Biotech Daily

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Daily news on ASX-listed biotechnology companies

Dr Boreham's Crucible: Visioneering Technologies

By TIM BOREHAM

ASX code: VTI (Chess depositary interests)

Share price: 6.7 cents

Market cap: $26.7 million

Shares on issue: 399,135,152

Chief executive officer: Dr Stephen Snowdy

Board: Fred Schwarzer (chairman), Dr Snowdy, Christine Van Heek, Jean Franchi, Zita Peach, Tom Dooley

Financials (September quarter 2019): revenue $2.2 million (2018: $1.6 million, up 38%), loss of $4.5 million, cash balance $7.2 million, expected current quarter cash outflows $7.14 million.

Identifiable major holders: Charter Life Sciences 20.3%, Regal Funds Management 15.47%, Tiga Trading (Thorney Investments) 10.64%, Paul Cozzi 8.1%, Memphis Biomed Ventures 6%, Kinetic Investment Partners 5.29%, Renaissance Smaller Companies 5.17%

Ever since the advent of TV, worried parents have cautioned their kids that too much time in front of John Logie Baird's infernal device will make them go blind - a warning routinely shrugged off by the juvenile couch potatoes.

It seems that mother was right after all, but not because of any direct causal effect between screen gazing and retinal degeneration.

As Visioneering chief Dr Stephen Snowdy explains, too much screen use is making children myopic (short sighted) because they are not going outdoors and are being deprived of bright sunlight.

And - no - eating carrots doesn't help.

In Asia 80 to 90 percent of kids are near sighted - double the incidence of three decades ago - with the condition declared an epidemic in China and Singapore.

"It's become such an issue that Chinese elementary schools are putting in sky lights to try to get more light on these kids," Dr Snowdy says.

"As the eyes in a child are developing, exposure to bright light is extremely important. But in Asian nations that time outside is a thing of the past."

Even in sunny Australia, childhood myopia rates have doubled over the last three decades, from six percent to 12 percent.

"The near sightedness is not the problem," Dr Snowdy says. "It's just that as it gets worse, they are at greater risk of going blind."

Vision statement

The Atlanta, Georgia-based Visioneering sells disposable single-day contact lenses, which is no different to what the bigger global contacts makers do.

But what distinguishes Visioneering from its peers is its laser-like focus (excuse the pun) on two opposite conditions: childhood myopia and adult presbyopia.

Derived from 'presby' (Greek for old) and 'opia' (vision), presbyopia is the loss of ability to see things up close. "This happens in 98 percent of people over 45, it affects everybody," Dr Snowdy says.

Typically, he says, patients have worn contact lenses to see distance, but at 45 they lose ability to see up close.

These are two separate problems that need to be addressed, but current contacts and spectacles do not do that well.

"Patients will have a prescription for a multifocal contact lens and at the bottom of the prescription it says 'for use with reading glasses'," Dr Snowdy says of the US system.

"That's just stupid."

In the US, eight million US adults are already wearing contacts for distance use, which at an average $US400 ($590) per year implies a $US3.2 billion annual market.

Kids' myopia is worth another $US2 billion.

Eyes on the prize

With a doctorate in nerve sciences and a venture capitalist, Dr Snowdy founded Visioneering in 2008.

The company raised around $15 million ahead of listing on the ASX in 2017, when it gathered $25 million. A further $13 million has been raised since.

The company won US Food and Drug Administration (510k) clearance for its Naturalvue lenses in 2013. Since then the lenses have been approved in Europe, Australia, New Zealand, Hong Kong and - this month - Singapore.

Regulators in Canada - which has a big Asian population - are expected to approve the lenses “any day now”.

In the September quarter, the company inked a deal with Menicon, Japan’s biggest contact lens maker, to provide its myopia lenses for Menicon on a white-label basis.

Menicon is launching in Europe under a new brand called Bloom and has placed an initial $US500,000 order with Visioneering.

This month rival lens maker Cooper Vision won FDA approval for its child multifocals to halt myopia - the first specific US consent for that indication.

Unusually, we were informed of this development via a Visioneering disclosure to the ASX.

A free kick to the opposition perhaps, but according to Visioneering, the approval helps clarify its own regulatory path to win consent for the indication of halting - rather than just treating - childhood myopia.

Science-y stuff

What causes short and long sightedness?

Dr Snowdy is glad you asked.

Within the peepers, lenses collect light bouncing off the objects you are looking at and converge these rays to the back of the eye.

Two lenses shape this light - the cornea at the front of the eye and just behind it the “crystalline” lens.

The crystalline lens is connected to muscles and will change shape according to how close the object is.

The nearer an object is to your face, the higher the angles the light rays enter your eye. The crystalline lens detects how far it needs to bend the light rays to converge on the retina.

If the convergence is not spot on, the image is blurred.

As people age the muscles on the crystalline lens weaken and they can't bend the light enough, so near objects are blurred.

Reading glasses have 'plus' power, which increases the bend in the light to move convergence point forward to the retina.

Conversely, kids become myopic because from front to back their eyeballs have grown too long.

As a result, the convergence point overshoots the retina. So called 'minus power' lenses address the problem by 'unbending' the light.

The Box Brownie effect

The problem is that current lenses don't correct distance and near vision at the same time.

To address this, Visioneering's was inspired by the "aperture effect" - a photographic principle for more than a century.

At his investor prezzos, Dr Snowdy's well known parlor game is to have the participants peer at printed material through a hole on a black card.

At very near distance, the otherwise blurred wording becomes clear, because the eye is blocking out light rays that enter at very steep angles.

"We call it induced aperture and it's a principle we use in our lens," Dr Snowdy says.

In other words, unfocused light rays are blocked while the focused ones pass through the aperture.

Sizing up the rivals

Visioneering doesn't exactly have the field to itself, given there are five big contact lens companies competing globally: Alcon, Bausch + Lomb, Johnson & Johnson, Essilor and the aforementioned Cooper Vision.

They all sell around $US1 billion of contacts annually, "but no-one can do our particular shape of optics because it's our patent" Dr Snowdy says.

With paediatric myopia, an old anti-nerve agent drug called atropine has been used to treat the condition, with some efficacy.

There's a big problem though: locally, the Therapeutic Goods Administration banned the product after one compounding chemist erroneously mixed the solution at 1.0 percent strength rather than the intended 0.01 percent: 100 times the intended volume.

Oops!

According to the Australian Journal of Pharmacy, using full-strength atropine can result in "extreme discomfort" and an aversion to bright light.

"It was very bad juju for the kids who took it," Dr Snowdy says.

Another method called orthokeratology involves the kid wearing a hard lens at night, which reshapes the eyeball.

This works in 60 percent of cases," but by mid-afternoon they can't see anything again."

Ok, so it doesn't work that well after all.

Financials and performance

Visioneering's revenue grew from $US200,000 ($A295,500) in 2016 to $US1 million in 2017 and then tripled to $US3.3 million in calendar 2018.

September quarter revenues grew 39 percent to $US1.5 million, year-on-year. While this sounds jolly enough, growth was off the pace relative to market expectations.

In mid-October, management warned that calendar 2019 revenue would come in at $US5.7million to $US5.9 million, which will still be 73 to 79 percent higher but 10 percent short of previous guidance.

The company burnt $US3.06 million of cash in the September quarter, compared with $US2.83 million in the June quarter. The company expects $US4.83 million of outflows in the current quarter.

These numbers prompted the ASX to query whether the company has the funds to last the distance, given its September cash balance of $US4.83 million.

The company replied that it was "actively seeking funding through a number of channels and believes it will be successful in securing additional capital in the (December) quarter."

Mid-year the company raised circa $11 million: $5.8 million from a rights issue and a $4.3 million placement and convertible notes issue to Thorney Investments.

Dr Snowdy says the company's cash burn is expected to moderate in 2021, but he adds: "We have a long way to go to break even. We will have to raise more money and that is another reason why the share price languishes."

Visioneering shares have traded between 55 cents in early 2018 and 4.2 cents in early June this year.

Dr Boreham's diagnosis:

Visioneering clearly is most excited about myopia and is encouraged - rather than threatened - by the big contact lens companies talking about the problem.

"This year has been a watershed year for myopia," Dr Snowdy says.

He notes that Alcon, which demerged from Novartis and listed on the Swiss and New York bourses in April - has specified myopia as a key growth pillar.

We're not quite sure what the US approval for Cooper Vision really means.

Five companies have formed the Global Myopia Awareness Coalition, with Visioneering as the founding member.

Two years ago, Dr Snowdy says, the company could have "all gone to goose eggs" but now has a clear development path.

The way we view it, Visioneering's practical challenge is to forge meaningful sales from a modest resource base.

If momentum continues, the company is likely to be acquired by one of the aforementioned contacts rivals, or one of the private equity players interested in the sector.

We shall see.

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. He does possess about 12 sets of glasses but often can't find any because he's not wearing his glasses.