

A large, stylized, light gray letter 'A' is positioned on the left side of the slide, extending from the top to the bottom. It has a thick, blocky appearance with a slight shadow effect.

Alchemia Limited

ASX:ACL

October 2011

A thin, light gray horizontal arrow pointing to the right, located at the bottom of the slide.

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Overview



- Founded 1995, listed on ASX (ASX:ACL) Dec 2003
 - Small molecule biopharmaceutical company
 - 20 FTEs, M Cap \$58m, cash \$5.6m '06/11

- Marketed/late stage pipeline
 - Generic fondaparinux – approved in US July 2011
 - Launched in US by Dr Reddy's
 - Filing for approval in Europe early 2012
 - Phase III HA-Irinotecan trial in colorectal cancer
 - ...ruit
 - Phase II Irinotecan in Small Cell Lung Cancer (SCLC)
 - ...efficacy and impact on cancer stem cells.
 - ...sponsored – low cost to Alchemia
 - ...early indications of efficacy



Generic fondaparinux

A unique generic opportunity

Fondaparinux sodium - background



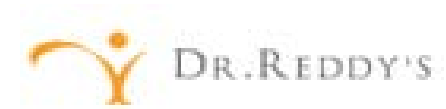
- Marketed by GSK as Arixtra™
 - US sales to May 2011 = \$340m +16% (IMS Data)
 - Global sales 2010 = \$461m +16%
 - Used for prevention and treatment of deep vein thrombosis (DVT)
 - Patents expired 2002
- Alchemia/Dr Reddy's first generic in US
 - Approved July 2011,
 - Apotex has launched GSK Authorized Generic*
- [REDACTED]ers to entry for other generics
 - [REDACTED]s is extremely challenging
 - [REDACTED]t synthesis is protected by issued patents
- [REDACTED]expired 2008
 - [REDACTED]res March 2012, filing in preparation

*An Authorized Generic is the branded product sold under agreement by a third party. It does not require approval by the FDA through the ANDA pathway

Fondaparinux commercialization



- Partnered worldwide with Dr Reddy's
 - Manufactured in India under license
 - 50% of N. American operating profits
 - Royalty on sales outside N. America
- First generics typically gain market share rapidly after launch
 - $\geq 30\%$ market share when competing with Authorized Generic*
 - Modest price discount to brand, generally $\sim 30\%$ with AG*
- Market share in line with expectations
- Sustainability



*Source: Federal Trades Commission report on Authorized Generics, 2009

Alchemia Oncology

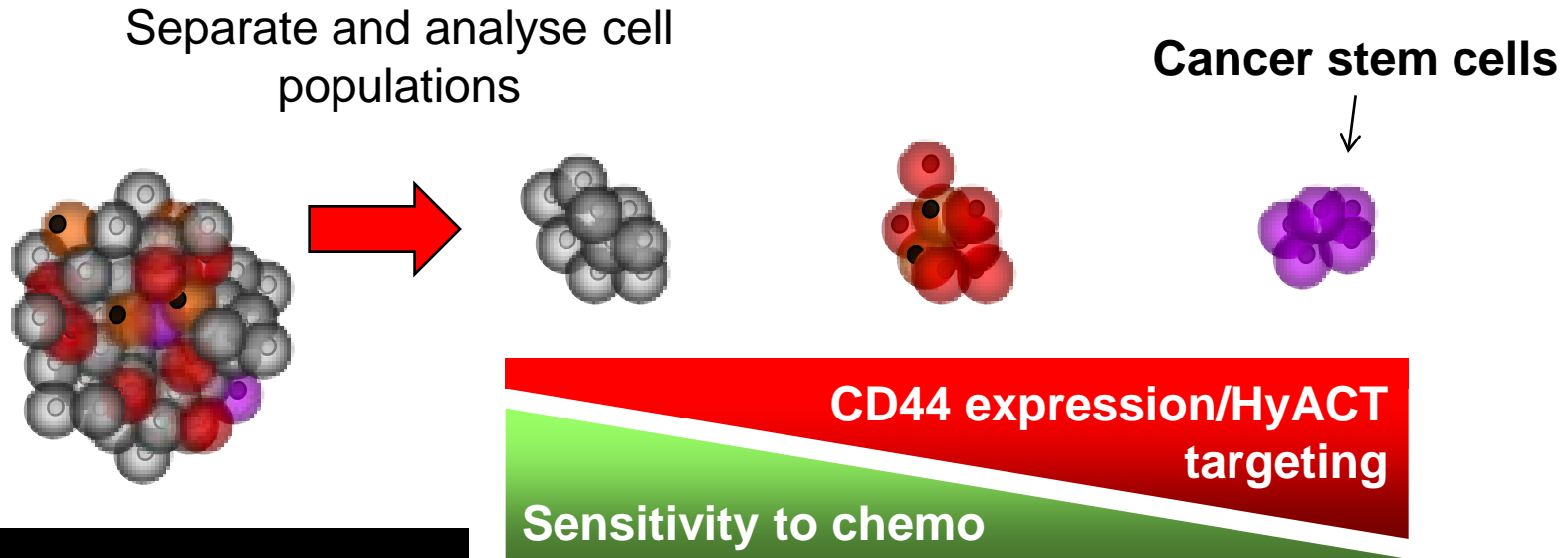
HyACT Platform
Targeting Cancer Stem Cells

HyACT Technology Platform



- HyACT – increasing the effectiveness of cancer drugs
- Clear, well established, receptor-based mechanism (CD44)
 - Enhanced delivery and uptake of drug by tumor cells
 - No change in toxicity profile of delivered drug
- Successful Phase II trial of HA-Irinotecan vs irinotecan in metastatic colorectal cancer (mCRC)
 - Progression Free Survival 20.8 vs 9.6 weeks, $p=0.017$
- mCRC to commence recruitment 2011
- Recruitment for irinotecan with considerable commercial potential
- Potential to enhance a broad range of drugs against CD44

Why target CD44?



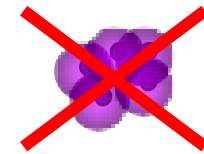
Chemotherapy is less able to kill cancer stem cells leading to treatment failures

Why target CD44?

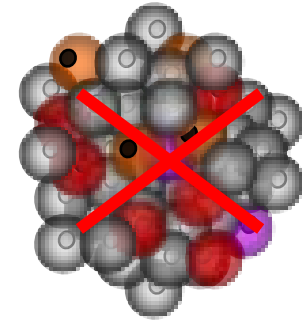
➤ CD44 expression in tumors associated with...

- Cancer stem cells
- Resistance to chemotherapy
- Likelihood of relapse
- Advanced, aggressive/metastatic cancers

Cancer stem cells



Resistance
Regrowth
Treatment failure



- Increases killing of CD44+ cells
- Potency of irinotecan against cancer stem cells*
- Delay of drugs in preclinical testing
- Prevent or delay tumor regrowth

*Presented AACR 2010

Phase III Trial Design



- HA-Irinotecan vs irinotecan as part of FOLFIRI drug combination
- Patients with 2nd/3rd line metastatic colorectal cancer
- Randomized 1:1, double-blinded
- Patient accrual over 12 months
 - 390 patients
 - 60 sites in total across 7 countries
- Primary endpoint is ≥ 6 week improvement in PFS*
- Secondary endpoints on the first 20 patients
- Data available after 350 'events' est. Q2 2013
- Study acceptable to FDA and EMA

* Progression Free Survival (PFS) = time to disease progression or patient death

Lung Cancer Phase II Study



- 40 patients with extensive Small Cell Lung Cancer (eSCLC)
 - Investigator Sponsored study at Monash Medical Centre
 - 1st line (treatment naïve)
 - Randomized to HA-Irinotecan or irinotecan
 - Safety and efficacy endpoints
 - Assess impact on cancer stem cells and circulating tumour cells
- Recruitment in September 2011
 - 10 patients have responded after 1st dose
 - 1 complete response (CR) one partial response (PR)

Potential conversion to HA-Irinotecan



Q17. If the planned pivotal trial was to meet or exceed the expected difference of 1.5 months in PFS between FOLF(HA)-IRI and FOLFIRI... what percent of your current irinotecan use would you like to convert to HA-Irinotecan?

| Regimen | % conversion to HA-Irinotecan |
|---|-------------------------------|
| FOLFIRI – 2 nd line* | 59.6% |
| FOLFIRI – 1 st Line | 55.6% |
| Irinotecan – 2 nd Line | 56.4% |
| FOLFIRI + Erbitux – 2 nd Line | 56.0% |
| FOLFIRI + Avastin – 1 st Line | 53.8% |
| Irinotecan + EGFR mAb – 2 nd /3 rd Line | 55.0% |

m survey

FOLFIRI in the second line setting

| Aggregate | Academic | Community | |
|-----------|----------|-----------|--|
| 11.6% | 4.2% | 14.1% | 100% conversion of irinotecan to HA-irinotecan |
| 8.4% | 8.3% | 8.5% | 90% conversion of irinotecan to HA-irinotecan |
| 15.8% | 12.5% | 16.9% | 80% conversion of irinotecan to HA-irinotecan |
| 12.6% | 12.5% | 12.7% | 70% conversion of irinotecan to HA-irinotecan |
| 6.3% | 4.2% | 7.0% | 60% conversion of irinotecan to HA-irinotecan |
| 16.8% | 20.8% | 15.5% | 50% conversion of irinotecan to HA-irinotecan |
| 4.2% | 8.3% | 2.8% | 40% conversion of irinotecan to HA-irinotecan |
| 11.6% | 20.8% | 8.5% | 30% conversion of irinotecan to HA-irinotecan |
| 7.4% | 4.2% | 8.5% | 20% conversion of irinotecan to HA-irinotecan |
| 1.1% | 0.0% | 1.4% | 10% conversion of irinotecan to HA-irinotecan |
| 4.2% | 4.2% | 4.2% | 0% conversion of irinotecan to HA-irinotecan |

Expected newsflow



- 2H 2011
 - Launch of fondaparinux in US by Dr Reddy's ✓
 - Initiation of Phase III trial (HA-irinotecan, mCRC)
 - Initiation of Phase II trial (HA-irinotecan, SCLC) ✓
- On-going
 - Quarterly sales of fondaparinux by Dr Reddy's
 - Phase III recruitment
 - Phase II recruitment
 - Results of partnership discussions
 - Further evaluation of VAST technology platform
 - Additional Investigator trials Phase I/II trials
 - Recruitment, Phase II, Phase III trial results
 - Royalties to Alchemia from Dr Reddy's
 - Phase II study on cancer stem cells (SCLC)