



ASX code — VHL
Market cap — \$7m
Cash (30/6/14) — \$3.8m

Share price (28/10/14) — \$0.008
52-week range — \$0.005-0.02
Shares outstanding — ~1b

BUSINESS OVERVIEW

- Virax (VHL) is developing a pipeline of oncology products to treat a range of cancers.
- Company recently acquired US oncology company AKTivate Therapeutics and its novel compound TCN-P (pending shareholder approval).
- Company acquired Pathway Oncology and its lead drug candidate GGTI-2418 in early 2014.
- Virax pursuing both assets in tandem.
- Virax has one of the most advanced clinical programs on ASX, with 5 mid-stage clinical trials running under two separate INDs over next 12 months.
- Oncology assets acquired from some of the most highly regarded cancer centres in the United States.
- Two clinical trials of TCN-P in breast and ovarian cancer are fully funded by US Government authorities - the National Cancer Institute and the Department of Defense.
- A Phase 1b/2a trial of TCN-P in ovarian cancer patients is currently recruiting patients at a US trial site.
- A Phase 2a trial of TCN-P in breast cancer patients is recruiting with 18 patients currently enrolled.
- Assets protected by robust IP portfolio.

INVESTMENT HIGHLIGHTS

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| <ul style="list-style-type: none">- Recent acquisition of US oncology company AKTivate Therapeutics and novel cancer compound TCN-P- Company will have two novel cancer compounds (TCN-P & GGTI-2418) in 5 mid-stage clinical trials over next 12 months | <ul style="list-style-type: none">- Second major acquisition in 2014, predominantly scrip deal- Current Phase Ib/IIa breast cancer trial & Phase Ib ovarian cancer trial fully funded by US Government authorities- Novel compounds synergistic and may work together |
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AKTivate THERAPEUTICS ACQUISITION

- Extremely attractive acquisition terms.
- AKTivate Therapeutics and lead asset TCN-P acquired in predominantly scrip deal.
- Virax to pay upfront fee of US\$300,000 as well as 234 million shares at 0.1 cent per share.
- 134 million shares will be paid upfront, with the remainder to be paid on clinical success of TCN-P in any one of three indications – breast or ovarian cancer or leukaemia.
- Majority consideration linked to the achievement of clinical and commercial milestones.
- Board regards acquisition of AKTivate Therapeutics and TCN-P as low risk with great potential upside.
- Two mid stage trials in breast (Phase 1b/2a) and ovarian cancer (Phase 1b) already fully funded through US Government grants.
- TCN-P secured by a robust intellectual property portfolio.

WHAT IS TCN-P?

- TCN-P is tricitriline phosphate monohydrate that blocks or inhibits a growth protein inside cancer cells called AKT, or Protein Kinase B.
- AKT plays an important role in cancer cell division and is over-expressed in a number of malignancies, including breast, ovarian and pancreatic cancers, as well as leukaemia.
- AKT pathway regarded a 'master switch' for many cancers.
- TCN-P is the first small molecule AKT inhibitor to be evaluated in clinical trial.
- All data to date suggests it has strong potential to disrupt tumor survival.
- May be used as a monotherapy or as an adjunctive treatment with existing therapies.
- Already attracting interest from big pharma.

TCN-P CLINICAL PROGRAM

- **Breast Cancer:** TCN-P is currently being trialled in a Phase 1b/2a breast cancer study on 36 patients at the prestigious Albert Einstein College of Medicine in New York. Eighteen patients have been enrolled to date.
- **Ovarian Cancer:** Recruitment for a Phase 1b trial of TCN-P in ovarian cancer patients has commenced at the Moffitt Cancer Center in Florida. Virax will target Phase 2 development 2016/17.
- **Leukaemia:** A third Phase 1 clinical study in leukaemia patients is expected to begin early next year at the Moffitt Cancer Center in Florida. Up to 16 patients will be enrolled with TCN-P to be evaluated in a dose-escalating study. TCN-P will be examined in combination with current standard of care cytarabine.

YALE ONCOLOGY ASSET GGTI-2418

- GGTI-2418 is a novel cancer drug with potential to treat multiple myeloma, breast and pancreatic cancers.
- Also has potential to treat other cancers as a monotherapy or in combination with current standards of care to improve patient outcomes.
- GGTI-2418 acquired by Virax as part of Pathway Oncology transaction earlier this year.
- GGTI-2418 to be pursued in tandem with TCN-P.
- Potent and unique mechanism of action, inducing cell death by down regulating several pivotal oncogenic and tumor survival pathways.
- GGTI-2418 animal studies demonstrated compound able to cause significant tumor regression in mouse models of breast cancer and multiple myeloma.
- Phase 1 safety study showed approximately 30% of patients with advanced stage, treatment refractory solid tumors had stable disease post GGTI-2418 therapy.
- Compound is a synthetic peptidomimetic inhibitor of cancer growth enzyme geranylgeranyl transferase 1 (GGTase 1) and also blocks the Ral and Rho circuits in cancer cells, which are critical to cancer cell survival.
- Tumors in placebo-treated mice grew to eight times their initial size after two weeks. Those mice administered GGTI-2418 exhibited dramatically slower tumor growth.

GGTI-2418 Clinical Program

- Phase 1b/2 trial of GGTI-2418 expected to begin 2015 at Moffitt Cancer Center in up to 54 patients with multiple myeloma.
- Additional 2015 Phase 1b/2a investigation expected to be launched at the Montefiore Einstein Centre for Cancer Care in New York to examine the drug in breast cancer patients in combination with breast cancer drug paclitaxel.

BOARD & MANAGEMENT

Dr Rob Crombie — Managing Director — Dr Crombie was appointed managing director in June 2014 after recently holding senior management roles at Arana Therapeutics and EvoGenix Limited. He was instrumental in driving Arana from an IPO through a \$318 million cash sale within five years. Commercially and scientifically he has an exemplary background, bringing valuable doctoral qualifications in molecular oncology and deep commercial biotechnology experience particularly in partnerships, M&A and licensing agreements with global pharmaceutical companies.

Paul Hopper — Executive Director — Paul Hopper has over 20 years experience in international public company markets primarily in the life sciences sectors, with a focus on startup and rapid growth companies, and has served as either Chairman, non-executive director or CEO, of fourteen public companies in the US, Australia, and Asia. Paul is an advisor at the Los Angeles-based Cappello Group where he is Head of the Life Sciences and Biotechnology Group responsible for mergers and acquisitions and capital raisings focusing on the biotechnology and life sciences sectors.

Dr Roland Toder — Non-executive Director — Dr Toder is a life science industry professional with international business experience. He has a track record of commercial accomplishments based on leadership and broad management skills. Dr Toder has a strong business background interfacing with technological expertise in the life sciences sector with a focus on human genetics, genomics, and proteomics. He has demonstrable skills in technology transfer and business development and has been the driver behind several large venture capital fundraisings and IPO's in Europe.

Dr Brendan de Kauwe — Non-executive Director — Dr de Kauwe earned a Bachelor of Science and Bachelor of Dental Surgery at the University of Western Australia. He also holds a Post Graduate Diploma in Applied Finance, majoring in Corporate Finance. Dr de Kauwe's extensive science and biomedical background with more than 10 years experience in the health sector, coupled with a finance backing, gives him an integral understanding in the evaluation of projects over a diverse range of sectors.

Scientific Advisory Board

Professor Joseph Sparano

New York based medical oncologist and clinical researcher Professor Joe Sparano is currently professor of medicine and women's health at the Albert Einstein College of Medicine in New York and the associate chairman for clinical research in the Department of Oncology at the Montefiore Medical Center. He is internationally regarded for his research on developing novel therapeutic approaches for breast cancer, lymphoma and HIV-associated cancers.

Professor Joshua Douglas

Multiple myeloma authority Professor Joshua Douglas heads up Clinical and Laboratory Haematology at the Sydney Cancer Centre and is a former Director of the Institute of Haematology at Royal Prince Alfred Hospital. He also chairs the Blood Clinical and Scientific Advisory Committee (BCSAC) of the NSW Department of Health and the National ARCBS ethics committee.

CONTACT

Dr Rob Crombie / Managing Director / +61 439 361 331 / Robert.Crombie@virax.com.au
www.virax.com.au