Shareholder Newsletter

20th February, 2014

Dear Shareholder

Just prior to Christmas we invited shareholders to view our new website www.calderahealth.co.nz and we hope you have had an opportunity to do so. Here we update you on some recent activities.

Capital Raising

Caldera has received significant support from investors since May 2013, when the current equity issue commenced. A total of $928,942.00 in new equity has been raised, including $300,000 from new shareholders. A Growth Project grant from Callaghan Innovation provided a further $249,473 over the same period.

The funds have been used to conduct the first of the two clinical studies contained in the Caldera plan presented to shareholders in May 2013. At that meeting we stated,

> "The first clinical study in progress is designed to:
>
> - Demonstrate our selected RNA biomarkers of prostate cancer are found in stored prostatectomy tissue;
> - Correlate the RNA biomarkers seen in each prostatectomy sample with its Gleason score;
>
> **Outcome**: provide credible data to potential partners."

We confirm this study is substantially complete as reported in the science progress report below. The outcome data will be presented to potential partners commencing next month.

We also outlined the objectives the objectives for the second study and we can now update on plans for this project. Prostate tissue, blood and urine samples will be collected from each Clinical Study 2 study participant in order to determine whether the RNA biomarkers detected in the prostate gland are the same as the RNA biomarkers found in blood and urine of the same individual. This will validate the use of blood and urine sampling. The study will commence in April/May 2014 and is expected to be complete in approximately 12 months. The process will include;

- Evaluating the RNA biomarker panel on all 3 sample materials;
- Assessing increased sample throughput using the V3 chemistry software update for our Illumina MiSeq instrument; and
- Refining our D'cipher analytical process incorporating further quality control and statistical tools.

Your directors agreed that prior to seeking a potential partner it would be prudent to have sufficient funds in hand to complete the Clinical Study 2. We have engaged NZ Development Trust Limited to scope and arrange equity funding of up to $1 million with a target of raising $750,000 for Caldera's prostate cancer diagnostic technology and working capital required in this year. The projected time

frame for such capital raising is a period of 6 months from mid-December 2013, with an intermediate target of raising 50% of the target amount within the first 3 months. NZDT is reporting regularly to directors on their progress and we will inform shareholders as soon as funds are committed.

Science Progress

We follow with interest the discussions in the United States between the regulators and physicians over the introduction of gene-based technologies into medicine as we near the end of the first of our Clinical Studies. Such discussions include how to validate clinically multiple biomarker sets in disease diagnostics.

Prior to the start of the Clinical Study 1 Caldera had refined its list prostate cancer RNA biomarkers from the 122 candidates obtained from mining microarray databases, and other data in the public domain, to the 88 RNA biomarkers that meet rigorous criteria for further testing. The study sought to compare expression levels of all 88 biomarkers in each prostate tissue donated from men who had previously had their prostate gland removed surgically (prostatectomy) as this is the most readily available tissue for us to use in such a study.

We can do this because after a prostatectomy in Auckland the tissue is sent to a medical histology laboratory where it is processed by fixing tissue pieces in formalin, and embedding the fixed tissue in paraffin wax blocks (FFPE). Thin slices are prepared for microscopic slices, which are then examined by a histopathologist who compiles a histology report including a Gleason score which reflects the stage of cancer progression. The slides and FFPE blocks are retained by the histology laboratory for twenty years, in case later review is required. If reviewed new sections can be cut from the blocks. The blocks have little other use, and most are discarded after twenty years, having never been recut.

The blocks are the property of the donor and stored on their behalf by the histopathology laboratory. We received Human Ethics approval to seek approval from suitable donors for our clinical studies and then sought the expert help of Dr Jonathan Zwi, a histopathologist in Auckland and Dr David Merrillees, Urology Clinic, 161 Gillies Avenue, Auckland to obtain consent from more than 45 males who have had a prostatectomy, to access and use their stored prostatectomy tissue for this study.

Dr Zwi then re-examined each donated FFPE block and carefully identified two areas from each block for us to examine. The first area contained the cancerous lesion. The second area was adjacent tissue that did not contain any sign of cancer for use as the healthy control. We determined how to extract RNA from such samples and these were each analysed using our RBAS technology to determine expression levels of the 88 biomarkers in both the cancerous and healthy samples from each donor.

An enormous amount of data is collected from each donor sample as a result of our RBAS (Replicon Biomarker Amplication Sequencing) process. To streamline the quantitative analysis of the data from each sample Caldera then engaged Biomatters Limited, a well-known company in Auckland, to develop novel computer software that translates our RBAS data into gene expression profiles for all 88 biomarkers in each healthy and cancerous tissue sample. We now have a computer app we call D'cipher up and running in beta testing and the Caldera team has begun the task of analysing the data from the RBAS process and assessing the data quality. As our process is novel there are no other tools that we can use to speed up this analysis. We are already gaining new insights and see that our gene-based data is telling us that are RNA biomarkers change with different forms prostate cancer disease that have scores ranging from 5 to 10.

This will lead us into Clinical Study 2 where we will examine fresh prostatectomy tissue, urine and blood from the same individual. Planning for this second study is underway as early indications are that our first study has been a success both in terms of validating technology platforms and in demonstrating a new diagnostic process for prostate cancer.

While D'cipher is the first generation software tool we have developed, as we move to Clinical Study 2, Biomatters will further refine the tool for clinical use and continue to supply support.

This is our part in the molecular diagnostic revolution that is somewhat like a tsunami in medicine, but being new, there are no short-cuts to rigorous testing on the pathway to marketing.

Kind regards,

Graham Watt
Managing Director
Caldera Health Limited