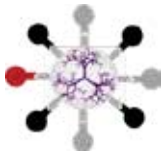




- *MDA-MB-231 (human breast tumour) xenograft model in Balb/c nude mice*

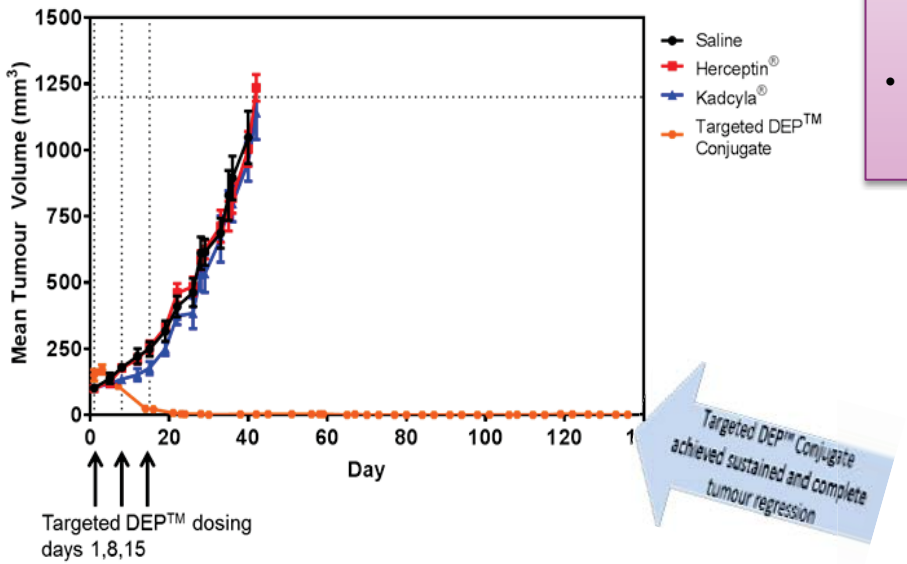
Targeted DEP™ outperforms leading treatments in ovarian cancer model

Targeted DEP™



- **SPL's novel antibody-targeted DEP™ conjugate resulted in complete tumour regression and 100% survival in an ovarian cancer model**
- **The antibody-targeted DEP™ conjugate (using Herceptin as the targeting group) significantly outperformed both Roche's Kadcyla® (T-DM1) and Herceptin® alone**
- **2 targeted DEP™ partnerships recently signed with major players antibody-drug-conjugates**

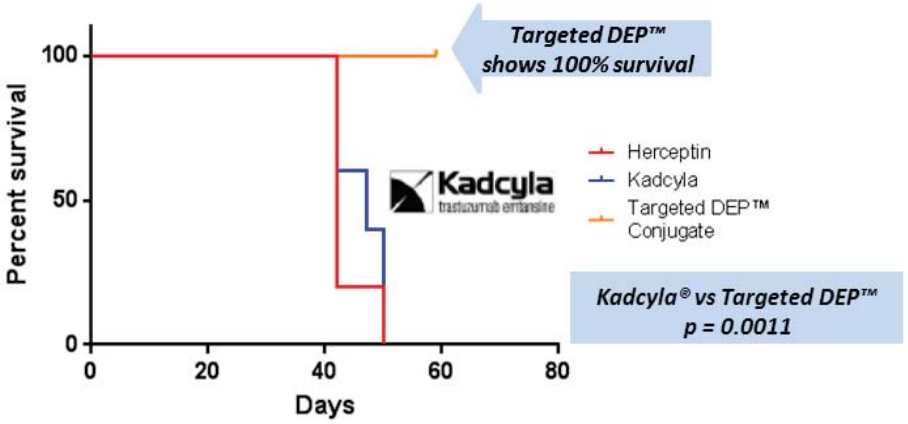
Efficacy of HER2-targeted DEP™ Conjugate vs Kadcyla® and Herceptin® in an Ovarian* Cancer Model



*SKOV-3 Ovarian cancer xenograft in NOD-SCID mice (5-6/group) Saline, Kadcyla® (10mg/kg) and Targeted DEP™ conjugate were dosed once/wk for 3 wks; Herceptin® (20mg/kg) dosed twice/wk for 3 wks.

Statistical analysis at day 40. Kadcyla® vs Targeted DEP™; P <0.0001. (ANOVA followed by Tukey's post hoc test).

Kaplan Meier Survival Curve



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VivaGel® Portfolio

VivaGel® Condom: A compelling, world-first product

- **Typical condom use associated with: ~80% reduction in HIV , 30% reduction in genital herpes (HSV-2) and ~ 70% reduction in risk of HPV infection**
- **VivaGel® Condom contains a potent antiviral and reduces risk of exposure to viruses via viral inactivation - VivaGel® shown in laboratory studies to inactivate up to 99.9% HIV, HPV & HSV-2 & near complete antiviral protection against Zika virus**

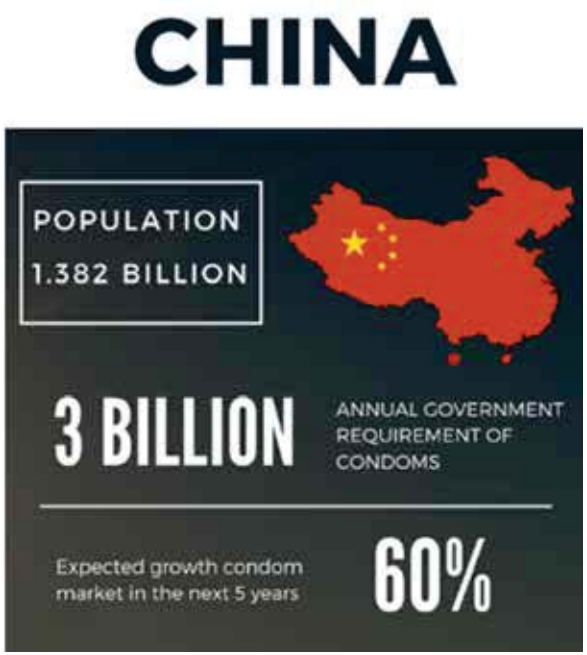
THE WORLD'S FIRST ANTI-VIRAL CONDOM

- VivaGel® Condom has been licensed to Market Leaders:
  - Ansell – No. 2 globally
  - Okamoto – No. 1 in Japan (#4 globally)
  - Shenyang Sky and Land a leading supplier to Chinese Government Market
- Currently marketed by Ansell under **LifeStyles® Dual Protect™** brand (approved in Australia, NZ, Canada with advanced regulatory processes in other regions)
- Branded global condom market: $1.1B
- VivaGel® Condom patents to 2027

DUAL PROTECT™ with VivaGel® : lubricated with VivaGel® which has been shown to inactivate up to 99.9% HIV, HPV and HSV (Herpes) in laboratory studies

VivaGel® condom license for the Chinese Government Market

- **Exclusive license and supply agreement signed with Shenyang Sky and Land Latex Co. Ltd. for manufacture and sale of VivaGel® condoms to the Chinese Government market (July 2016)**
- **New market opportunity for VivaGel® condoms**
- **Sky and Land is a major provider of condoms to the Chinese Government (annual requirement ~ 3 billion condoms)**



Starpharma 签署 VivaGel®避孕套在中国的授权

澳大利亚墨尔本--(BUSINESS WIRE)--(美国商业资讯) -- 澳大利亚生物科技公司 Starpharma Holdings Ltd (ASX:SPL)(OTCQX:SPHRY) 七月二十一日宣布，与沈阳天地乳胶有限公司（天地公司）签署排他性授权和供货协议，面向中国避孕套市场的政府部分市场生产和销售 VivaGel® 避孕套。该协议之前，Starpharma 于 2015 年 12 月与天地公司签署了谅解备忘录。

天地公司是一家拥有多元化业务的中国公司，在中国拥有并运营多家避孕套生产工厂。该公司是面向中国政府的主要避孕套供应商，中国政府通过若干项目向其公民提供避孕套，每年约需要 30 亿只避孕套。

Bacterial Vaginosis and VivaGel® BV
Two product opportunities

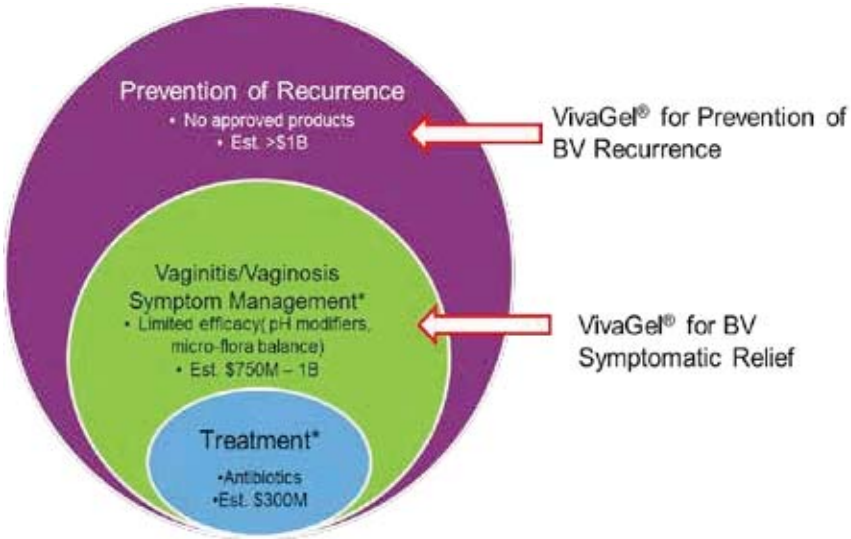
Bacterial Vaginosis (BV):

- Most common vaginal infection worldwide
- ~29% women infected in US; up to 51% in some groups
- Recurrent BV an issue in 50-60% of BV sufferers
- Current therapies have low cure rates and nasty side effects
- No approved products for Recurrent BV (R-BV)

Large market opportunity for both prevention of R-BV and BV Treatment/Symptomatic Relief

- *"It was like gone almost overnight"*
- *"I would definitely use it again."*
- *"The next day I noticed a huge difference."*
- *"I would use it….I will use it* indefinitely…"

VivaGel® BV Trial Participants



VivaGel® BV: Product Proposition

- a non-antibiotic therapy
- management of BV symptoms *and* prevention of R-BV
- a selective antimicrobial effect for pathogens that cause BV
- a local effect and is not systemically absorbed
- bio-adhesive properties

* Global Data, IMS, various Industry reports

VivaGel® BV:
Two attractive commercial opportunities

VivaGel® BV
Treatment &
Symptomatic
Relief

VivaGel® BV
Prevention
of
recurrence

Benefits of VivaGel® BV
- Rapid resolution of symptoms
- Non-antibiotic
- Not systemically absorbed
- Good tolerability
- Selective antimicrobial effect

aspen

- Acute use product
- Global market est. >US$750 m
- EU marketing approval achieved – Treatment of BV, including rapid relief of BV symptoms
- Regulatory approval underway in multiple regions
- Licensed to Aspen for ANZ
- Multiple well-advanced partnering discussions underway (regional & global)
- commercial manufacture underway; 2016 launch planned
- Recent FDA Guidance opens up a significant new opportunity

- Chronic use product
- Unmet need: no approved products;
- Global market est. >US$1 b
- Majority of BV sufferers experience recurrence
- SPA agreement with FDA in place
- Phase 3 programme 100% recruited (Results Q2 CY17)
- Partnering discussions ongoing, NDA planning underway

Advanced licence negotiations underway for multiple regions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Agrochemicals

Starpharma's Priostar® Agrochemical Programs

Partnered Priostar® Programs

- Adama have licensed SPL's Priostar® for novel and improved 2,4-D products for the US market
- Multiple new agreements have been signed or extended with major agrochemical companies for the European, Asian and North American markets
- Collaboration with major Japanese agrochemical company;

ADAMA

Gowan® The Go To Company

ISAGRO

- **Multiple potential opportunities for revenue streams**
- **Estimated value of partners share of market for actives under development: >US$5B**

Internal Priostar® Programs

- Regulatory compliant field trials of Priostar® enhanced versions of several major herbicide and fungicide formulations completed showing a number of commercially compelling benefits

Glyphosate	**($4-5B)**	**Improve efficacy**
Gluphosinate NH_4	**($400m)**	**Improve Efficacy**
Metolachlor	**($605m)**	**Improve efficacy**
Deltamethrin	**($340m)**	**Improve efficacy/ low solvent**
Propiconazole	**($350m)**	**Improve efficacy / Loading**
Imidacloprid	**(>$1B)**	**Improve efficacy / Loading**

Priostar® benefits for innovative crop protection formulations

Better in the can:

- Solubility enhancement
- Increased loading
- Formulation stability
- Reduction/removal of solvents – "greener" formulations

Better in the field:

- Increased efficacy
- Modification of soil penetration
- Protection of Actives

Adama Licenses Priostar® for novel 2,4-D products

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ADAMA

Adama Licenses Starpharma's Priostar for Novel 2,4-D

Melbourne, Australia and Tel-Aviv, Israel: 17 March, 2016 – Starpharma (ASX:SPL; OTCQX: SPHRY) and Adama today announced the licensing by Adama of Starpharma's Priostar® dendrimer technology for the development and commercialization of an enhanced, proprietary 2,4-D herbicide for the US market. 2,4-D is one of the top three herbicides sold world-wide, with global sales in 2014 estimated by Phillips McDougall to be around US$680 million. The US market in 2014 was worth approximately US$115 million, and has been projected by the US Department of Agriculture to grow by more than 70% by 2020.

Adama has already undertaken development of a novel and unique 2,4-D product containing the Priostar® dendrimer technology, which is expected to provide better flexibility and weed control benefits to the grower, as well as improved safety. This will allow for on-target application, thus benefiting the environment by reducing the amounts of product required.

ADAMA

- Adama have licensed SPL's Priostar® for novel, improved 2,4-D products for the US market
- Priostar® enhanced product expected to provide better flexibility, weed control and improved safety
- SPL to receive royalties; Adama to fund development and registration
- 2,4-D is the second largest herbicide globally with sales of US$680m

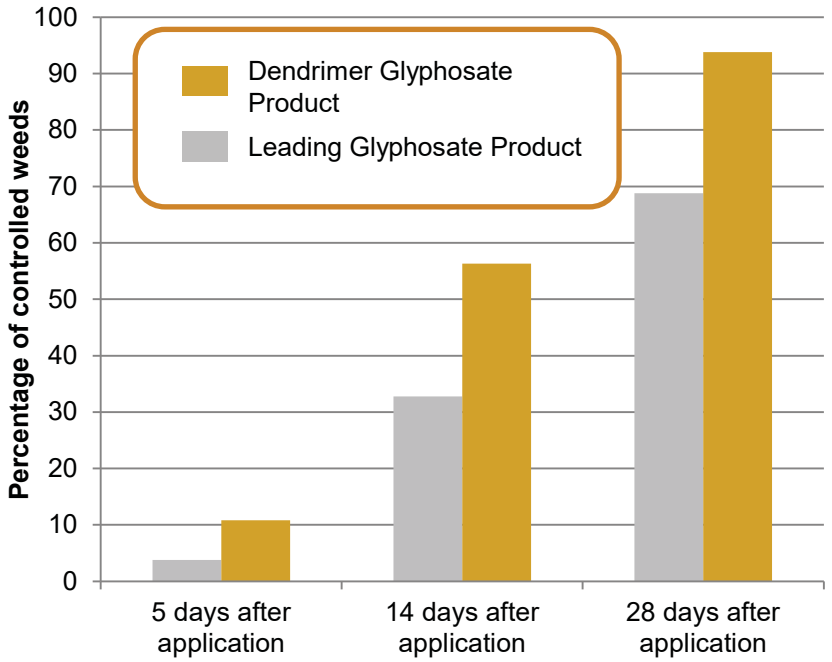
"The innovative nature and superior performance of the Priostar® formulations fit well with our strategy to deliver simple and efficient solutions to farmers to help them grow."

Sami Shabtai,
Head of Innovative Development at Adama

Adama is one of the world's leading crop protection companies with annual sales of US$3.2b and one of the most comprehensive portfolios of differentiated products sold in more than 120 countries.
Adama is privately held by ChemChina and Koor Industries.

Priostar® Dendrimer Glyphosate Formulation – Field Trials

More effective in hard-to-kill weeds than comparable marketed formulation



Proposition:

Priostar® offers a unique opportunity to develop **value-added, IP-protected agrochemical formulations with less expense and risk** than new crop-protection actives

- **Dendrimer product more effective in a number of hard-to-kill weeds than comparable marketed glyphosate product**
- 7 regulatory-compliant field trials have now been completed
- Tested in 16 weed species in Australia and overseas

Conclusion: Priostar® formulation performance has consistently exceeded marketed formulations in these field studies.

- Two key benefits identified with Priostar® formulation:
  - **Better overall effectiveness**

    Dendrimer formulation leaves only minimal number of weeds alive at end of study whereas the marketed product had > 30% survival.
  - **Early feedback of effectiveness to grower**

    3 to 4 times as much “brownout” after 5 days than marketed product

Starpharma Holdings – Key Financials FY16

Strong Financial Position

Key Financial Data	FY 2016 AUD $M	FY 2015 AUD $M
Total revenue & other income	4.6	1.7
R&D Tax Incentive	3.5	3.5
Net loss after tax	(22.7)	(19.0)
Net Cash Burn[1]	(17.5)	(13.7)
Closing Cash (30 June)	46.0	30.8

[1] Net cash burn is considered a non-IFRS value and has not been audited in accordance with Australian Accounting Standards. Net cash burn is calculated by the movement in cash and cash equivalents at 30 June of the applicable year adjusted for net proceeds on the issue of any equity

Outlook: Multiple upcoming development and commercial milestones

VivaGel® Portfolio

- Further regulatory approvals for VivaGel® BV for Treatment & Symptomatic Relief
- Further licenses for VivaGel® BV marketing (multiple territories)
- Launch of VivaGel® BV for Treatment & Symptomatic Relief
- Completion Phase 3 Prevention of BV Recurrence trials for VivaGel® BV & commercialisation
- Further approvals and geographic roll-out of the VivaGel® condom with multiple partners

DEP™ Drug Delivery

- Completion of DEP™ docetaxel Phase 1 clinical trial and commencement of Phase 2
- AZ program announcements – milestones, further compounds advanced
- Other Partnered DEP™ deals
- Additional internal DEP™ candidates advanced through preclinical and into the clinic

Priostar® Agrochemicals

- Progress with Adama 2,4-D Priostar® license
- Further Priostar® licenses and commercial arrangements and regional expansion of existing deals
- Advance internal Priostar® candidates eg. glyphosate and gluphosinate ammonium : regulatory-compliant field trials and pre-registration activities to support commercialisation

For Further Information

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VivaGel®

DEP™ Drug Delivery

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