

# Alchemia



## Alchemia Limited (ASX:ACL) Capital Raising

*11 March 2013*

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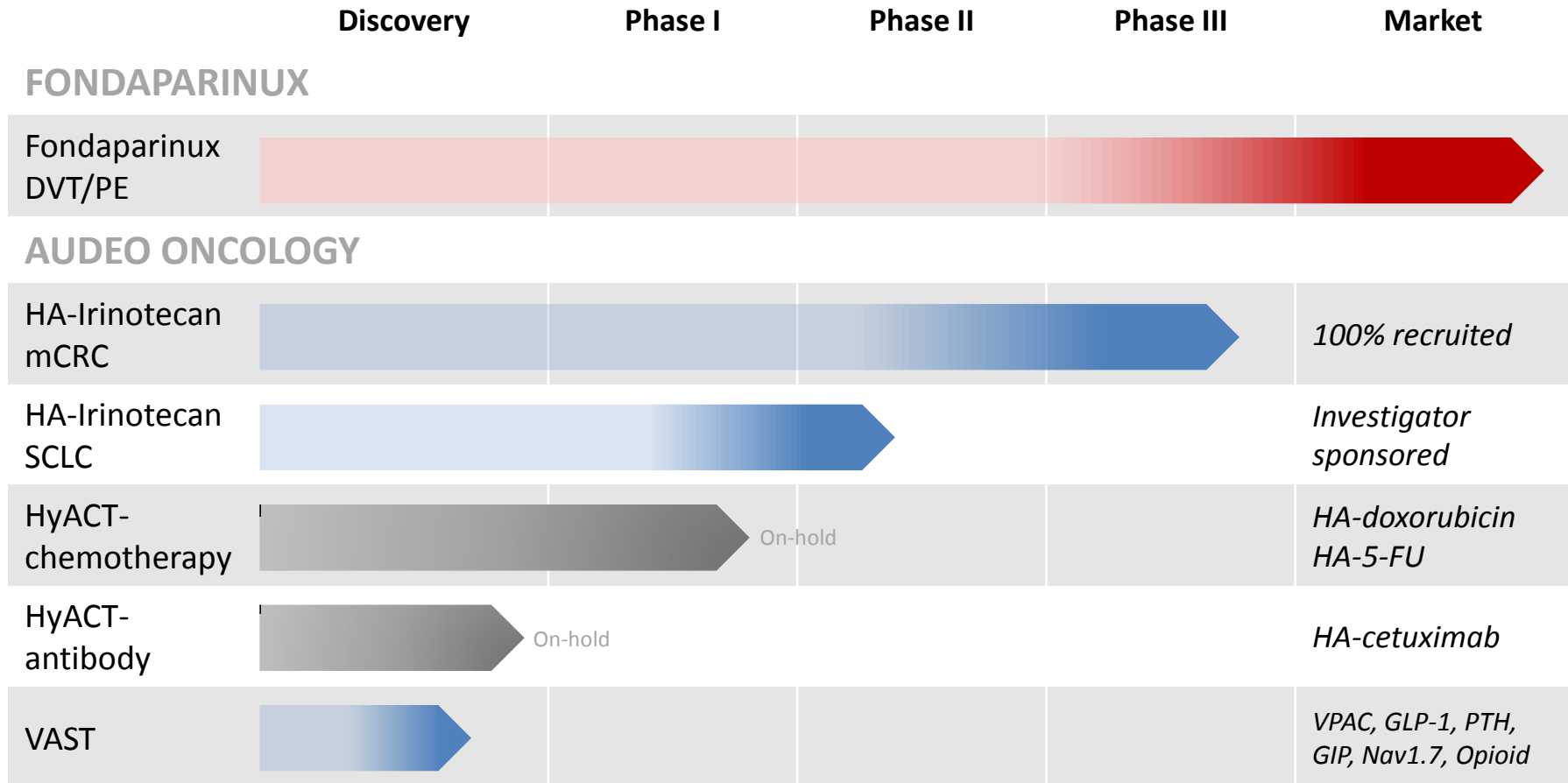
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- Alchemia is raising approximately \$12.2m via a placement and an SPP<sup>1</sup>, principally to fund the remainder of the Phase III clinical trial for HA-Irinotecan in colorectal cancer through to the primary endpoint in early 2014
  - Target Phase III end point
  - Issue price of \$0.30 per share represents a 8.4% discount to the 20 day VWAP<sup>2</sup>
  - Alchemia will continue to pursue financial independence for Audeo Oncology, Inc.:
    - explore opportunities prior to Phase III read-out, with goal of spin out and listing after Phase III results
    - retain focus on releasing the value of fondaparinux for investors, primarily through returning capital to shareholders through dividend or other methods
1. *Comprising a placement of \$10.2 million and an SPP targeting to raise \$2m at the same price as the placement. Alchemia reserves the right to scale back the maximum participation amount per eligible security holder, or accept more than \$12.2m in total*
  2. *The issue price represents an 13.0% discount to the last trading price of 34.5c (6 March 2013)*

- Fondaparinux snapshot
  - DRL increasing market share and profits
  - Building market share (22% Q3-12, 25% Q4-12, total market share by volume)
  - Net Profit (\$1.5m Q3-12, \$2.9m Q4-12)
  - Filed in EU 2012; launch expected 2013
- HA-Irinotecan
  - A pivotal Phase III mCRC recruitment closed at 415 patients
  - Phase II for SCLC ongoing
  - Manufacturing scale up underway
  - Commercial studies / business development has been initiated
- Rationale for funding Audeo in the short-term
  - Retains ACL value close to a key value inflection point
  - Ensures robust negotiation position for funding and partnering
  - Alchemia structured for maximum flexibility to unlock value

# Pipeline



DVT is deep vein thrombosis  
PE is pulmonary embolism

mCRC is metastatic colorectal cancer  
SCLC is small cell lung cancer

# Alchemia



## Generic fondaparinux

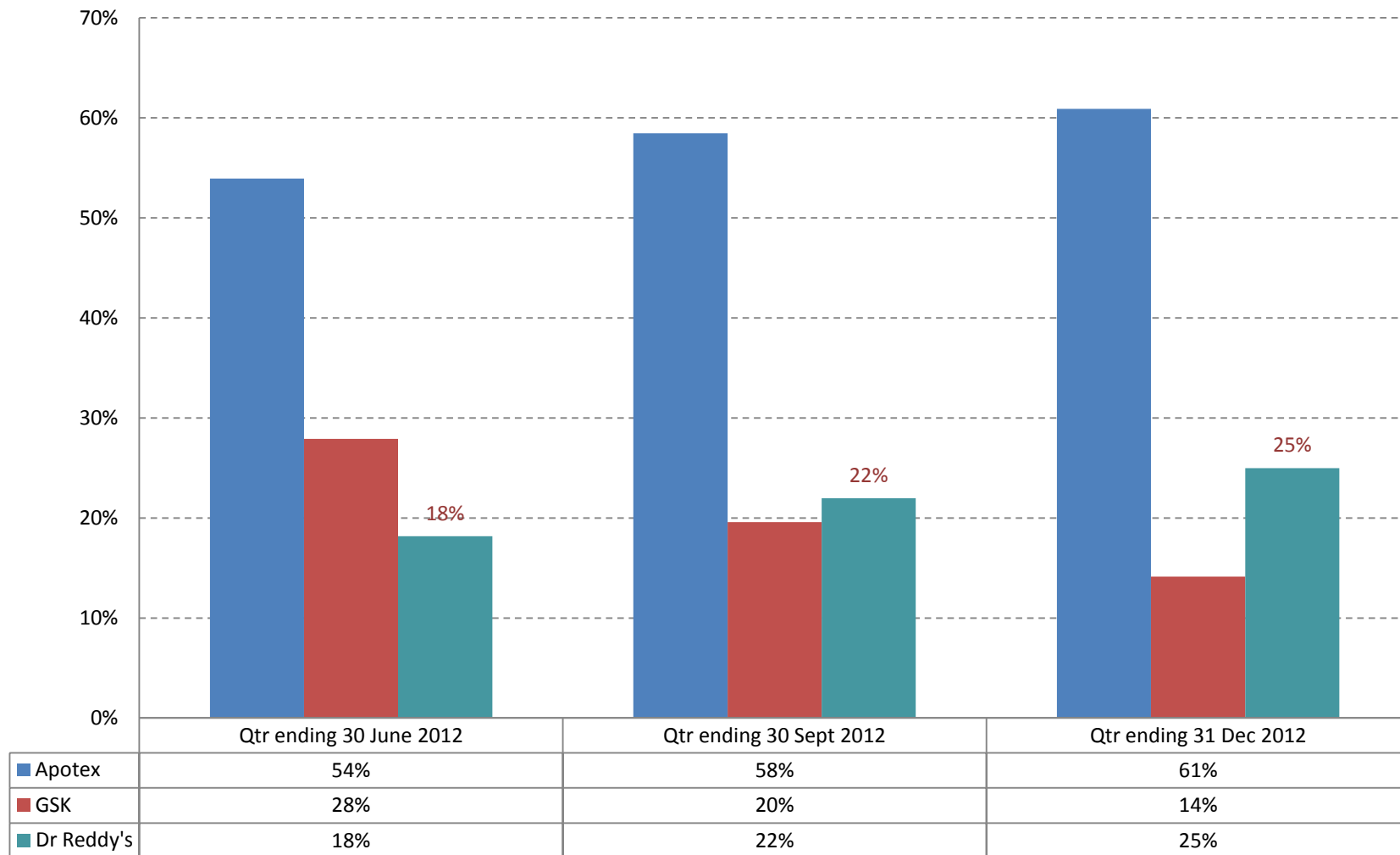
*Profit Share Improved*

# Fondaparinux - Summary

- Market summary
  - GSK loss of share
  - Apotex / DRL gaining share
  - reduction of units (2.5mg; hospital)
  - DRL and Apotex dominating market share
- Dr Reddy's share improving
  - DRL significant increase in retail share
  - DRL limited increase in institutional market share
- Alchemia profit share improved
  - Reduction in API cost
  - Further improvements possible from Sept 2013
- First EU approval expected in 2013



# % Market Share by Volume

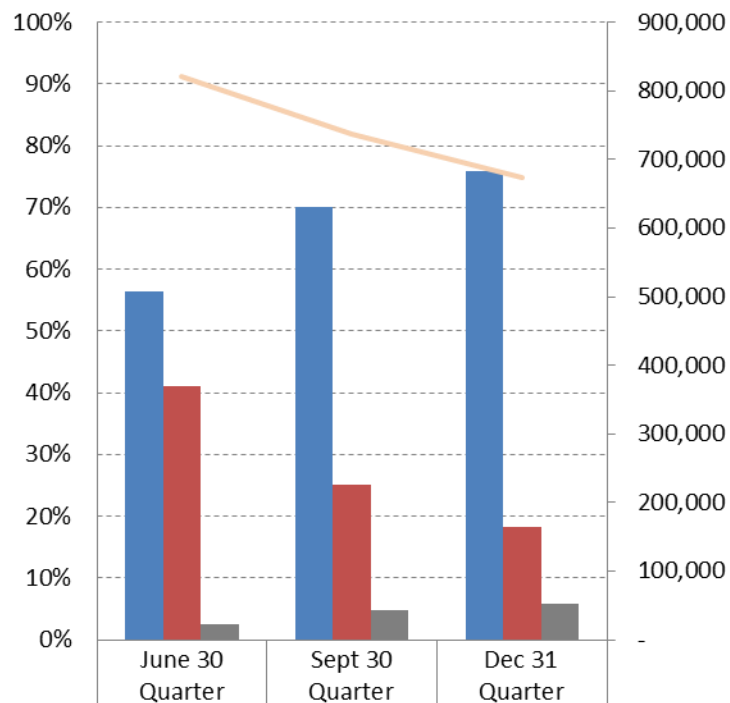


Source: IMS



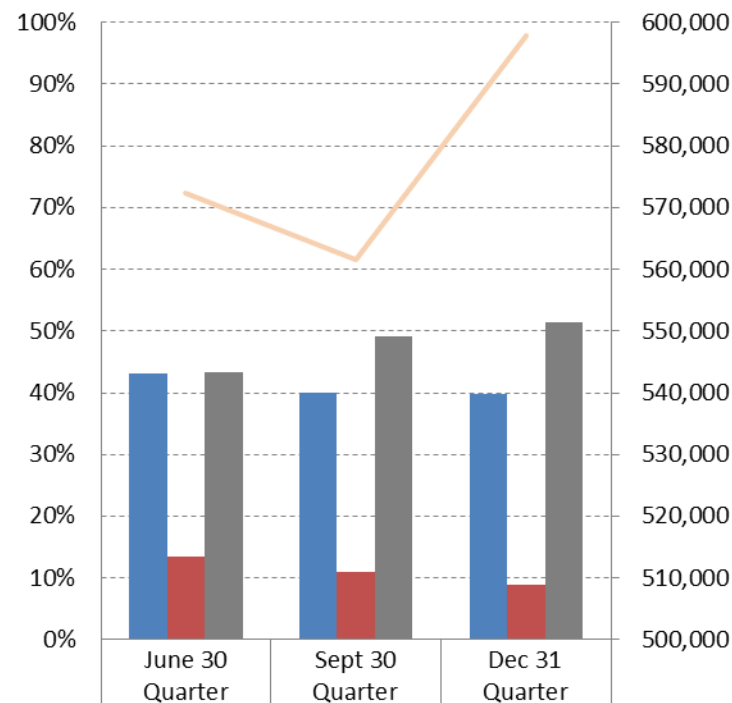
# % Market Share (Volume) by Sector

## Non-Retail Quarter By Volume



Apotex	56%	70%	76%
GSK	41%	25%	18%
Reddy	3%	5%	6%
Total	821,648	736,814	673,401

## Retail Quarter By Volume

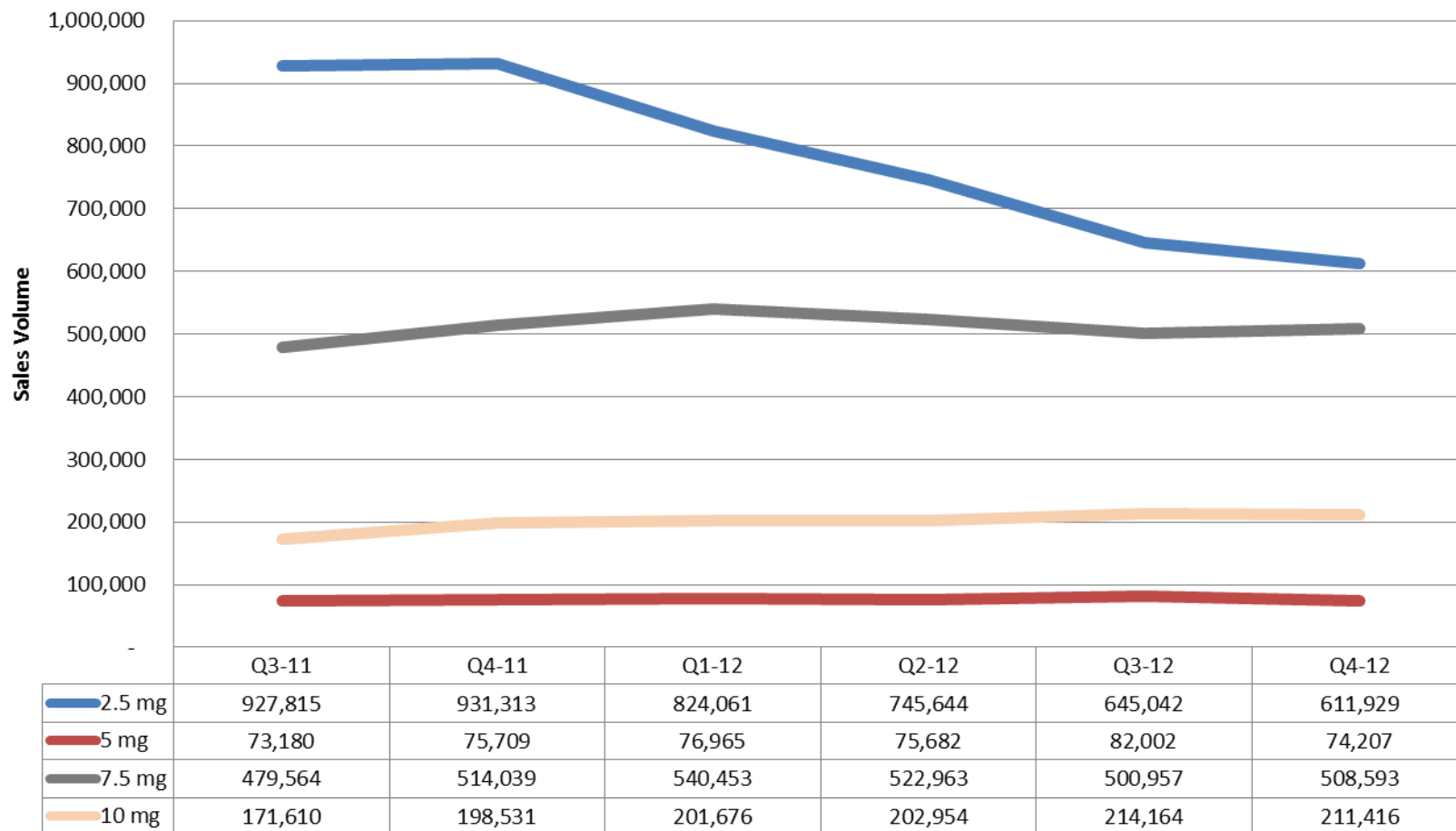


Apotex	43%	40%	40%
GSK	13%	11%	9%
Reddy	43%	49%	51%
Total	572,440	561,589	597,826

Source: IMS

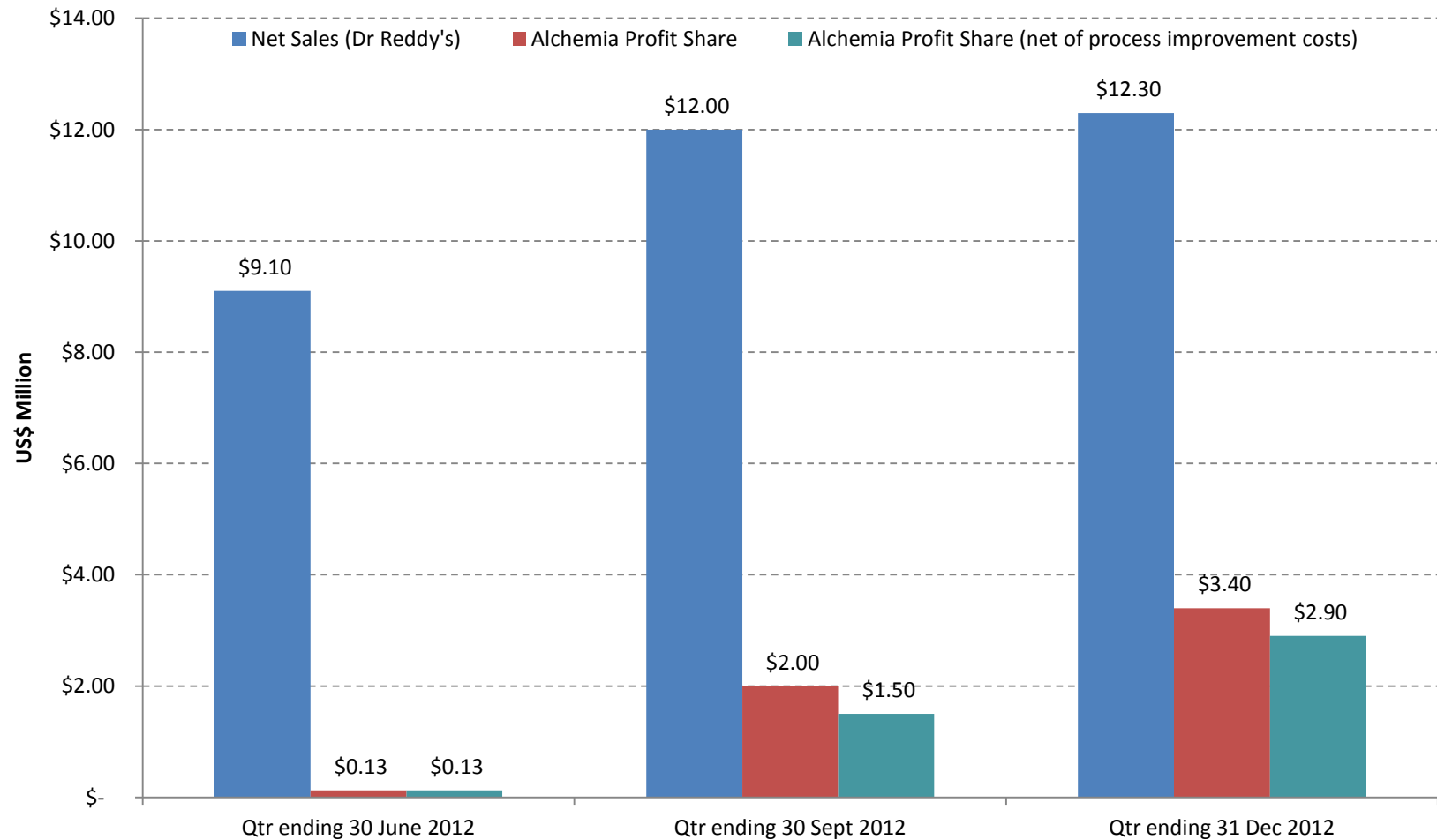
# Quarterly Sales Volume by Dosage Form

Sales volume of 2.5mg, 5.0mg, 7.5mg and 10mg dosage forms of fondaparinux



Source: IMS

# 2012 Quarterly Performance Comparisons



Source: IMS

# Alchemia



## Audeo Oncology, Inc

*HyACT Platform*

*HA-Irinotecan*

*VAST Platform*

*Audeo is a late-stage, oncology focussed biopharmaceutical company with an integrated pipeline of products stemming from two core technology platforms*

- Lead product: HA-Irinotecan is nearing completion of its pivotal Phase III trial in mCRC
  - International, multicentre randomised trial in 76 sites in 7 countries
  - Recruitment of patients completed in February 2013
  - Targeted irinotecan with potential sales of up to \$1.7 billion
  - Product extension in SCLC (Phase II) and other clinical indications planned
- Additional Phase II ready HyACT products
  - HA-doxorubicin and HA-5-fluorouracil
- Preclinical oncology pipeline
  - HyACT antibodies
  - HyACT chemotherapeutics
  - VAST discovery projects

*We believe that HyACT has the potential to enhance the efficacy of a range of anti-cancer drugs*

- Proprietary platform uses hyaluronic acid (HA) to target existing drugs to CD44 positive tumours to promote increased drug uptake
- Receptor-based mechanism targets CD44 receptors
- Positive preclinical results with seven HyACT-targeted anti-cancer agents
- Equivalent or superior toxicity profile in Phase I and II clinical evaluation
- No change in plasma pharmacokinetic parameters
- Lead HyACT drug candidate HA-Irinotecan has achieved statistically significant increases in efficacy endpoints in a randomized Phase II trial

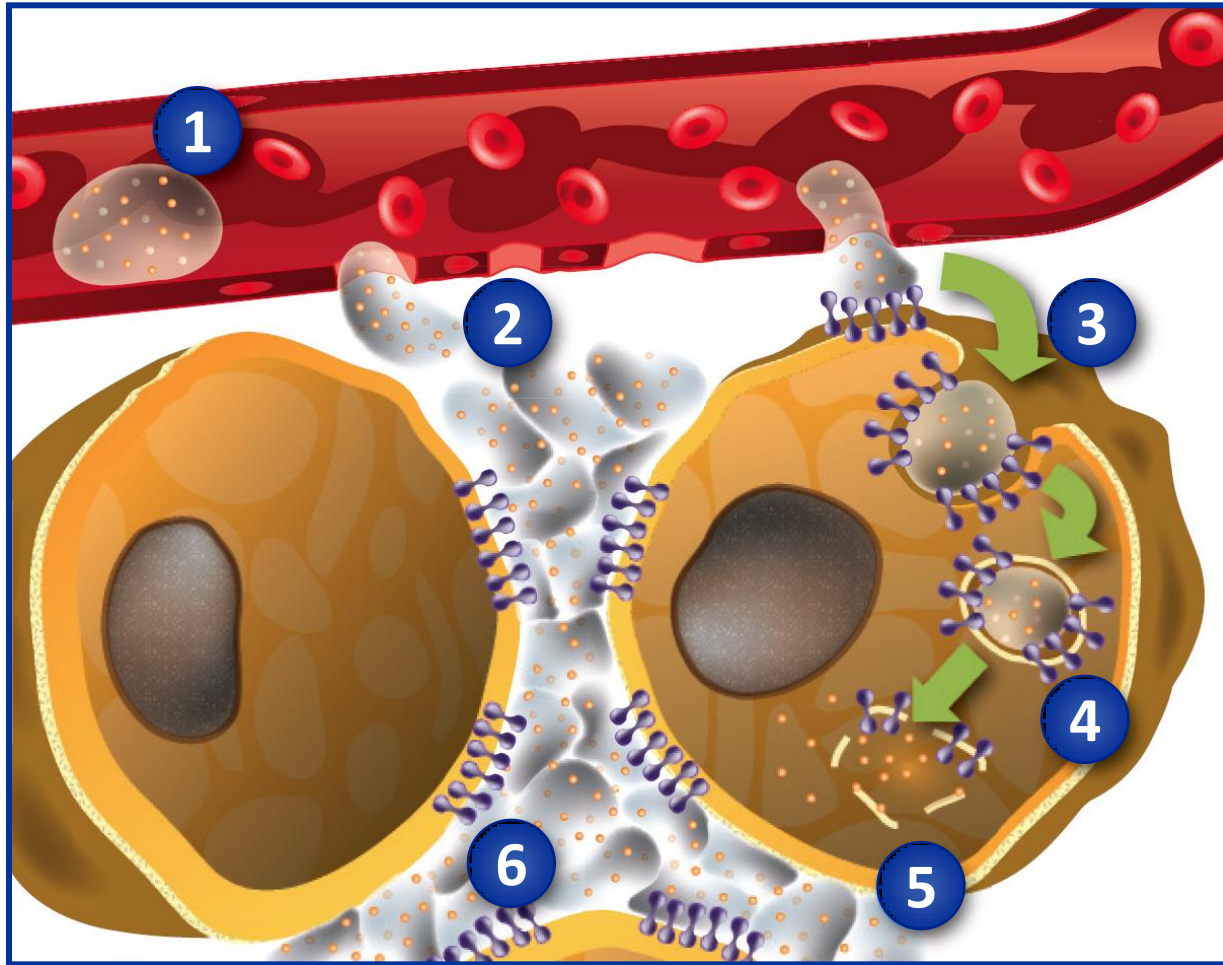
# HyACT Targets CD44, a Validated Tumour Target

*Activated CD44 enables HA binding and internalisation; resulting in more drug entering the tumour cell*

- CD44 is a naturally occurring HA receptor, present in many solid tumour cancers
  - CD44 over-expression in tumours associated with:
    - aggressive/metastatic cancers
    - cancer stem cells, which are generally more resistant to chemotherapy
  - CD44 generally not activated in healthy tissue
- Preclinical studies show HA binds to activated CD44 promoting internalisation of HyACT-targeted anti-cancer drug into tumour cells
- Preclinical studies have demonstrated HyACT carries anti-cancer drugs preferentially to cancer cells and increases drug uptake by those cells



# HyACT Mechanism of Action



This figure represents our hypothesis regarding the HyACT mechanism of action based on preclinical data and published literature; clinical significance is unknown



- Patients with mCRC, 2nd/3rd line, Irinotecan-naïve
  - 415<sup>th</sup> patient recruited February 2013
  - 390<sup>th</sup> patient recruited by 31 January 2013 on time
  - Some centres held open to recruit additional 20 patients to bolster FDA requested substudy, additional improvement to statistical power
- FOLFIRI versus FOLF(HA)-Irinotecan regimen
  - Leucovorin+5FU+Irinotecan vs. leucovorin+5FU+HA-Irinotecan
- Randomized, double-blinded, multi-centre
  - 76 trial sites across 7 countries: Australia and countries in Eastern and Western Europe
  - PSI is managing and coordinating the trial
- Primary endpoint Progression Free Survival (6 weeks or more)
- Primary endpoint analysed after 350 events
  - Statistical review and modelling on available blinded data suggests that on average, patients are continuing treatment for longer than anticipated, before disease progresses. Due to these encouraging results, primary endpoint is likely to be met in early 2014

- Colorectal cancer = 3<sup>rd</sup> most common cancer, 10% of all cancer cases
  - 150,000 new cases in the US each year
  - 50,000 deaths each year in US
- Branded Irinotecan (Camptosar, marketed by Pfizer) had sales of over \$950M in 2007
- Recent NCCN Guidelines approved the use and reimbursement of irinotecan in 1st, 2nd and 3rd line mCRC
  - Increasing use of irinotecan-containing regimens in mCRC, especially in combination with targeted therapies (Avastin, Erbitux, Zaltrap)
  - FOLFIRI regime is one of the leading treatments mCRC
  - Single agent Irinotecan recommended for patients who cannot tolerate multiple chemotherapeutic regimens
- Irinotecan use also observed in other cancer indications such as advanced ovarian cancer, glioblastoma multiforme, NSCLC, SCLC

# Phase II Trial for the Treatment of SCLC

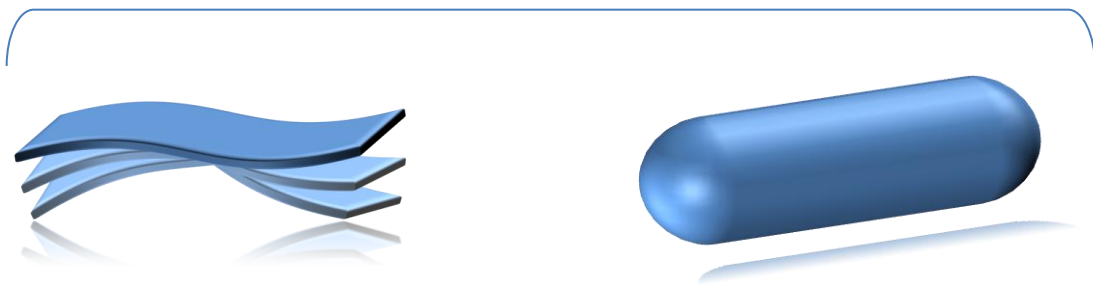
- Investigator-sponsored study in Victoria, Australia
  - Success in study has potential to further validate the HyACT platform
- Phase II Study of HA-Irinotecan in SCLC
  - Randomized, approximately 40 patient study
  - HA-Irinotecan + carboplatin vs. Irinotecan + carboplatin
  - Primary endpoints are safety (incidence of grade 3 and 4 toxicity) and tumour cell burden
  - Secondary endpoints include PFS at 6 months, ORR, cumulative dose of Irinotecan, quality of life and OS
  - Original protocol provided for recruitment of first line chemotherapy-naïve SCLC patients
  - Protocol was altered in May 2012 to include second line patients
- Began Phase II enrolment September 2011
  - Seek to obtain clinical data on HA-Irinotecan's activity on cancer stem cells
  - 13 patients currently enrolled

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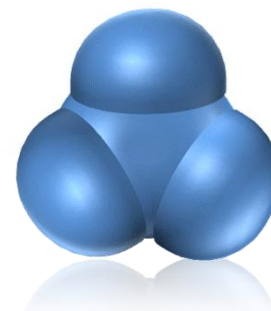


## VAST Technology

Classical pharma small molecule shapes



VAST shapes



- Small molecule drug discovery technology
- An array of diverse compound shapes or “3D keys”, which cover unique chemical territory
- Financially efficient with a focus on productivity through partnerships and grants
  - Partnering with industry and academic partners
  - Grant funding to support internal collaborative drug discovery programs
  - Collaborations with WEHI (oncology), UQ (pain) and MIPS (allosteric modulation)
  - Evaluating with big pharma

# Alchemia



## Corporate Overview & Capital Raising

# Plan to Extract Value from Alchemia's Assets



- Maintain focus on HA-Irinotecan, late stage asset close to a key value inflection point
  - funds principally required to supplement existing cash reserves, R&D Tax Incentives and fondaparinux income to fund Phase III trial
- Ensure that Alchemia maintains a strong position for any partnering/financing activities
  - retain flexibility, but
  - maintain focus of achieving financial independence of Audeo Oncology, Inc.
  - Partnering / business development initiative underway
- Audeo Oncology, Inc. :
  - seek financial independence for Audeo
  - seek listing for Audeo on public exchange (e.g. US and/or Australia) (subject to market conditions)
  - retain focus on Alchemia returning funds to shareholders

- 1st Half – Calendar Year 2013
  - Phase II SCLC trial update
  - DSMB review of Phase III trial
  - IP Update
  - Fondaparinux receipts for Q3 FY13
- 2nd Half – Calendar Year 2013
  - Fondaparinux receipts for Q4 F13
  - Fondaparinux receipts for Q1 F14
  - Phase II trial update
  - R&D tax incentive update
- 2014 onwards
  - Phase III endpoint of trial and results
  - Fondaparinux receipts for Q2 F14
  - Fondaparinux receipts for Q3 F14
  - Phase II trial progress
  - Partnership progress
  - Potential demerger of Audeo Oncology
  - Return of capital from Fondaparinux revenues to Alchemia shareholders
  - Periodic updates



## Board of Directors

- Melvyn Bridges, Chairman, (ALS Limited, ImpediMed, Tissue Therapies)
- Tracie Ramsdale, PhD, (founder Alchemia)
- Nerolie Withnall (ALS Limited, Computershare, PanAust)
- Up to three new directors to be appointed in the short term

## Senior Management

- Charles Walker, MBA, CEO <sup>1</sup>
- Tracey Brown, PhD, CSO, VP of Oncology
- Michael West, PhD, Vice President of Intellectual Property and Technology Transfer
- Wim Meutermans, PhD, Vice President of Drug Discovery
- Goslik Schepers, PhD, Vice President of Business Development

1. Charles Walker appointed CEO of Alchemia Limited on 18 February 2013

# Financial Summary

<b>Market capitalisation:</b>	<b>A\$96.9m</b>
Current share price:	A\$0.345
Cash on hand	
Cash equivalents as at Dec 31 2012:	A\$6.2m
Gross proceeds from raising <sup>1</sup>	A\$10.2m
Proforma cash on hand <sup>2</sup>	A\$18.4m
Total debt:	A\$0.0m
<b>Capital Structure (pre-Placement &amp; SPP):</b>	
Shares outstanding:	280,877,455
Options outstanding:	10,861,000 <sup>3</sup>
Fully diluted:	291,738,455
Substantial shareholder (Alan Gray, Orbis): -	19.0%
Management & directors (excluding options): -	1.3%

1. Excludes proceeds from SPP: In addition to the placement, shareholders will be offered an SPP targeting to raise \$2m at the same price as the placement. Alchemia reserves the right to scale back the maximum participation amount per eligible security holder, or accept more than \$2m in total under the SPP

2. Pre fondaparinux revenues. As Phase III clinical trials progress, there will be increased costs, as indicated in the proposed use for funds

3. Includes granted and approved options

Note: Market Cap , Stock Price, and Capital Structure as of 6 March 2013

# Offer Details

## Pricing

Closing price on 6 March 2013	\$0.345
Placement price	\$0.30
Discount to 20 day VWAP	8.4%
Discount to closing price	13.0%

## Equity Raising Details

Placement	
Placement shares	34.0m
Placement proceeds	\$10.2m
SPP	
Size <sup>1</sup>	\$2m
Total equity raised - approximately	\$12.2m

## Shares on Issue

Current shares on issue	280.9m
Placement shares	34.0m
Shares on issue after placement	314.9m
Estimated <sup>2</sup> number of shares to be issued under the SPP	6.7m

## Offer Structure & size

Single Tranche Placement

Followed by SPP to all shareholders registered at 7pm Friday, 8 March 2013 at the Placement price

## Ranking

Shares issued under the Placement and SPP will rank equally in all respects with existing ordinary shares from allotment.

1. Alchemia reserves the right to scale back the maximum participation amount per eligible security holder, or accept more than \$2m in total
2. Estimate based on SPP proceeds of \$2 million at same price as Placement

- AMOUNT RAISED c.\$12.2 m<sup>1</sup>
- Funds raised will supplement cash on hand - \$6.2m (31 December 2012) – and in addition to new R&D Tax Incentive payments and Fondaparinux revenues, applied as follows<sup>2</sup>:
  - Phase III trial and regulatory filings \$7.9m (69%)
  - Manufacture of HA-Irinotecan \$0.8m (7%)
  - Phase II trial \$0.1m (1%)
  - VAST \$0.9m (7.8%)
  - HyACT \$1.2m (11%)
- Issue Costs (<5%)

1. *Estimate based on SPP proceeds of \$2 million*

2. *Inclusive of corporate overheads, property and similar costs*

	Dates
Trading Halt Commences	Thursday 7 March
SPP Record Date	7pm Friday 8 March
Capital raising announced, Offer Documents lodged with ASX, ACL shares re-commence trading	Monday 11 March
Settlement of Placement Shares	Monday 18 March
Allotment and ASX quotation of shares issued under Placement	Tuesday 19 March
SPP offer documents dispatched to shareholders	Monday 18 March
SPP offer closes	Friday 5 April
Allotment of shares issued under SPP	Friday 12 April

*Alchemia and the Lead Manager reserve the right to amend any of these dates at its absolute discretion, subject to the Corporation Act 2001 (Cth), the ASX Listing Rules and any other applicable laws*

An investment in Alchemia will be accompanied by various risks and should be considered speculative in nature. Some of these risks are specific to the Company while others relate to investing in shares in general. It is for this reason that none of Alchemia nor its Directors or advisors provide any guarantee with respect to market value or that profitability will be achieved or dividends will be paid.

This section describes a range of risks associated with an investment in Alchemia. The risks outlined should not be considered exhaustive of the risks faced by Alchemia and its investors but these and other risks could have a material impact on the financial performance of the company and the value of the Shares offered under the Placement and the SPP.

Before making a decision, investors should consider each of the risks described in this section and Alchemia periodic and continuous disclosure announcements lodged with the ASX. Investors should carefully consider these factors in light of their investment objectives and financial circumstances. If investors are in any doubt regarding the terms and conditions of the capital raising they should seek professional advice from their stockbroker, solicitor, accountant, or other qualified professional financial advisor.

## GENERAL MARKET RISKS

Investors should be aware that the market price of the Company's securities may be influenced by a number of factors. General movements in local and international stock markets, exchange rates, prevailing economic conditions, investor sentiment and interest rates could all affect the market price of the Company's securities. These risks apply generally to any investment on the stock market. In addition to the general risks associated with investing in the stock market, there are risks specific to investing in any particular entity. Some risks may be outside Alchemia's control and not capable of mitigation. If in doubt about the general or specific risks associated with the Company's securities, you should seek advice from your professional advisers.

## COMPANY SPECIFIC RISKS

Below is an analysis of some of the specific business risks facing Alchemia in the conduct of its activities.

### Spin off of Alchemia Oncology may not occur

Although Alchemia intends to pursue a corporate transaction aimed at ensuring the value of its oncology and Fondaparinux assets are better recognised by the market, there is no guarantee that such a transaction will be able to be completed. Ultimately, whether such a transaction can proceed will depend on many factors outside of the control of Alchemia, such as market conditions, tax, legal and other regulatory issues. Depending on the ultimate structure of the transaction, shareholder approval for the transaction may also be required.

### Fondaparinux Risks

Following product approval of the fondaparinux ANDA by the US FDA in July 2011, the Company's receipts of profits under its collaboration, development and marketing agreement with DRL is dependent on a number of factors, including the ability of its manufacturing and marketing partner, DRL, to continue to manufacture fondaparinux on a commercial scale and in accordance with current Good Manufacturing Practices (GMP), prescribed by the FDA and other regulatory authorities, and to successfully continue commercialization of the product. There is no guarantee that Alchemia will generate sufficient revenues or that Alchemia will ever achieve profitability.

### Clinical development risk

Whilst clinical data to date are supportive of the development of HA-Irinotecan, it is possible that the Phase III clinical trial may not be successful, notwithstanding the success achieved in recruitment of the Phase III trial, and the Phase II trial for that reformulation. Clinical programs are costly, time consuming and of uncertain outcome. If such programs are not successful, the Company may invest substantial amounts of time and money without developing revenue-producing products. Clinical trials of promising products can take years, the duration depending among other factors on type, complexity, novelty and intended use of the product candidate. The Company may fail to successfully complete clinical trials and bring products to market for a number of reasons, including:

- as the Company enters a more extensive clinical program in several different diseases, the data generated in these studies may not be as compelling as the earlier results;
- unforeseen safety issues or side effects;
- performance of the control group of patients on the trial;
- variability in the number and types of patients available for each study, and difficulty in maintaining contact with patients after treatment, resulting in incomplete data;
- delays resulting from review board action at institutions assisting the Company with its clinical trials; and
- failure to obtain required regulatory approvals.

### **Phase III clinical trial of HA-Irinotecan may not be approved even if it achieves its primary endpoint**

Audeo Oncology's product candidates may not be approved even if they achieve the primary endpoints in Phase III clinical trials or registration trials. The FDA or non-US regulatory authorities may disagree with Audeo Oncology's trial design, clinical end points or interpretation of data from preclinical studies and clinical trials or may change requirements for the approval of Audeo Oncology's product candidates even after reviewing and providing comment on a protocol for a pivotal Phase III clinical trial that has the potential to result in FDA approval. For example, the FDA may require Audeo Oncology to undertake an additional trial with a different primary endpoint before or after approval. If this were to occur, Audeo Oncology may not be able to successfully commercialise this product, which could have a material adverse effect on Audeo Oncology. Because of the difficulty in reliably determining cancer progression based on imaging studies in cancer, the FDA's policy is to recommend that the primary endpoint for a cancer registration trial be OS whereas Audeo Oncology's Phase III clinical trial has PFS as its primary endpoint. Even if Audeo Oncology's pivotal Phase III clinical trial meets its PFS primary endpoint, an additional trial regarding OS could be required as either a pre-approval requirement or as a post marketing commitment should approval be granted based on PFS.

### **Competing patents**

Audeo Oncology is aware of two patents, both held by Pfizer, that could potentially impede its ability to fully commercialise HA-Irinotecan for the treatment of mCRC if it receives regulatory approval. These patents could also potentially impede Audeo Oncology's ability to fully commercialise HA-Irinotecan for the treatment of mCRC. Audeo Oncology may need to obtain a nonexclusive in-license to these two patents, both of which cover methods of treating cancer, including mCRC, involving administration of compounds used in the FOLFIRI chemotherapy regimen. There can be no assurance that Audeo Oncology will be successful in in-licensing these patents or, if it is successful in doing so, as to the amount of royalties it will be required to pay.

If Audeo Oncology fails to in-license these patents, it may limit commercialisation of its lead product candidate, HA-Irinotecan, if approved, which will likely have a material adverse effect on Audeo Oncology's business, results of operations and financial condition. Even if Audeo Oncology is able to obtain a non-exclusive in-license to these two patents, it may be required to pay substantial royalties, the term of the in-license may be limited and therefore require periodic renewals, the countries in which it is entitled to use the patents may be limited, and the other terms of the licence may be unfavourable to Audeo Oncology, any of which could have a material adverse effect on Audeo Oncology's business, results of operations and financial condition.

### **If the product candidates do not demonstrate superior efficacy in clinical trials, it is unlikely that they will be able to command pricing consistent with proprietary drugs**

Audeo Oncology believes that if HA-Irinotecan for the treatment of mCRC receives regulatory approval, it has the potential of commanding pricing consistent with proprietary drugs. However, this is dependent upon HA Irinotecan for mCRC demonstrating superior efficacy to a generic version of irinotecan in clinical trials, and there is no assurance that this will occur. If it does not occur, the pricing for HA-Irinotecan for the treatment of mCRC may be substantially lower than anticipated, which could have a material adverse effect on Audeo Oncology, its operating results or financial condition.

## **Intellectual property**

Alchemia pursues a policy of seeking to obtain patent protection for its inventions in Australia, the US, Europe, Japan and other selected countries. Alchemia also relies upon trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain its competitive position. To date, Alchemia has not threatened or instituted proceedings against any third party on patent or other proprietary rights nor, to the Company's knowledge, has any third party threatened or instituted proceedings against Alchemia. Alchemia maintains an active practice of filing patent applications. It is possible that patents may not be granted on pending applications made by Alchemia or parties that have licensed their inventions to Alchemia. Similarly, issued patents may not provide significant proprietary protection or commercial advantage or may be infringed or designed around by others. Since publication of inventions or discoveries in scientific or patent literature often lags behind actual invention or discovery, it is possible that the inventions covered by each of Alchemia's pending patent applications may not have dominant status in terms of date of invention. Alchemia's patents or patent applications may become involved in opposition proceedings instituted by third parties. If such proceedings were initiated against Alchemia's rights, the defence of such rights could involve substantial costs and the outcome cannot be anticipated. If patents are issued to other parties that contain valid claims that are interpreted to cover any of Alchemia's products, it is possible that Alchemia may not be able to obtain licenses to such patents at a reasonable cost, if at all, or may not be able to develop or obtain alternative technology. Competitors or potential competitors may have filed applications for, may have received patents covering, or may obtain additional patents and proprietary rights that may relate to, compounds or processes competitive with those of Alchemia. Alchemia also relies upon unpatented proprietary technology, and no assurance can be given that others will not independently develop substantially equivalent proprietary technology and techniques, or otherwise gain access to Alchemia's proprietary technology or disclose such technology, or that Alchemia can meaningfully protect its rights to its unpatented proprietary technology, secrets and know-how.

## **Dependence on collaborative relationships**

Alchemia may need to enter into collaborative agreements to develop and market its products from both its HyACT and VAST platforms. These agreements may require Alchemia's partners to undertake or fund certain research and development activities, make payments to Alchemia on achievement of certain milestones and pay royalties or make profit-sharing payments when and if a product is marketed. The success of Alchemia's collaborations may depend on the resources devoted to them by its industry partners. Collaborative agreements may be terminable by Alchemia's industry partners. Suspension or termination of collaborative agreements may have a material and adverse impact on Alchemia's business, financial condition and results of operations.

## **Commercialisation of products (other than fondaparinux)**

With respect to Alchemia's other technology platforms, there is no certainty that Alchemia will attract appropriate strategic partners or that any such partners will perform and meet commercialisation goals or make licensing payments.



## **Regulatory and institutional approvals**

The research, development, manufacture, marketing and sale of products using Alchemia's technology are subject to varying degrees of regulation by a number of government authorities, particularly the FDA. The regulatory approval process is inherently subject to risks, including that approval will not be granted, approval may be subject to unforeseen delay or subject to onerous conditions which may adversely impact upon the Company's ability to achieve its objectives. The development of biomedical therapies is inherently risky and subject to factors beyond the Company's control. The industry is highly regulated, subject to intense competition and reliant on the timely availability of clinical trial patients. Alchemia may be unable to secure necessary approvals from regulatory agencies and institutional bodies (clinics and hospitals) to conduct clinical trials. There is also no assurance that products developed using Alchemia's technology will prove to be safe and efficacious in clinical trials, or that the regulatory approval to manufacture and market its products will be received. Clinical trials might also potentially expose Alchemia to product liability claims in the event its products in development have unexpected effects on clinical subjects. Any of the products utilising Alchemia's technology may be shown to be unsafe, non efficacious, difficult or impossible to manufacture on a large scale, uneconomical to market, compete with superior products marketed by third parties or not be as attractive as alternative treatments.

## **Commercial manufacturing capability**

If there are delays or difficulties in connection with manufacture of products, or with packagers or distributors, market introduction and subsequent sales of Alchemia's products could be delayed.

## **Use of Net Proceeds of the Offer**

Alchemia has indicated the current anticipated use of net proceeds of the Placement and SPP proceeds earlier in this presentation. However, the Board will have total discretion in the allocation of the funds. A failure to apply the funds effectively could have an adverse impact on the business.

## **Dividends**

The ability of Alchemia to pay dividends in the future will depend on the success of the marketing of fondaparinux by its partner Dr Reddy's. In addition, considerations such as future capital requirements and the Company's financial position will impact the amount, timing and payment of any dividend or return of capital. There may also be factors outside of the Company's control which affect the ability of the Company to pay dividends and as such the Directors are unable to give any guarantee regarding the payment of dividends in the future.

## **Tax Risk**

Any change to the rate of company income tax in the jurisdictions in which Alchemia operates will impact financial performance, cash flows, the share price and shareholder returns. Any changes to the rates of income tax applying to individuals or trusts will also impact shareholder returns. Additionally, any change to the tax arrangements between Australia and other jurisdictions could adversely impact the Company's future earnings and the level of dividend franking.

## **Foreign exchange risk**

To the extent that Alchemia seeks to manufacture, distribute and commercialise its products in jurisdictions outside Australia, there is a likelihood that contractual arrangements will be in currencies other than Australian dollars. Alchemia may incur some revenue and expenditure in US dollars, Euro or other local currencies. The receipt and payment of proceeds in currencies other than Australian dollars could expose Alchemia to foreign exchange rate fluctuations.

## **Retention of key employees**

Because of the specialised nature of Alchemia's business, Alchemia is highly dependent upon qualified, scientific, technical and managerial personnel. There is significant competition for qualified personnel in Alchemia's business. Alchemia may not be able to attract and retain the qualified personnel necessary for the development of its business. The loss of the services of existing personnel, as well as the failure to recruit additional key scientific, technical, managerial and other personnel in a timely manner could harm Alchemia's research and development programs and its business.

## **Competition**

The biotechnology and pharmaceutical industries are intensely competitive and subject to rapid and significant technological change. Many of the drugs that Alchemia is attempting to develop will be competing with existing therapies and products. In some cases, such as fondaparinux, the Company is competing directly with identical products that are already available to customers. In addition, a number of companies, both in Australia and abroad, may be pursuing the development of products that target the same conditions that Alchemia is targeting. Some of these companies may have, or develop, technologies superior to Alchemia's own technology. In the field of cancer therapeutics Alchemia faces intense competition from major pharmaceutical companies and specialised biotechnology companies engaged in the development of product candidates and other therapeutic products. Additionally, many of Alchemia's competitors, including large pharmaceutical companies, have greater financial and human resources and more experience than does Alchemia. In addition, academic institutions, government agencies, and other public and private organisations conducting research may seek intellectual property protection with respect to potentially competitive products or technologies. These organisations may also establish exclusive collaborative or licensing relationships with Alchemia's competitors.

## **Alchemia may need to raise additional funds**

Although the Company does not expect to raise additional funds prior to cash receipts from Dr Reddy's arising from their marketing of fondaparinux in the US, the timing and amount of any future capital requirements will, if any, depend on a number of factors. Alchemia may not be able to raise funds as and when they are required. If Alchemia is unsuccessful in obtaining funds when they are required, the Company:

- may delay or eliminate its research and development activities, or other aspects of its business;
- may have to license or sell its technologies on unfavourable terms; and
- may need to scale down or cease operations further.

If Alchemia raises funds by issuing Shares or borrowing, the terms may not be favourable. The issue of New Shares may dilute the ownership of its Shareholders.

# Alchemia



## Appendix

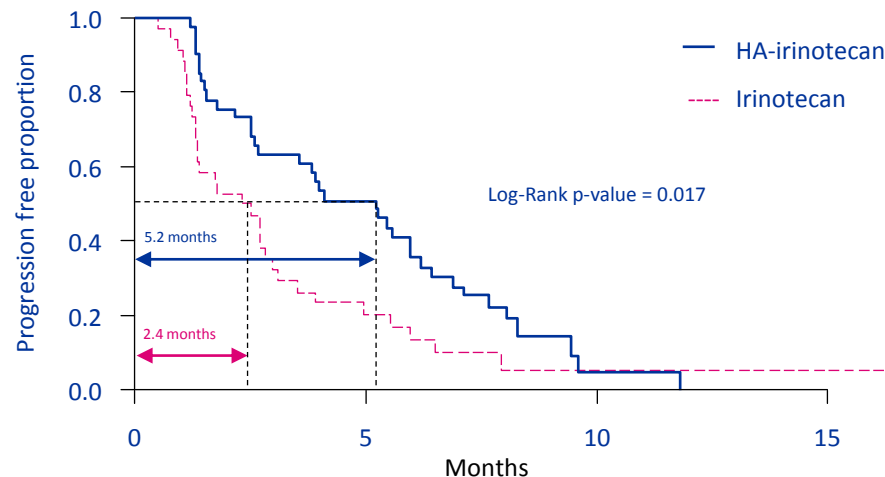
# HA-Irinotecan vs Irinotecan Phase II for Treatment of mCRC

## Design Highlights

- Trial included 76 patients in 2<sup>nd</sup> line metastatic colorectal cancer (mCRC)
- Patients were randomized to receive either Irinotecan alone or HA-Irinotecan
  - Up to 8 cycles of treatment
  - Each cycle containing 350 mg/m<sup>2</sup> Irinotecan administered every 21 days
- Primary endpoint – Safety (reduced diarrhoea)
- Secondary endpoints – Efficacy (DCR, PFS, TTF, OS)

# HA-Irinotecan vs Irinotecan Phase II for Treatment of mCRC

*Statistically significant increase in progression-free survival (PFS) of 5.2 vs. 2.4 months ( $p=0.017$ )*



## Other Key Results

- Hazard ratio for PFS of 0.46 ( $p=0.011$ )
- Increase in disease control rate measured by RECIST (76% vs. 46%,  $p=0.053$ )
- Trend towards increased overall survival (10.1 vs. 8 months) ( $p=0.196$ )
- Significantly longer time to treatment failure (4.0 months vs. 1.8 months) ( $p=0.007$ )
- HA-Irinotecan patients able to be treated for significantly more cycles (six vs. two) ( $p=0.005$ )
- Primary endpoint of reduced diarrhea was not achieved
- No significant increase in toxicity was observed