

# Zelira Therapeutics (ZLD)

Initiation - Undiscovered growth story  
Autism and Insomnia drug launches imminent

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## Recommendation

**Buy (High Risk)**

<b>Risk Rating</b>	<b>High</b>
<b>12-mth Target Price (AUD)</b>	<b>\$0.14</b>
Share Price (AUD)	\$0.052
12-mth Price Range	\$0.022 - \$0.091
Forecast 12-mth Capital Growth	169%
Forecast 12-mth Dividend Yield	0.0%
<b>12-mth Total Shareholder Return</b>	<b>169%</b>
Market cap (\$m)	59.4 (105.7 f/d)
Net debt (net cash) (\$m)(Jun 20e)	(1.9) ((3.1) f/d)
Enterprise Value (\$m)	57.5 (102.6 f/d)
Gearing (Net Debt/ Equity)	N/a – Net Cash
Shares on Issue (m)	1,142.3 (2,032.6 f/d)
Options / Perf rights (m)	890.3
Sector	Pharmaceuticals & Bio
Average Daily Value Traded (\$)	\$76,200
ASX 300 Weight	n/a

## Financial Forecasts & Valuation Metrics

Years ending June \$m	20(e)	21(e)	22(e)	23(e)	24(e)
Sales revenue	0.2	4.8	24.4	40.6	59.7
Sales growth	nm	2301%	408%	66%	47%
Operating costs (ex D&A)	-6.9	-7.9	-8.2	-8.6	-9.0
EBITDA	-5.7	-5.0	5.7	16.2	30.3
NPAT (reported)	-5.7	-4.9	5.8	16.3	30.4
NPAT (adjusted)	-5.6	-4.9	5.8	16.3	30.4
EPS (adjusted)	-0.3	-0.2	0.3	0.8	1.5
EPS growth	nm	nm	nm	large	86%
DPS	0.0	0.0	0.0	0.0	0.4
OCF /share	-0.4	-0.3	0.3	0.8	1.5
Valuation					
P/E (F/D)	-16.7x	-21.0x	17.7x	6.3x	3.4x
P / OCF	-14.2x	-16.8x	20.2x	6.7x	3.5x
P / Book	1.4x	1.5x	2.2x	1.6x	1.1x
EV / Ebitda (F/D)	-15.9x	-19.5x	15.8x	4.6x	1.5x
EV / Sales (F/D)	450.5x	20.1x	3.7x	1.8x	0.7x
Cash from Operations	-6.6	-6.1	5.1	15.3	29.1
Net Cash (Net Debt)	1.9	4.6	11.3	27.1	56.7
Enterprise Value	90.1	96.6	89.8	74.1	44.4

Source: Sequoia estimates

## ZLD SHARE PRICE PERFORMANCE



## Summary

Zelira Therapeutics Ltd (ZLD) is a pharmaceutical grade drug developer focussed on applying natural cannabis plant derived drug compounds to large strategically chosen diseases backed by clinical research and real world experience. Special access schemes for medicinal cannabis (MC) in Australia and overseas facilitate faster market entry than traditional drug development. The naturally derived compounds have significantly lower side effects and safety issues than existing chemical derived drugs providing ZLD with large opportunities to disrupt traditional pharmaceutical products in certain targeted segments.

ZLD will soon launch naturally derived MC-based therapeutic drugs for Autism in the USA (first up-front licence fee already received for Louisiana) and Insomnia in Australia, with a full international roll-out for both drugs to follow in FY21.

### Merger with ILERA a potential “company maker”

In December 2019, ZLD merged with Philadelphia-based ILERA Therapeutics (ILTS) in a 50/50 all scrip deal which we think will prove to be a company maker for the merged group. ILTS was founded by a group of 6 experienced pharmaceutical industry managers who created and ran GSK Ventures for Glaxo (2000 to 2004) before creating their own pharmaceutical private equity firm (PIPV Capital). ILERA Healthcare (ILHC)(sold to TerrAscend Corp in September 2019 for US\$125m + a \$100m earn-out, and ILTS were both founded by this team just 3 years ago.

ILTS owned the worldwide rights (excluding Pennsylvania) to 2 child autism therapeutic drugs called “HOPE” which were launched in May 2019 in Pennsylvania and have already achieved multi-million dollar sales in that state for TerrAscend Corp. ZLD plans to licence the drug to local state-based pharmaceutical companies in the 34 US states which have legal special access schemes, and internationally. Louisiana (4.6m popln) is the first state to be licenced with the launch expected soon. ZLD has received an up-front licence fee and will receive on-going double-digit royalties.

### ZLT-101 Insomnia drug preparing for launch

Following positive trial results of its ZLT-101 drug for chronic insomnia conducted by the University of WA, ZLD is preparing to launch the drug mid-year backed by a full scientific dossier and safety data to assist prescribing doctors. The initial launch will be in Australia under the TGA special access scheme with Germany, USA and UK expected to follow.

### BUY Recommendation & 12-mth PT \$0.14

Our forecasts are based on our estimates of the market potential for Aust, USA and Germany for the initial 3 drugs only. ZLD has a pipeline of further drugs under development not in our forecasts. Our valuation range is \$0.10 to \$0.18 based on conservative and optimistic scenario DCF analysis. We will refine our forecasts as ZLD announcements progress. We initiate coverage with a STRONG BUY recommendation.

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## Introduction

We believe Zelira Therapeutics Ltd (ZLD) is one of the most exciting stocks in the Australian medicinal cannabis sector. It is also one of the most exciting emerging companies that we cover.

In December, Zelda Therapeutics merged in a 50/50 all scrip merger with US company ILERA Therapeutics to form Zelira Therapeutics Ltd. This has doubled the size of the company and injected a highly experienced US-based management team led by new ZLD Chairman, Mr Osagie Imasogie. Mr Imasogie is an IP attorney by background, and has 36 years of experience in IP law and the pharmaceutical industry with senior positions with DuPont Merck, Endo Pharmaceuticals and GlaxoSmithKline.

With fellow ZLD director Lisa Gray, they conceived and established GSK Ventures, an IP-based venture capital firm set up to monetise intellectual property that GSK owned but did not want to develop further. They completed over 30 transactions in 3 years for GSK Ventures, before setting up their own firm – PIPV Capital which they have operated successfully for 19 years (and continuing). They created from scratch ILERA Healthcare, a vertically integrated medicinal cannabis grower and branded pharmaceutical company which became profitable within 2 years and was sold for US\$125-225m (a floor price of US\$125m and a ceiling of US\$225m based on a 2-yr earn-out). The purchaser (TerrAscend Corp, TER.CD) has just confirmed that the maximum earn-out is likely to be payable. (Please refer Appendix 3 for further analysis and comment).

The same team also created ILERA Therapeutics which was at an earlier stage, and has merged with Zelda (ZLD) to form Zelira Therapeutics.

This US team supplements the Australian team which will primary focus on launching medicinal cannabis based pharmaceutical products in Australia, Germany and the UK.

ZLD has no operating revenue (yet). It is about to launch HOPE™ (for autism spectrum disorder) in the US commencing in Louisiana, and ZENIVOL™ (for chronic insomnia) in Australia backed by a full clinical dossier from a successful clinical trial conducted by Professor Peter Eastwood at the University of WA - Centre for Sleep Studies. A number of other launches are planned as shown below.

We initiate research coverage on ZLD with a Strong Buy recommendation and a 12-month price target of \$0.14, which implies upside of 169%.

ZLD: New Products / Country / State launches planned				
	USA	Australia	Germany	UK
Population (millions)	330,000,000	25,500,000	83,500,000	66,000,000
No. of Registered medicinal cannabis users	4,000,000	11,000	65,000	Small, NaN
ZLD - Current products in market	0	0	0	0
<b>1. Autism "HOPE 1 &amp; HOPE 2"</b>				
0. Launched May 2019 by ILERA Healthcare in Pennsylvania (now owned by TerraNova). ZLD owns the IP and worldwide rights (ex- Pennsylvania)	● by TER.CD			
<b>a. Launch in Louisiana by ZLD imminent</b>	○ Q3 2020			
b. ANO State (We forecast 5 more US states to be signed and launched in FY2020)	○ TBA			
c. ANO State	○ TBA			
d. ANO State	○ TBA			
e. ANO State	○ TBA			
f. ANO State	○ TBA			
<b>g. Australia - Launch Q3 2020. Distributor: Health House (per 9/7/20 presentation)</b>		○ Q3 2020		
h. Germany			○ Q1 2021	○ TBA
<b>2. Chronic Insomnia " Zenivol"</b>				
<b>a. Australia - Launch Q3 2020. Distributor: Health House (per 9/7/20 presentation)</b>		○ Q3 2020		
b. Germany -				
c. USA - Will need to be launched state by state	○ TBA		○ TBA	○ TBA
<b>3. Aged Disorder (have previously mentioned Parkinsons Foundation, USA)</b>				
a. Expect to launch in USA first; Global potential	○ Q4 2020	○ Q2 2021	○ TBA	○ TBA
<b>4. Dermatology (OTC products)</b>				
a. Expect to launch in USA first, then UK. (Aust depends on rescheduling of C	○ Q2 2021	○ TBA	○ TBA	○ Q3 2021
<b>5. Peripheral Arterial Disease (PAD)</b>				
a. Expect to launch in USA first; Global potential	○ TBA	○ TBA	○ TBA	○ TBA
<b>6. Targeted Pain / Gastro-intestinal</b>				
a. Expect to launch in Australia first	○ TBA	○ TBA	○ TBA	○ TBA
Others ? Opiod reduction, anxiety, skin disease, cancer & cancer diagnostics				
<b>ZLD - Products in market at 31/12/21 (est)</b>	<b>≥ 3</b>	<b>≥ 3</b>	<b>≥ 1</b>	<b>≥ 1</b>

Source: Various ZLD announcements & presentations; our estimates from discussions with management

## Company History

Zelira Therapeutics (ZLD) is an emerging international medicinal cannabis ("MC") company based and listed in Australia but with strong historical foundations in the USA.

The company was originally founded as Gleneagle Gold Limited (GLN) in 2003. Today's business and company structure was created from two acquisitions:

1. Acquisition of private Australian company Zelda Therapeutics Pty Ltd which was established by the Founding Directors Mara Gordon, Harry Karelis, Stewart Washer and Jason Peterson. California-based Zelda Therapeutics Pty Ltd (Zelda) for \$8m in an all-scrip deal. This was acquired in a reverse takeover of Gleneagle Gold completed in November 2016. \$10m of new capital was raised in the reverse takeover process.
2. 50 /50 scrip merger with Pennsylvania-based ILERA Therapeutics (ILTS) was announced in October 2019 and completed January 2020. Consideration for this transaction was \$33.5m as follows. A \$4.5m placement at \$0.05 per share was completed in February following this acquisition.

ZLD: Acquisition of ILERA Therapeutics (ILTS) (Completed 2/12/19)	No. of Shares (m)	Consideration A\$m	Price Per Share	Likelihood Assessed by Directors
a. Fully paid ordinary shares (issued 2/1/20)	113.6	7.7	\$ 0.068	N/a
b. Class A Performance Rights (hurdle: US\$1.0m of sales with 12 months of revenue)	362.6	23.3	\$ 0.064	95%
c. Class A Performance Rights (hurdle: US\$2.5m of sales with 12 months of revenue)	362.6	2.5	\$ 0.007	10%
<b>Assessed Consideration</b>	<b>838.8</b>	<b>33.5</b>		
Fair value of assets acquired		2.7		
Goodwill arising on acquisition		30.7		
	<b>ZLD Existing</b>	<b>ILTS Acquisition</b>	<b>Combined</b>	
Shares on issue prior	758.3	113.6	871.9	
Options on issue	82.6		82.6	
Class A Performance Rights - consideration		362.6	362.6	
Class B Performance Rights - consideration		362.6	362.6	
<b>Sub-total</b>		<b>838.8</b>		
Class A Performance Rights - directors incentives		18.8	18.8	
Class B Performance Rights - directors incentives		18.8	18.8	
<b>Total</b>	<b>840.9</b>	<b>876.3</b>	<b>1717.3</b>	

Source: ZLD announcements; Notice of AGM dated 25/10/19

### Zelda Therapeutics (now Zelira) Background

Zelda was co-founded by Ms Mara Gordon, a pioneer in the US medicinal cannabis (“MC”) industry, well-known speaker at US and international MC conferences and founder of private Californian business “Aunt Zelda’s” (and three Australian directors – see further below). California was the first US state to legalise MC in 1996. Please refer to: <https://auntzeldas.org/>. The strategy was for Zelda to fund clinical trials to leverage extensive but anecdotal patient data and formulations accumulated by Aunt Zelda’s, to demonstrate the effectiveness of MC and to upgrade this intellectual property to clinical / pharmaceutical / regulatory standard. Formulations targeting a range of disorders including insomnia, cancer and a specific topical application were included. The insomnia product had its origins here.



Mara Gordon – pictured second from left

ZLD conducted a 1 for 5 share consolidation (Oct 2016), a \$4.0m capital raising at 2.5 cents per share (Nov 2016), reconstituted board, and in December 2016 GLD changed its name to Zelda Therapeutics Ltd (ASX code ZLD).

The new board comprised Mr Harry Karelis (Chairman), Mr Jason Peterson, Dr Stewart Washer and Ms Mara Gordon as non-executive directors. GLN directors resigned (Wayne Loxton, Chairman, Ian Love and Leon Davies).

Dr Richard Hopkins was appointed as CEO in July 2018 (Previously CEO of PharmAust Ltd (March 2017- May 2018, PAA.AX) and CEO of Phylogica Ltd (2013-2016, PYC.AX) which he co-founded.

## Ilera Therapeutics (ILTS) merger

In October 2019 ZLD announced plans to merge with Philadelphia-based ILERA Therapeutics (ILTS) in a 50/50 all scrip deal. The merger was completed in December 2019, with ZLD scrip and performance shares being issued as consideration on 2 January 2020.

ILTS was founded by a group of six business executives including three experienced pharmaceutical industry managers from GlaxoSmithKline who created and ran GSK Ventures (Glaxo Smith Kline Ventures) (2000 to 2004) before creating their own pharmaceutical venture capital firm Phoenix IP Ventures (now called PIPV Capital – refer: <http://phoenixipv.com/team>). ILTS was a spin out from ILERA Healthcare (ILHC) when the latter was sold to TerrAscend Corp (TER.CD, Market cap CAD\$235m) in September 2019 for a floor of US\$125m and possible maximum of US\$225m (A\$180 – 320m) after just two years of operation. TER announced its March quarterly result that the maximum consideration and earn-out is likely to be payable. TER increased its provision for contingent consideration by C\$62.6m. Obviously ILHC is performing very well for them. ILHC and ILTS were both founded by this team.

Key features of the deal:

1. **New well-credentialed US-based senior management team to join ZLD** - Mr Osagie Imasogie (proposed US-based Chairman), Mr Oludare Odumosu (proposed CEO and Managing Director for the US) and Ms Lisa Gray (proposed US-based NED), all with significant industry experience with GlaxoSmithKline and others, and a track record of creating value with IP-based deals with GSK Ventures and PIPV. The new ZLD board will comprise these 3 executives from ILTS and 3 from ZLD.
2. **No revenue currently.**
3. **Lead product ready to go – “HOPE 1 & 2 / Autism”.** ILTS owns two proprietary MC-based drugs for autism patients launched 12 months ago in Pennsylvania USA under the “HOPE” brand by sister company at that time - Ilera Healthcare (ILHC). ILHC was granted a perpetual licence for Pennsylvania only when it was sold to TerrAscend Corp in 2019 for a floor of US\$125m and a ceiling of US\$225 (based on a 2-year earn-out). We understand the launch of these drugs in May 2019 has gone very well. TerrAscend said in its March quarterly accounts that it is likely that the maximum earn-out will be payable. This augurs very well for Louisiana. The first US state to launch for ZLD will be Louisiana where ILTS has a partnership agreement with Ilera Hollistic, one of only two companies authorised to produce and process MC in that state. (Refer: <https://ilerahollistichealthcare.com/about-us> . ZLD will seek to establish similar licencing and manufacturing deals for the other 34 states where MC access is permitted, as well as overseas markets.
4. **Important Advocacy support** - The HOPE franchise has received support from organisations such as “HOPE Grows for Autism”, a leading autism education and advocacy group founded by parents based in Pennsylvania. The association has over 700 families as members.
5. **Continuing partnership with Ilera Healthcare (ILHC)** (now owned by TerrAscend Corp) that will provide ZLD with on-going potential access to the Pennsylvania MC market and its 130,000 registered MC patients (important for trials and future non-Autism products).
6. **Third party trials ongoing for 5 other proprietary products** under development by ILTS targeting sleep, pain, anxiety, calmness and focus. In addition, ILTS worked with ILHC/ TerrAscend on an Observational Autism Trial and a pharmacokinetic study for HOPE, that provided further “real world” evidence and clinical evidence to support doctors and patients using MC products under various MC special access schemes in the USA, Australia and potentially other jurisdictions. This study was just published as a White Paper and we understand has been well received.

- ZLD also has a collaboration with Dr Karyn Grossman** that is developing high quality CBD and cannabis-based dermatology products. Dr Karen is an internationally renowned, Harvard trained cosmetic dermatologist. Grossman Dermatology has operated for 25 years and has operations in Santa Monica California and New York City. We understand the agreement is now an 80%/20% split (ZLD / Karen).

## DR. GROSSMAN



Dr. Karyn Grossman is an internationally renowned, board certified cosmetic dermatologist with a well-known celebrity following. Trained at Harvard Medical School, she's considered a key opinion leader in all fields of esthetics and often works on its frontlines to help develop new technologies, fillers and devices.

She's also careful about what she does, and only performs procedures she'd use on herself and her family.

Her unique point of view clearly strikes a chord with her devoted patients, who seek out her expertise and focused calm, and love the highly personalized attention she gives them.

Source: <https://grossmandermatology.com/>.

## Positive Factors / Reasons to Buy

- Strategic acquisition doubles company size and brings motivated new US-based senior management team.** The December 2019 merger with Philadelphia-based ILERA Therapeutics (ILTS) could be a company making deal for the merged group. ILTS was founded by a group of six business executives including three experienced pharmaceutical industry managers at GlaxoSmithKline who conceived and created GSK Ventures for Glaxo (2000 to 2004), transacting over 30 IP-based deals before creating their own pharmaceutical venture capital firm - PIPV 19 years ago.

  - **Osagie Imasogie (new ZLD Chairman)** brings 36 years of pharma industry and IP experience at PIPV, GSK Ventures, GSK, Endo Pharmaceuticals, Du Pont Merck, Genesis Corp (founder), Price Waterhouse Partner, and practicing US attorney.
  - **Lisa Gray (new NED)** brings 30 years of experience at PIPV (19 yrs, GSK Ventures (3 yrs), GSK (8 yrs), Coopers & Lybrand (3 yrs).
  - **Oludare Odumosu (CEO – USA)** brings 15 years’ experience at PIPV investee companies Ilera Healthcare (COO), Iroko Pharmaceuticals (8 yrs), and Loma Linda University School of Public Health. These new directors have worked successfully together for 19+19+8 years. ZLD inherits their considerable knowledge, contacts and proven business building strategies with a nascent business in ILTS ready to launch.
- “HOPE” Autism therapy drugs about to launch in first US state for ZLD - Louisiana.** Louisiana is a State of 4.7m people (3.6m adults), so about 36% the size of Pennsylvania where the HOPE drug has already been selling very well for Ilera Healthcare/ TerrAscend Corp, and contributing to triggering the maximum earn-out payment from the buyer. This augurs very well for ZLD. We expect to see significant early progress in this second state for HOPE and the first State for ZLD. MC products cannot cross state borders and ZLD is partnered with the larger of just 2 producers in that state so is already in “pole position”. Strong patient acceptance in Louisiana should validate both the product, and ZLD’s US capital-light, licencing-based business model.



Source: Ilera Healthcare website; Bottles are 30mls

- HOPE Autism licencing deals expected in up to 34 more US States (TAM 4m patients).** ZLD has worldwide rights (ex-Pennsylvania) to these already proven products. ZLD has already received an up-front licence fee of **A\$234k** (refer the March 4C). There are 34 more US States which we believe will allow patients access to medicinal cannabis to help treat autism (representing 250m or 76% of the US 330m population). Assuming a prevalence rate of 1.0% in the adult population and 1.5% in the <18 population, we estimate a TAM (total addressable market) of 4.0m patients for these 34 US states. Because MC is not legal at the Federal level, MC product cannot cross state borders. So ZLD plans to licence separate processor / distributors in each permissible state. National deals are not possible under current Federal laws in the US. So potentially ZLD will conclude up to 34 more State by State agreements earning up-fronts of ~A\$7-14m (assuming A\$2-400k per state). Product sales could be A\$34-68m (A\$1-2m per State x 34) generating royalties of \$3.4m to \$6.8m pa.



4. **Grass roots origins + support from Advocacy groups** - The HOPE franchise has received support from organisations such as “HOPE Grows for Autism”, a leading parent-founded autism advocacy group based in Pennsylvania with over 700 families as members. ZLD’s formulations typically come from surveying and asking the real life patients what they have tried, what seems to work, and what doesn’t work, and then to develop and build the final formulations based on that and the hard science applied by its Ph.D. formulators. The clinical evidence comes after the real world evidence. This simple strategy puts ZLD years ahead of traditional pharma companies, and is only possible because of the unique safety profile that natural MC possesses (it is an organic “weed” after all), and the special access schemes applicable in many countries. From this viewpoint, it is no surprise that ZLD’s products achieve high levels of efficacy (i.e. they generally work), and that support from local advocacy groups (including many families desperate for an improvement) is readily forthcoming. ZLD describes this as its “Launch, Learn & Develop” model. We expect that the authenticity of the “HOPE” product and strong user support and word of mouth already seen in Pennsylvania will also be achieved in Louisiana and other target states and countries to come. Strong patient and user group advocacy then becomes a low cost marketing benefit to ZLD.
5. **New Insomnia drug (Zenivol) to launch in Australia this quarter (Q3) following excellent clinical trial results (26-36% decrease in symptoms) and met all its endpoints for efficacy and safety.** In April ZLD announced the results from a Phase 1b/2a clinical trial conducted at the University of Western Australia (UWA) Centre for Sleep Science led by principal investigator Professor Peter Eastwood. The double-blind, placebo-controlled crossover study of 23 chronic insomnia patients showed a statistically significant 26% decrease in symptoms overall (measured by the ISI index), and an even better 36% decrease from the patients who elected to take a double dose. Just as important was that the ZLT-101 therapy was well tolerated with no serious adverse events. The trial has yielded a comprehensive data pack that supports ZLD’s plan to launch the world’s first clinically validated MC insomnia product into global markets in 2020. ZLD aims to launch in the Australian market early Q3, 2020, followed by other markets where MC has been legalised including the USA, Germany (where there is strong reimbursement; ZLD partner already in place – HAPA pharm GmbH) and the UK (ZLD distributor already in place: Health House International).
6. **New drug candidate for Peripheral Arterial Disease (PAD)(diabetes related) –** ZLD has just announced a new partnership with a specialist clinic in Cleveland Mississippi called CVSCM to develop a novel CBD/ hemp-based drug for patients suffering debilitation complications of diabetes that has caused a huge increase in limb amputations. According to ZLD, for the 30 million Americans who suffer from diabetes, 1 out of 3 over the age of 50 will develop Peripheral Artery Disease (PAD), which is caused by restricted blood flow, usually to the legs, and results in significant pain and increased cardiovascular risk. The estimated global prevalence of PAD is 200 million people.

ZLD’s proposed partner Dr Foluso Fakorede, CEO of CVSCM, is a leader in this field, and has several thousands of patients with PAD under his care. According to CVSCM’s website, the clinic’s cardiovascular screening and other early intervention techniques have reduced amputation rates in its patients in the Mississippi area by 88% over the past 4 years.

Under the partnership, CVSCM will be responsible for all costs relating to the drug development and commercialisation including marketing and sales in the USA. ZLD will receive an up-front licencing fee (we estimate ~\$0.2m) and double digit royalties (we estimate 15-25%) on the commercialised products that result from the agreement. Our comment: This looks like another extremely interesting

opportunity for ZLD with a large and urgent un-met need. The structure of the agreement offers significant upside for ZLD with limited risk given CVSCM will incur all costs. No change to our estimates at this stage.

### The impact

PAD affects almost one in every five Australians.<sup>1</sup> Approximately 50 per cent of people with PAD show no symptoms, leading to under-diagnosis and under-treatment.<sup>2</sup>

While PAD is not immediately life threatening, someone with PAD is up to six times more likely to have a heart attack or stroke.<sup>3</sup>

In addition, the reduced blood flow to the limbs can lead to the limb developing gangrene, where it starts to decay and die. There is no cure for gangrene. The only treatment option is to amputate the affected limb to prevent the gangrene from spreading further in the body. Shockingly, every three hours in Australia, one person has an arm or leg amputated due to PAD.<sup>4</sup>

Source: <https://www.hri.org.au/health/learn/cardiovascular-disease/peripheral-artery-disease>

## 7. Pipeline of 5 other MC-based drugs in medium to advanced stages of development.

- Aged disorder (late 2020 launch, but little detail available at this stage)(refer ZLD presentation 9/7/20 p.11)
- Dermatology (OTC product planned for 2021 launch; 80/20 partnership with Dr Karyn Grossman, a well-known “celebrity” dermatologist)
- Oral health (CBD-based toothpaste, mouthwash; Consumer brand (refer ZLD presentation 1/5/20 p13); NB cannabis has natural anti-bacterial qualities
- Targeted Pain / Gastro-intestinal (2021 launch, but little detail available)
- Cancer / cancer diagnostics (refer ZLD presentation 1/5/20 p11).
  - Sport related pain in retired athletes - New project announced in June with Levin Growing Pty Ltd. ZLD will licence to Levin a specific proprietary formulation and Levin will fund a trial of up to \$1.0m. ZLD will design and co-ordinate the trial. Profits from any resultant product to be shares equally. Another use of ZLD’s embedded IP.

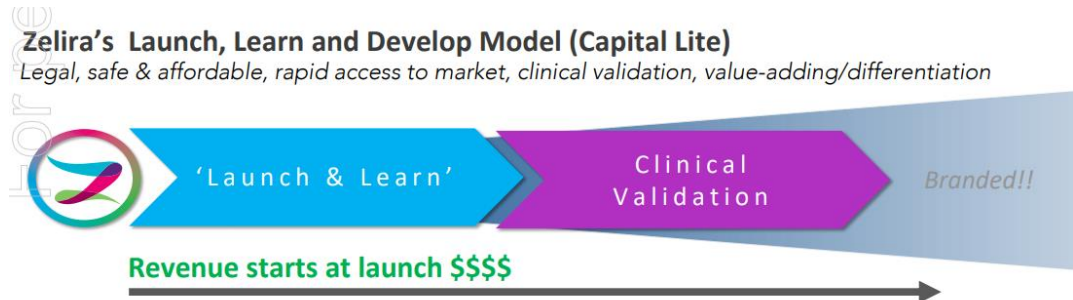
## 8. Patents lodged for:

- Cancer – granted
- Skin disease (topical) – granted
- Sleep disorders – granted
- Cancer diagnostics – granted
- Autism – filed
- Anxiety – filed
- Opioid reduction – filed

## 9. Branded pharmaceuticals backed by clinical and real world evidence Vs

**Generics** - We have lingering concerns about MC companies which are effectively just producing a generic product with little or no real differentiation. We greatly prefer ZLD’s “big-pharma like” focus on clinical validation, or at least professionally documented and published real world data collected from patients using their products. With a sufficiently large and long list of professionally documented dossiers detailing real-world prescribing and patient use for their products and also an on-going commitment to future clinical trials, ZLD hopes to get many of its MC drugs eventually registered as “proper medicines”. If achieved, this would have huge valuation and product pricing benefits for ZLD. Government and Health insurer reimbursements would also become highly likely. We note that in Germany, private insurers are already subsidising the cost of unregistered cannabis medicines and don’t see why this might not also occur in Australian markets. We note the premium valuation enjoyed by NASDAQ listed, UK company GW Pharmaceuticals plc (GWPH.O). GWPH’s Sativex (Nabiximols) is a cannabis-based registered drug for the treatment of spasticity due to multiple sclerosis (MS).

In the US market, lobbying continues to have MC declared legal at the Federal level. MC is currently accessible under doctor’s prescription/recommendation in ~35 states. However, if this came to pass, this would clear the path for the US FDA to gain regulatory control over the MC sector (currently the FDA only has oversight over products containing hemp-derived CBD, which are legal at the Federal level). This would have a significant impact as the FDA will likely impose much higher regulatory standards, with a focus on clinical data. In any event, we think doctors will be more willing to prescribe MC drugs with good clinical data packs, than ones without.



Source: 1/5/20 presentation, p9

10. **Small team, capital light business model** – Currently ZLD has staff of 8 including 6 directors (3 Aust, 3 US currently). ZLD’s CFO/ coy sec is outsourced in both Aust & USA. ZLD’s production, distribution and sales teams will also be out-sourced (e.g. Australia: Tasmanian Alkaloids; Louisiana to Ilera Holistic / Southern University Agricultural; Germany to HAPA pharm). Small team = bigger profits.
11. **German & UK distribution partners already in place** - ZLD already has partnerships signed with HAPA pharm GmbH in Germany, and Health House International for the UK. Both these organisations are related to ZLD’s entrepreneurial Deputy Chairman, Harry Karelis.

HAPA is a vertically integrated MC company operating large scale cultivation facilities as well as its own EU-GMP rated pharmaceutical manufacturing facilities. The German market has the potential to be the biggest MC market in Europe because there is mandated reimbursement from health insurance funds applicable to any MC treatment prescribed by a doctor (excluding a small co-payment). Tasmanian Alkaloids can also supply into Europe (already does so with poppy-based opiates).

## Risks / Negative Factors

1. **COVID-19 Delays** – ZLD has seen its launch of HOPE 1 & 2 delayed by 1-2 months due to Covid related shut-downs, and other potential deals as well. The drug will be manufactured within Louisiana by Ilera Hollistic, in conjunction with the Southern University Agricultural Centre. We expect that Covid may also delay the signing of other states. It will be helpful for ZLD to get Louisiana sales up and running so that it leverage the early success of the product and HOPE brand in Pennsylvania (now > 12 mths). This would improve ZLD's negotiating position as well as make it easier for local grower / processors to forecast likely volumes / demand. Also important to get some early adoption by customers and hopefully some positive referrals, blogs and word of mouth to build advocacy.
2. **Industry Pricing** – Wholesale prices of cannabis ingredients have been falling for over 6 months, due to over-supply in Canada and some parts of the US, plus new supply coming on stream in South America, South Africa and Australia (small). Althea Group Holdings (AGH) that we also cover has deferred indefinitely its planned greenhouse build near Frankston Melbourne, considering it better to buy MC wholesale rather than to manufacture itself. Retail prices remain high but are expected to gradually decline. Patient access schemes are still fairly restrictive, helping maintain high pricing, but there has been some loosening recently. We have not factored in a price decline for ZLD as we think ZLD's products will be well-differentiated in the market from more generic products due to the combination of clinical research and data packs for doctors to feel comfortable in prescribing ZLD medicines, and a strong focus on branding from day 1 (Hope 1 & 2 being an excellent example).
3. **Advocacy** – We think a good deal of HOPE 1 & 2's success in Pennsylvania for TerrAscend is due to the excellent support from the "Hope Grows for Autism" advocacy group and platform creating awareness, blogs, information sharing, seminars, directories of physicians and MC dispensaries, FAQs etc. ZLD will need to find or help nurture the development of similar organisations located in other targeted states. Googling the bigger US states, we found some similar sounding organisations (e.g. California Autism Foundation, Autism Society of Texas, Autism Society of Florida, Autismspeaks.org. So this may not be a problem. We expect that GPs and Sleep Clinics would provide this information assistance / awareness function for ZLD's new chronic insomnia drug. Other possible applications like Parkinson's disease also seem to have existing support groups e.g. Parkinson's Foundation Greater Texas; The Michael J Fox Foundation.
4. **Lack of reimbursement - government and private health insurance.** Currently Germany is the only country we have found that has a strong reimbursement regime, where private health insurers are required by law to include MC-based treatments in their cover, if prescribed by a doctor. We understand that the MC industry continues to lobby for government reimbursement in Australia, the US and UK. The industry is also lobbying insurers on the basis that effective treatment with MC-based medicines could reduce larger costs later in the patient's life. Due to the Federal prohibition in the US against cannabis, the market pays out of pocket for all such products and is therefore used to this payment dynamic.
5. **Legislation changes / regulatory** – In recent years there has been a steady increase in the number of countries and States that allow some form of MC use, generally only if prescribed by a doctor. In the USA, medicinal cannabis use remains illegal at the Federal level, but with approximately 35 US States and Territories allowing MC within the state, the outlook remains positive.

6. **Safety** – A major safety scare or product recall is an ever present risk in the pharmaceutical industry. We assess this risk to be low for MC given ZLD's out-sourced manufacturing strategy to reputable partners (e.g. Tasmanian Alkaloids in Australia and Ilera Hollistic in Louisiana).
7. **Competition from new drugs** – Currently there are no drugs that can cure autism spectrum disorder (ASD). The US FDA has approved the use of 2 anti-psychotic drugs - Risperidone and Aripiprazole to treat irritability associated with ASD children between certain ages (Source: US Department of Health and Human Services). Epidiolex is the first and only FDA-approved (2018) prescription cannabidiol-based drug. It is used to treat seizures associated with Lennox-Gastaut syndrome (LGS) or Dravet syndrome in patients 2 years of age and older. Pharmaceutical companies are constantly working to introduce new novel, more effective options. Similarly on drugs for chronic insomnia. All three of these FDA approved drugs mentioned above have significant side effects, as reflected on their respective warning labels or leaflets (example below – unwanted side effect: Death!). Being a natural product, MC generally has a better safety / side effect profile.

**WARNING: INCREASED MORTALITY IN ELDERLY PATIENTS WITH DEMENTIA-RELATED PSYCHOSIS**

Elderly patients with dementia-related psychosis treated with antipsychotic drugs are at an increased risk of death. Risperidone is not approved for the treatment of patients with dementia-related psychosis. [See [Warnings and Precautions \(5.1\)](#)]

Source: <https://www.drugs.com/sfx/risperidone-side-effects.html>

8. **Negative operating cash flow forecast for 2 more years.** We forecast operating cash outflows of -\$6.6m for FY20 just ended, -\$6.1m for FY21. We expect ZLD to become cash flow positive and self-sustaining in FY22. ZLD has just completed an \$8.7m capital raising which we think will be sufficient to see it through to becoming cash-flow positive.
9. **Heavy dilution from performance rights and management options** – ZLD has 966 million ordinary shares on issue, and potentially will have 1,913 million if all in-the-money options and performance rights are exercised. That is a 76% increase in the ordinary share count. However, exercising these would only bring in \$12.6m of additional capital. Our model fully dilutes both EPS and EV multiples. Potential investors who only look at the current market cap (Basic) may think the company looks cheaper than it really is. Of course the dilution only occurs if the revenue targets are achieved. And if the targets are achieved, one would expect the market valuation of the company to increase anyway.

ZLD: Capital structure	Ordinary	Options (in the money)	Class A Performance rights	Class B Performance rights	Fully Diluted A	Options Out of the money	Fully Diluted B
Shares on issue now	1,142.3	38.0	381.4	381.4	1,943.0	64.6	2,007.6
<b>Proposed - to be issued soon:</b> Class A Perf rights to be issued to O. Imasogie & L Gray on 7/9/20 (23/12/24) Class B Perf rights to be issued to O. Imasogie & L Gray on 7/9/20 (23/12/24)			12.5	12.5	12.5		12.5
<b>Pro-forma shares in Issue - Basic and Fully Diluted</b>	<b>1,142.3</b>	<b>38.0</b>	<b>393.9</b>	<b>393.9</b>	<b>1,968.0</b>	<b>64.6</b>	<b>2,032.6</b>
Increase on base no. of Ordinary shares from options & performance rights %		3.3%	34.5%	34.5%	72.3%	5.7%	177.9%
Additional capital potentially raised from options exercise (\$m)		\$ 1.2	\$ -	\$ -	\$ 1.2	\$ 12.5	\$ 13.7

Source: Sequoia estimates

10. With a large holding by management (and management options & performance rights), ZLD has attracted only one institutional shareholder at this stage. We expect this will soon change as the market becomes aware of progress in Louisiana and other potential new US states for the Autism drug, and as the insomnia drug launch and multi-country roll out becomes more tangible.

## Share price catalysts - Numerous

1. ZLD June quarter report and 4C. Timing: Just released. Sales have not yet commenced in Louisiana due to Covid, and ZLD received an A\$234k up-front licence fee (one-off) in the March quarter, so we are not expecting any revenue in the June quarter. We are instead looking for a general update on the company's activities, and the timing of new product launches by location. There is a lot happening at ZLD which in our opinion, is not being reflected in the share price. No one is currently watching this exciting company which is about to launch 2-6 products into Australian and international pharmaceutical markets.
2. FY20 results and commentary. Australian investors to hear more from the three US-based directors who are largely unknown here (Zoom call or webinar please). We have had the benefit of a number of discussions with these experienced and successful industry experts. We believe that a significant share price re-rating is possible when Australian investors gain confidence in the strategy and the team. Many Australian companies going to the US are unsuccessful because they do not fully understand the complexities of the US market. We think this won't be the case here, with the US directors being experts in the US and global pharmaceutical space. Timing: August 2020.
3. Launch of HOPE 1 & HOPE 2 in Louisiana, and early indications of traction. Timing: This quarter (next 6 weeks).
4. Further US state by state licencing deals for up to 34 more states. We expect up-front licence fees of ~US\$150-250 per state (A\$200k to \$400k), and on-going royalties of 15-20%. There could be agreements with multi-state operators.
5. Timing and launch of HOPE 1 & 2 in Australia, Germany and the UK.
6. Launch of ZLD product No.2: "Zenivol" chronic Insomnia product in Australia. As this will be the World's first MC-based insomnia drug to be launched backed by clinical trial data, we expect a lot of interest and publicity. Customer testimonials expected to follow. Here is one on the Today Show from one of the patients on the trial. <https://www.facebook.com/watch/?v=3101106246616553>
7. Details of 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> products to be launched, and where and when.
8. Further clinical trial results (e.g. Autism Observational trial at Children's Hospital Philadelphia – CHOP – (expected late 2020).
9. Achieving its first A\$1.0m of revenue. We expect this to occur in FY21. We also note that ZLD achieving its first US\$1.0m of revenue (within 3 yrs of December 2019) is the milestone for the Class A performance rights to convert to ordinary shares.
10. Becoming cash flow positive. We estimate this will occur in FY22, but it could be earlier.
11. Getting at least 1 product approved and registered by the TGA or FDA. Timing unknown (our rough guess: 3-5 years). This would be a major value driver. In addition, it would open up the possibility of patients qualifying for cost reimbursement from governments and / or health insurers.
12. New substantial shareholders. Timing: Any time. ZLD currently has only one institutional shareholder on its books – Merchant Funds Management out of Perth. With the publication of our detailed report, and the market beginning to realise the growth potential of the stock, strong news flow and numerous milestones, we expect a significant re-rating.
13. Further broker research coverage likely in time.

## Clinical Trials Update

### *Chronic Insomnia trial completed.*

- Where: Double-blind placebo controlled crossover trial with 23 patients diagnosed with chronic insomnia, at the University of WA Centre for Sleep Science conducted over 2 weeks using ZLT-101 (the whole process actually took ~ 15 months – trial design, preparation, recruiting patients, the trial itself, post-trial analysis of data).
- Trial results announced 7 April 2020: Results exceeded expectations and met both primary and secondary endpoints. There was a 26% reduction in the symptoms overall, and a 36% reduction in the symptoms of patients who elected to take a double dose.
- Secondary endpoints: Showed treated patients slept significantly longer, went to sleep faster, and went back to sleep sooner after waking. Patients also reported significant improvement in the quality of life measures including feeling rested after sleep, feeling less stressed, less fatigued and improved overall functioning.
- Next steps: ZLD said “Globally we are the first company to take full-spectrum cannabis product and test it for efficacy in the insomnia space. We have given the physicians the clinical evidence to prescribe this compound. ...Based on the success of this trial, we’re on track to launch our insomnia product into global markets early in 2H20 and expect to be earning revenues soon after”.
- ZLD said insomnia is a large unmet clinical need. It affects ~30% of the US population and is a major risk factor for patients suffering chronic pain, neurological disorders (Parkinson’s, dementia), mental disorders (anxiety, depression, anorexia) and cardiovascular disease.
- The market for prescription and over-the-counter medications in the US is more than US\$2 billion (A\$3.3bn) in annual revenue.

### *Chronic pain phase 1 Safety & Dose Escalation study completed - to assess the safety of its ZTL-103 cannabis formulation in 7 chronic pain patients already using high doses of opioids.*

- Where: Undertaken at St Vincent’s hospital Melbourne and Emerald Clinics in Perth.
- Results announced 14 July 2020: Primary end point achieved. ZTL-103 is safe.
- Secondary endpoint achieved: Statistically significant reductions in scores for anxiety, stress and depression at daily doses  $\geq$  30mg.
- Next steps: This data and its insights will be used for the formulation of the product to be licenced to Levin, targeting pain experienced by retired athletes.

### *Continuing / planned for FY21 & FY22*

1. ZLD on track to launch 5 new products in CY20, and a dermatology portfolio in CY21.
2. **Autism** observational trial continuing at Children’s Hospital of Philadelphia (CHOP) aimed at assessing the impact of MC on autism in a real world setting.
3. New trials planned for **sports related Chronic Pain** in retired professional and amateur athletes in partnership with Levin Growing Pty Ltd. ZLD will licence a specific formulation to Levin. Levin will fund the trials to a \$1.0m budget, and ZLD will design and co-ordinate the study. ZLD will hold marketing rights for North and South America, and Levin for the rest of world. Profits will be shared equally.
4. New trials for **chronic pain (FY22)**.

## Evaluation of Opportunities - Autism therapy

### Background - What is Autism Spectrum Disorder (ASD)?

Autism spectrum disorder (autism) is a condition that affects a person's ability to interact with the world around them. Autism has wide-ranging levels of severity and varying characteristics. No two autistic people are alike.

The term autism spectrum disorder includes Autism, Asperger's Syndrome and Pervasive Developmental Disorder not otherwise specified (PDD-NOS).

Autism is a neuro-developmental disability thought to have neurological or genetic causes (or both). However, the cause is not yet fully understood and there is no cure. An autistic person has difficulties in some areas of their development, but other skills may develop typically.

Autism affects around 1 in 100 (1.0%) to 1 in 110 (0.9%) people of school age, with males being around three times more likely to be affected than females.

Autistic people have difficulties in the two main areas of:

- social communication and interaction
- restricted or repetitive behaviours, interests and activities (including sensory processing difficulties).

Source: <https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/autism-spectrum-disorder-asd>

### *Increasing Prevalence*

According to a 17 January 2019 report by expert Lihi Bar-Lev Schleider at the Soroka University Medical Centre in Beersheba Israel (the 3rd largest hospital in Israel with 1,100+ beds), there has been a 3-fold increase during the last 30 years in the number of children diagnosed with autism spectrum disorders worldwide. She says there are no specific treatments currently available and interventions are focussing on lessening the disruptive behaviours, training and teaching self-help skills for greater independence.

In 2007, she says the Israel Ministry of Health began providing approvals for medical cannabis, mainly for symptoms palliation. In 2014, The Ministry of Health began providing licenses for the treatment of children with epilepsy. After seeing the results of cannabis treatment on symptoms like anxiety, aggression, panic, tantrums and self-injurious behaviour, in children with epilepsy, parents of severely autistic children turned to medical cannabis for relief.

In her own report, her group examined the data of 188 ASD patients treated with MC between 2015 and 2017. The results after 6 months of treatment were as follows:

- 28 patients (30.1%) reported a significant improvement
- 50 (53.7%) moderate
- 6 (6.4%) slight
- 8 (8.6%) had no change in their condition.
- Twenty-three patients (25.2%) experienced at least one side effect; the most common was restlessness (6.6%).

She concluded that Cannabis in ASD patients appears to be well tolerated, safe and effective option to relieve symptoms associated with ASD.

However she cautioned that whilst many patients with autism are being treated today with medical cannabis, there is a significant lack of knowledge regarding the safety profile and the specific symptoms that are most likely to improve under cannabis treatment.



## Prevalence of Autism in the USA

According to the US CDC (Centers for Disease Control and Prevention), studies in Asia, Europe and North America have identified individuals with ASD with an average prevalence of between 1% and 2%.

Surveillance Year	Birth Year	Number of ADDM Sites Reporting	Combined Prevalence per 1,000 Children (Range Across ADDM Sites)	This is about 1 in X children...
2000	1992	6	6.7 (4.5-9.9)	1 in 150
2002	1994	14	6.6 (3.3-10.6)	1 in 150
2004	1996	8	8.0 (4.6-9.8)	1 in 125
2006	1998	11	9.0 (4.2-12.1)	1 in 110
2008	2000	14	11.3 (4.8-21.2)	1 in 88
2010	2002	11	14.7 (5.7-21.9)	1 in 68
2012	2004	11	14.5 (8.2-24.6)	1 in 69
2014	2006	11	16.8 (13.1-29.3)	1 in 59
2016	2008	11	18.5 (18.0-19.1)	1 in 54

Source: <https://www.cdc.gov/ncbddd/autism/data.html> Page last updated 25/3/20

## Hope Grows for Autism

Hope Grows for Autism network – is a Pennsylvania based research, education and advocacy group dedicated to supporting families with Autism. It receives sponsorships and donations. It also offers financial assistance to families living with autism who can't afford treatment.

It was founded by Erica Daniels whose son was diagnosed with autism in 2007. Erica is an internationally recognized medical cannabis activist, autism advocate, author, public speaker and devoted mother. The Board consists of Erica (President), and nine others.

WELCOME TO HOPE GROWS FOR AUTISM

About | Become a Hope Grows Member | Research | News | Donate | Surveys | Medical Professionals

**SERVICES**  
 Contact  
 Financial Assistance  
 Become a Hope Grows Member  
 PA Dispensaries  
 Recommending Physicians in PA  
 Who we Are  
 Autism State by State

**INFORMATION**  
 About the Founder  
 Testimonials  
 Board of Directors  
 Sign up for our Newsletter  
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 This website is meant for informational purposes only and is not intended to take the place of consultation with your physician. This site is not a substitute for medical advice, diagnosis or treatment, nor is the information provided herein intended to replace consultation with a qualified physician.

**FOLLOW US**  
 f | | @  
**GET IN TOUCH**  
 Share your story, hear other stories, learn about treatments, Hope Grows for Autism is a caring community here to help.  
 outreach@hopegrowsforautism.org  
 hope  
 PENNSYLVANIA

Source: <https://hopegrowsforautism.org/890-2/>

*How Does Cannabis help Autism (According to the Hope Grows website)*

There is no cure for autism.

There are two FDA approved drugs for treating behavioural symptoms associated with autism – Risperidone and Aripiprazole (both for irritability). Both of these drugs come with significant risk of dangerous and sometimes permanent side effects. Medical cannabis offers a safer alternative to traditional pharmaceuticals.

**SYMPTOM AND BEHAVIORAL IMPROVEMENT**

*Mood/Behaviour*

- Cannabis helps regulate emotions and aggressive outbursts

*Neurological*

- The science behind cannabinoids is clear: marijuana helps brain achieve breakthroughs in learning, consciousness and understanding

*Aggression and Sleep Issues in Alzheimer’s*

- Safety and Efficacy of Medical Cannabis Oil for Behavioural and Psychological Symptoms of Dementia

*Sleep*

- 5 ways Marijuana affects your sleep (web link to [LeafScience.com](http://LeafScience.com))
- Cannabis, Sleep and Nutrition: How the Endocannabinoid System (ECS) affects our Circadian Rhythm (web link to: <https://www.leafly.com/news/science-tech/cannabis-sleep-and-nutrition-how-the-endocannabinoid-system-afec>)

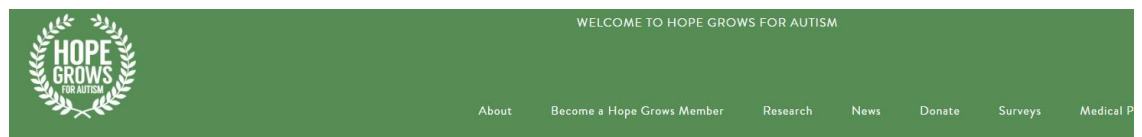
*Pain*

- (web link to: <https://pubmed.ncbi.nlm.nih.gov/26889611/>).

**IS CANNABIS SAFE?**

- Marijuana backed by more studies than most FDA Approved Pharma Drugs
- Ultra-low doses of THC may help protect against neurodegenerative diseases
- Harvard: Marijuana doesn’t cause schizophrenia

**TRUSTED BRANDS**



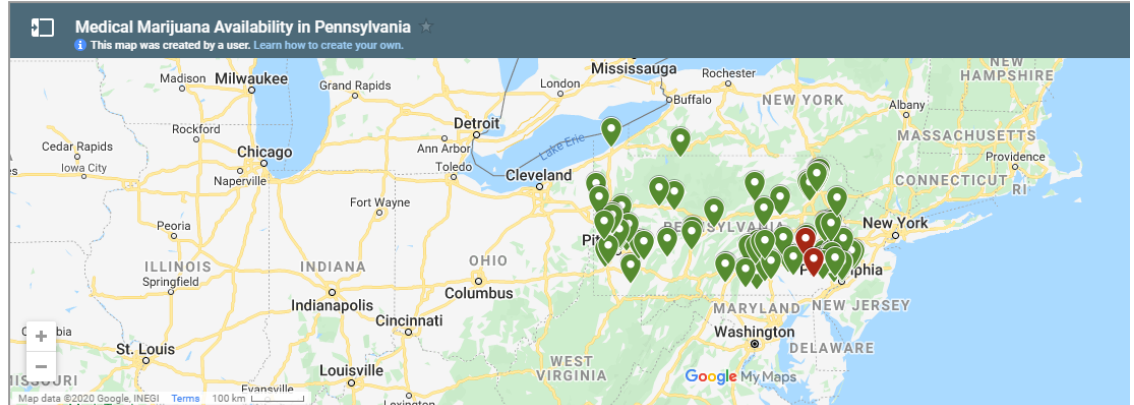
TRUSTED BRANDS



Source: <https://hopegrowsforautism.org/supported-brands/>

### *Medicinal Cannabis Availability in Pennsylvania*

There are 47 dispensaries listed on the website for Pennsylvania's medical marijuana program, including Ilera Healthcare at the very top. There is also a map and a PDF listing of hundreds of names, addresses, contact details and their specialty areas (e.g. Chronic pain management, neurology, addiction medicine etc. for doctors approved to participate in the State program. And there is a user guide on how to get registered, get certified by a doctor, pay for a medical marijuana ID card, and find a dispensary.



Source: <https://hopegrowsforautism.org/dispensaries/>

### *Qualifying Medical Conditions (Pennsylvania)*

Only patients suffering from one of the following medical conditions can participate in Pennsylvania's medical marijuana program:

- Amyotrophic lateral sclerosis.
- Anxiety disorders.
- Autism.
- Cancer, including remission therapy.
- Crohn's disease.
- Damage to the nervous tissue of the central nervous system (brain-spinal cord) with objective neurological indication of intractable spasticity, and other associated neuropathies.
- Dyskinetic and spastic movement disorders.
- Epilepsy.
- Glaucoma.
- HIV / AIDS.
- Huntington's disease.
- Inflammatory bowel disease.
- Intractable seizures.
- Multiple sclerosis.
- Neurodegenerative diseases.
- Neuropathies.
- Opioid use disorder for which conventional therapeutic interventions are contraindicated or ineffective, or for which adjunctive therapy is indicated in combination with primary therapeutic interventions.
- Parkinson's disease.
- Post-traumatic stress disorder.
- Severe chronic or intractable pain of neuropathic origin or severe chronic or intractable pain.
- Sickle cell anemia.
- Terminal illness.
- Tourette syndrome.

Source: <https://www.pa.gov/guides/pennsylvania-medical-marijuana-program/>

### Hope Grows - Research White Paper

There is a White Paper on the website with the results of a 50 patient survey of patients that used the HOPE 1, or HOPE 2 (or both) MC formulations manufactured by Ilera Healthcare.

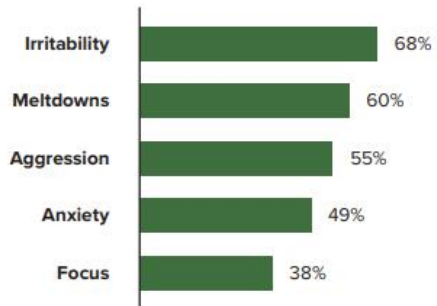
## RESULTS

Respondents used HOPE™ 1, HOPE™ 2 or both products for a range of 5-133 days (average of 68 days of use) reported the following:



### Improvements in Symptoms

Graph A



### Improvement in Quality of Life

Graph B



Source: <https://hopegrowsforautism.org/wp-content/uploads/2020/06/2020-06-Autism-Patients-Report-Improvement-in-symptoms- SurveyWhitePaper.pdf>

### Patient and Doctor Testimonials

“ Our 5-year-old has been on HOPE™ for just over a year now, it has positively saved our lives! To think what our day-to-day was and what it is now is just remarkable... Within two weeks of Ilera HOPE™ the difference was night and day! Sleeping consistently, better appetite, better focus at school, much better overall behavior and mood...

**Survey Participant**, Patient Caregiver

“ All physicians who treat patients with Autism Spectrum Disorder should be aware that HOPE™ represents a significant addition to the potential tools we have to improve the lives of ASD patients and their families.

**Dr. Richard Magill** is the Medical Director at PA Green Med and is approved by the Pennsylvania Department of Health to recommend medical cannabis to patients with approved conditions

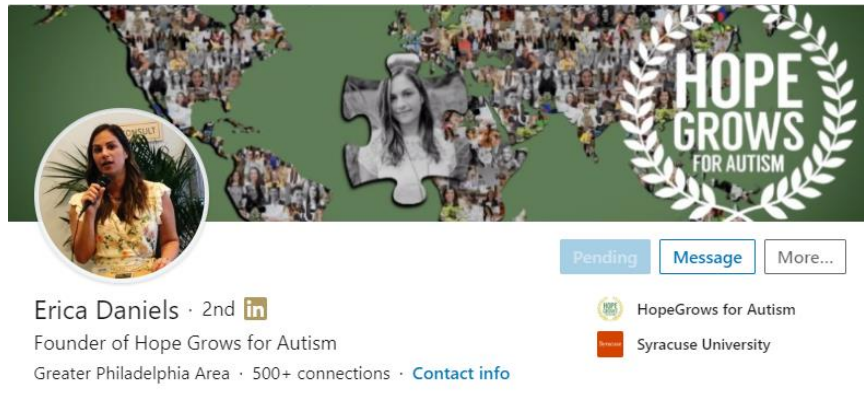
“ For decades the core symptoms of Autism Spectrum Disorder have been largely resistant to traditional drug therapy. Now so many of our Autistic patients are experiencing transformative results using a combination of THC, CBD and terpenes in proper combinations such as those found in the HOPE™ family of products. Kudos to the pioneering work of Erica Daniels and Ilera Healthcare for bringing us such amazing therapeutics as well as survey results with actionable information. I give all of my Autistic Families the link to HOPE GROWS FOR AUTISM as a necessary resource.

**Dr. Charles Harris**, a Board-Certified Emergency Medicine Physician and Pennsylvania Department of Health approved recommender

## Erica Daniels – Founder of Hope Grows for Autism, and leading advocate in US

Erica Daniels was the founder of this advocacy and information user group. She has become a leading national figure in the USA regarding autism.

Her resume on LinkedIn is inspiring. She had a successful 14 year career in advertising and print media before devoting herself to helping her autistic son, and helping numerous other affected families with their Autism challenges.



### Experience



#### Founder

HopeGrows for Autism  
Jun 2016 – Present · 4 yrs 2 mos

Our mission is to IMPROVE the LIVES of FAMILIES affected by AUTISM through research, education and advocacy of medical cannabis treatment.



#### CEO

Autism Advisors, LLC  
May 2014 – Present · 6 yrs 3 mos  
Montgomery County, PA

Autism Advisors LLC is a research & advisory firm which provides strategic consultation and solutions to healthcare professionals, product manufacturers and universities to empower them in making data-backed business & healthcare decisions involving autism.



#### Author

COOKING WITH LEO: An Allergen-Free Autism Family Cookbook  
Jan 2017 · 1 mo

Cooking with Leo: An Allergen-Free Autism Family Cookbook  
by Erica Daniels et al.  
Link: <http://a.co/0a0WXU5>

[...see more](#)



#### Parent Mentor

The Autism Community in Action (TACA)  
2012 – 2014 · 2 yrs

Mentoring families who have a child newly diagnosed with autism to help them access services and supports by giving advice, going to IEP meetings and/ or doctor appointments, offering emotional support, ect...

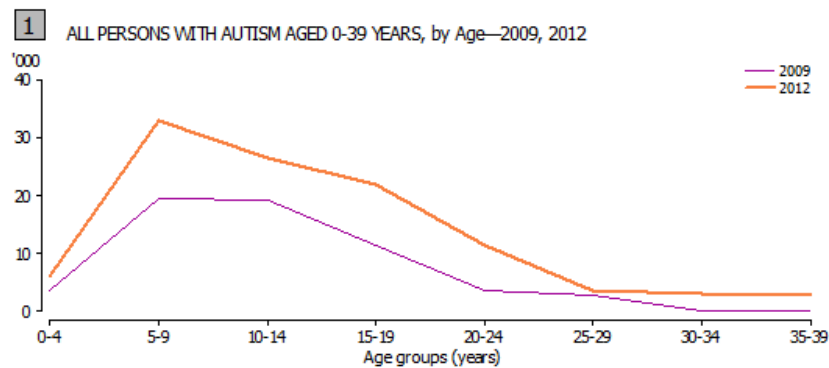


#### Family Care Coordinator

Autism Treatment Center of Newtown Square  
2010 – 2011 · 1 yr

## Prevalence of Autism in Australia

The prevalence of Autism in Australia is similar to the USA.



**In 2012, the incidence of Autism in children between the ages of 5 and 9 in Australia was 1 in 32 children.**

Source: Australian Autism ADHD Foundation

## Our Forecasts

We show our detailed revenue model for Autism on page 25.

ZLD is in revenue start up mode with multiple new products to launch during FY21:

- USA: Launch of HOPE 1 & HOPE 2 for Autism in Louisiana is imminent (has been slightly delayed due to Covid).
- USA: Other states - This will be followed by a series of partnership agreements for other US permitted states. We are expecting 5 new States per annum to be signed and launched. We understand that several discussions already at an advanced stage.
- Australia – The focus for this market will be the launch of “Zenivol” for chronic insomnia sufferers.
- Germany – We expect ZLD to launch both HOPE and Zenivol during FY21. Germany is a large market with a high level of mandated health fund reimbursement for MC treatments. These are in our forecasts.
- UK - Launches in the UK are being planned (but not in our forecasts yet as timing too uncertain).

## Evaluation of Opportunities – Chronic Insomnia

### UWA Clinical Trial

In April 2020 ZLD announced the results from a Phase 1b/2a clinical trial conducted at the University of Western Australia (UWA) Centre for Sleep Science led by principal investigator Professor Peter Eastwood. The double-blind crossover study of 23 chronic insomnia patients over 4 weeks (2 weeks placebo, 2 weeks on the active, and then crossed over after a 1 week wash out period) met both its primary and secondary objectives:

- **Efficacy:** A statistically significant 26% decrease in symptoms overall (measured by the insomnia “ISI index”), and an even better 36% decrease from the patients who elected to take a double dose (12 patients).
- Treatment was **dose responsive**.
- **Safety:** Just as important was that the ZLT-101 therapy was well tolerated with no serious adverse events.

### ZTL-101 IMPROVED OBJECTIVE MEASURES OF SLEEP (ACTIGRAPHY)

ZLT-101 vs Placebo	Total Sleep Time (min)	Sleep Efficiency (%)	Wake After Sleep Onset (min)	Sleep Onset Latency (min)
Low dose (n=11)	↑28*	↑2.61*	↓9.52	↓0.25
High dose (n=12)	↑42**	↑3.57**	↓12.31*	↓1.19*
<b>Average</b>	<b>↑33**</b>	<b>↑2.89**</b>	<b>↓10.17*</b>	<b>↓0.41</b>

#### ZTL-101 significantly:

- Increased the time people spent asleep (TST more than 30 mins and SE by 3%)
- Decreased the amount of time people spend awake during the night (WASO by less than 10 mins)
- Responses improved with increasing dose

Source: ZLD presentation 8/4/2

- Secondary outcomes - Subjective measures of sleep quantity and quality from reviewing patients’ sleep diaries were also positive.
- ZTL-101 significantly reduced people’s total fatigue – particularly mental fatigue and stress.
- Significantly improved the ability of people to function, particularly the ability to manage the home.
- Patient comments: “Fell asleep and did not wake up in middle of night ...more than in the past 22 years”;
- “I haven’t slept this well in a very long time”;
- “Slept well, night passed quickly”.

There is also an excellent Today Show Facebook video of Professor Eastwood and one of the trial participants available at (130,000 views!):

<https://www.facebook.com/watch/?v=3101106246616553>

ZLD says that this study was the most robust and rigorous clinical trial ever undertaken worldwide to assess the impact of MC on chronic insomnia. We believe that patients would welcome a naturally derived alternative medicine.

### Clinical Data Pack & preparing to launch Q3

The trial has yielded a comprehensive data pack that supports ZLD’s plan to launch the world’s first clinically validated MC insomnia product into global markets in 2020. ZLD aims to launch in the Australian market early Q3, 2020, followed by other markets where MC has been legalised including the USA, Germany (where there is strong reimbursement) and the UK.

The data pack is important, as it aims to give prescribing doctors increased confidence in prescribing MC as a worthwhile alternative to traditional drugs (e.g. Benzo’s – many of which are addictive or have other side-effects). And it will be presented in a familiar format, similar to the data doctors receive for registered medicines (which typically have undergone 5-10 years of clinical human trials).

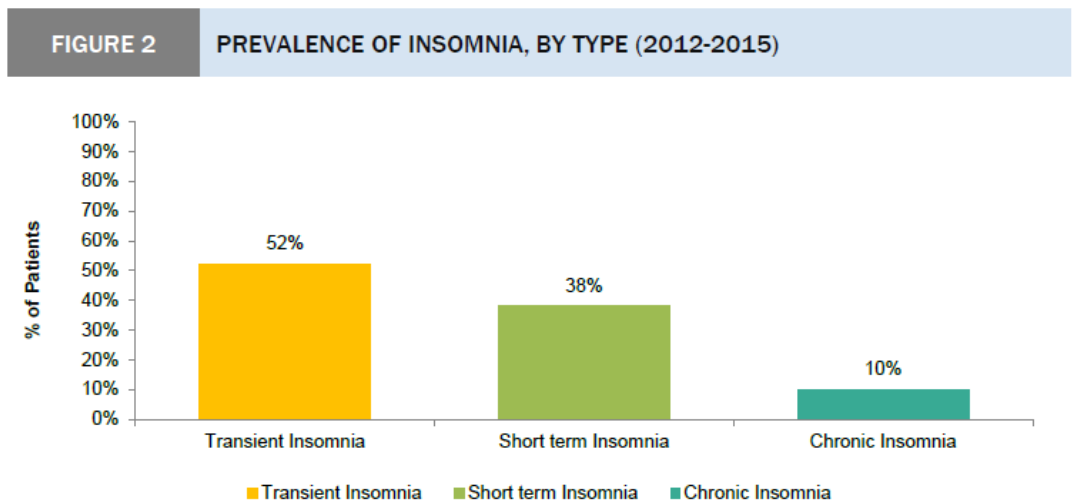
### Market Potential

Insomnia is one of the most common types of sleep disorders in which people have difficulty falling asleep, or staying asleep.

According to the US Centres for Disease Control (CDC) estimates, 50 to 70 million adults are prone to sleep or wakefulness disorders.

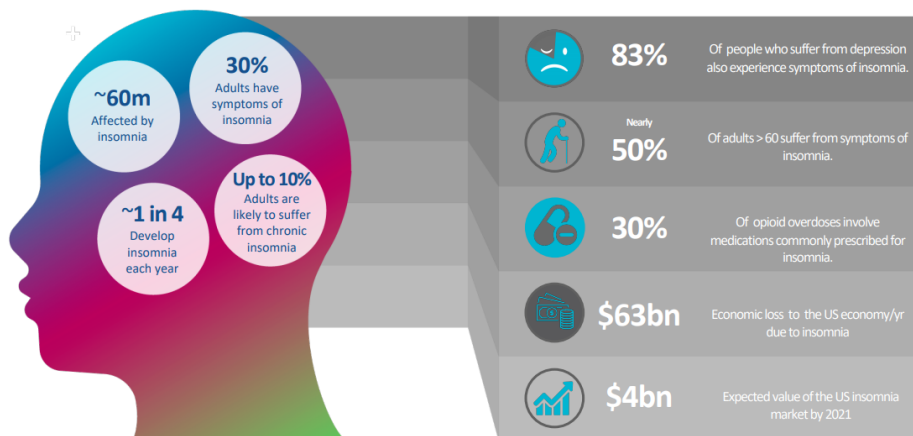
- ZLD management believe the value of the US insomnia market is US\$4bn.
- Generally the US market represents about 50% of the global opportunity.
- ZLD believes there is a large commercial opportunity available for new insomnia therapies that offer improved efficacy and / or improved safety and tolerability.

According to MarketsandMarkets.com, there are 3 main types of insomnia:



### KEY INSOMNIA STATS-USA MARKET

Insomnia is the most common sleep disorder in America





## Competitive Landscape

Although it is a big market, the insomnia market is supplied by a number of alternatives:

US Insomnia Market		
Non-Pharmaceutical Treatments	Pharmaceutical Treatments	
	Prescription Sleep Aids	Over-the-Counter Sleep Aids
<ul style="list-style-type: none"> <li>● Cognitive Behavioural Therapy for Insomnia (CBTI) (sleep techniques, understanding, better sleep hygiene habits)</li> <li>● Hypnotherapy</li> <li>● Biofeedback</li> <li>● Acupuncture</li> <li>● Bright Light Therapy</li> <li>● Music Therapy</li> <li>● Aroma Therapy</li> </ul>	<p><b>Non-benzodiazepines</b></p> <ul style="list-style-type: none"> <li>● Zolpidem</li> <li>● Eszopiclone</li> <li>● Zaleplon</li> </ul> <p><b>Benzodiazepines (Benzos)</b></p> <ul style="list-style-type: none"> <li>● Valium (generic: Diazepam)</li> <li>● Prosom (generic: Estazolam)</li> <li>● Doral (generic: Quazepam)</li> <li>● Niravam (generic: Alprazolam)</li> </ul> <p><b>Orexin Antagonists</b></p> <ul style="list-style-type: none"> <li>● Belsomra (generic: Suvorexant)</li> </ul> <p><b>Melatonin Receptor Agonist</b></p> <ul style="list-style-type: none"> <li>● Rozerem (generic: Ramelteon)(non-addictive)</li> </ul> <p><b>Others</b></p> <ul style="list-style-type: none"> <li>● Antipsychotics</li> <li>● Chloral derivatives</li> <li>● Tricyclic antidepressants</li> </ul>	<ul style="list-style-type: none"> <li>● Antihistamines</li> <li>● Melatonin</li> <li>● Valerian Roots (perennial flowering plant)</li> <li>● Other Herbal &amp; Dietary supplements</li> </ul>

Source: Marketsandmarkets.com; Phillip Capital

## ZTL-101 COMPARABLE TO CURRENT SLEEP MEDICATIONS

Criteria	ZTL-101	Temazepam (Temtab®) Aspen	Zolpidem (Stilnox®/Ambian®) Sanofi	Suvorexant (Belsomra®) Merck	Melatonin
Rapid Sleep Onset	+/-	✓	✓	X	X
Improved Sleep Maintenance	✓	+/-	X	✓	X
Increase Total Sleep	✓	✓	✓	✓	X
Improve 'Quality of Sleep'	✓	✓	✓	X	X
Feel Rested Upon Waking	✓				
No Serious Side-Effects	✓	+/-	+/-	+/-	X
Maintain effect long-term	TBD	X	X	✓	X
No potential for addiction	TBD	X	X	✓	X

Source: ZLD presentation 8/4/20

## Forecasts and Balance Sheet review

### Our key assumptions

- The most important piece of information and assumption behind all our detailed modelling is this. We understand from discussions with management that HOPE 1 & 2 for Autism have generated strong prescription driven sales in their first year since launch in September 2018. Reading the blogs on the [www.HopeGrowsforAutism.org](http://www.HopeGrowsforAutism.org) not-for-profit website and social media, it is pretty clear that this drug is working and making a difference for many individuals and their families.
- <https://hopegrowsforautism.org/a-thank-you-from-a-child-on-the-spectrum/>
- <https://hopegrowsforautism.org/alexis-poper-shares-her-story/>

**Our Autism model works as follows.** Prevalence in Australia and overseas has been rising. ABS stats were 0.9% of the population had ASD. We then assume that 40% of this cohort have severe autism and so more likely to require a therapy such as ZLD's HOPE 1 & 2. We then assume a segment penetration of just 1.0%, building to 4.0% over the next 5 years. This should be very conservative as we are effectively modelling 1.0% of 40% = 0.4% overall penetration of the population with ASD. We assume that patients order 8 bottles (units) per annum. Again we think conservative as there is a Day and a Night formulation. We assume a wholesale price of A\$150 per bottle. Each bottle generally lasts a patient one month, depending on their doctor's prescribed amounts. The USA is a licencing model on a State x State basis. We expect a royalty range to ZLD of 15-25%, but use 15% to be conservative at every step in our modelling.

ZLD - "Hope" Autism drug forecasts							
<b>1. Australia</b>							
	31/12/2018	31/12/2019	FY21e	FY22e	FY23e	FY24e	FY25e
a. Population (ERP)(est resident pop)(per ABS)	25,172,300	25,522,169	26,402,046	26,873,947	27,349,900	27,829,520	28,311,405
b. Persons with Autism (ASD)(Source: ABS)	205,200	229,700	237,618	241,866	246,149	250,466	254,803
c. Prevalence of Autism in pop % (we assume 0.9% in b.)	0.82%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%
d. Severe ASD persons (Aussie data says 50%, we assume 40%)		91,880	95,047	96,746	98,460	100,186	101,921
e. Assumed ZLD patient market share achieved			1.0%	1.5%	2.0%	3.0%	4.0%
f. Projected ZLD patients			950	1,451	1,969	3,006	4,077
g. Projected units (assume 8 bottles per patient pa) from Jan 2021			3,802	11,610	15,754	24,045	32,615
h. Projected Revenue (assume wholesale price A\$150 per unit)	\$ 150.00		\$ 0.570	\$ 1.741	\$ 2.363	\$ 3.607	\$ 3.914
<b>2. Germany</b>							
	31/12/2018	30/06/2020	FY21e	FY22e	FY23e	FY24e	FY25e
a. Population (source: www.tradingeconomics.com)	83,124,000	83,510,000	83,840,000	84,170,000	84,170,000	84,170,000	84,170,000
b. Persons with Autism (ASD)(Source: Our estimate)	315,871	417,550	503,040	589,190	673,360	757,530	757,530
c. Prevalence of Autism in pop % (we assume 0.5% & rising)	0.38%	0.50%	0.60%	0.70%	0.80%	0.90%	0.90%
d. Severe ASD persons (Aussie data says 50%, we assume 40%)		167,020	201,216	235,676	269,344	303,012	303,012
e. Assumed ZLD patient market share achieved			0.1%	1.0%	2.0%	3.0%	4.0%
f. Projected ZLD patients			201	2,357	5,387	9,090	12,120
g. Projected units (assume 8 bottles pa) from Jan 2021			804.86	18,854.08	43,095.04	72,722.88	96,963.84
h. Projected Revenue (assume w/s price €150 per unit, A\$245)(€ m)	€ 150.00		€ 0.12	€ 2.83	€ 6.46	€ 10.91	€ 11.64
i. Projected Revenue (A\$m)			\$ 0.20	\$ 4.61	\$ 10.54	\$ 17.78	\$ 18.97
<b>3. USA</b>							
		FY20e	FY21e	FY22e	FY23e	FY24e	FY25e
a. Population - Louisiana		5,639,632	5,696,028	5,696,028	5,696,028	5,696,028	5,696,028
b. No. of additional states assumed (potentially 34 to go)		0	5	10	15	20	25
c. Population - Additional states launched (avg popln 7.2m)		7,200,000	36,000,000	72,000,000	108,000,000	144,000,000	180,000,000
d. Population of MC friendly states covered			41,696,033	77,696,038	113,696,043	149,696,048	185,696,053
e. Persons with Autism (ASD)(Data says 2%. We assume 1.5% of US pop)	1.5%		625,440	1,165,441	1,705,441	2,245,441	2,785,441
f. Prevalence of Autism in pop %			1.50%	1.50%	1.50%	1.50%	1.50%
g. Severe ASD persons (Aussie data says 50%, we assume 40%)	40.0%		250,176	466,176	682,176	898,176	1,114,176
h. Assumed ZLD patient market share achieved	Build		3.0%	3.5%	4.0%	4.5%	5.0%
i. Projected ZLD patients			7,505	16,316	27,287	40,418	55,709
j. Projected units (assume 8 bottles per patient pa) from Oct 2020			45,032	130,529	218,296	323,343	445,671
k. Projected Revenue to licensee (assume w/s price US\$80 per unit \$114)(US\$m)	\$ 80.00		\$ 3.603	\$ 10.442	\$ 17.464	\$ 25.867	\$ 28.523
l. Projected Revenue (A\$m) to licensee			\$ 5.146	\$ 14.918	\$ 24.948	\$ 36.954	\$ 40.747
m. Projected royalty to ZLD (assume 15%)	15.0%		\$ 0.77	\$ 2.24	\$ 3.74	\$ 5.54	\$ 6.11
n. Projected up-fronts (Assume A\$0.2m per each new state)		\$ 0.20	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00
<b>4. Summary - ZLD - "Hope" Autism drug</b>							
		FY20e	FY21e	FY22e	FY23e	FY24e	FY25e
a. Patients (WWW)		-	8,657	20,124	34,643	52,514	71,906
b. Units (WWW)		-	49,638	160,993	277,145	420,111	575,249
c. Average rev achieved (WW)(declines because US is a royalty, not a full product sale)			\$ 31.01	\$ 53.35	\$ 60.05	\$ 64.10	\$ 50.40
d. Product sales - Aust (A\$m)			\$ 0.57	\$ 1.74	\$ 2.36	\$ 3.61	\$ 3.91
e. Product sales - Germany (A\$m)			\$ 0.20	\$ 4.61	\$ 10.54	\$ 17.78	\$ 18.97
f. Royalties - USA (A\$m)			\$ 0.77	\$ 2.24	\$ 3.74	\$ 5.54	\$ 6.11
g. Total recurring revenue (A\$m)		\$ -	\$ 1.54	\$ 8.59	\$ 16.64	\$ 26.93	\$ 28.99
h. Up-front licence fees - USA (A\$m)		\$ 0.20	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00
i. Total revenue - Autism		\$ 0.20	\$ 2.54	\$ 9.59	\$ 17.64	\$ 27.93	\$ 29.99

Source: Sequoia forecasts and assumptions

### Insomnia revenue model assumptions

Our model for the Insomnia product works in a similar fashion to our Autism revenue model. Studies we have found indicate that chronic insomnia is suffered by 5-15% of the population. The Australian Sleep Health Foundation report had a range of 7.5% to 14.8%. We assume 5.0% to be conservative. We then assume that just 10% of this cohort are not being successfully treated by current techniques and medications. We then assume that ZLD achieves a penetration rate of just 0.2% into this extreme subset, rising to 2.5% in 5 years. Again we assume each ZLD patient buys 8 bottles (units) per annum. We assume a wholesale price of A\$250 per bottle. This is higher than the price we have assumed for Autism, because “Zenivol” will have a full clinical trial data pack / drug dossier just like regular TGA or FDA approved drugs. This should give Doctors confidence in the safety and efficacy of the drug.

We have a slightly lower prevalence rate assumption for Germany, based on a local German study we found. However, we suspect the German data is understated, as other western countries are 5 to 15%. But we want to be conservative at every single line item in our model. If the actual data experienced by ZLD comes in higher, we will tweak our model upwards.

The USA is a licencing model on a State x State basis. We expect a royalty range to ZLD of 15-25%, but use 15%. We also assume up-front licence fees to ZLD of A\$200k /State.

ZLD - "Zenivol" Insomnia drug forecasts							
<b>1. Australia</b>							
	31/12/2018	FY20e	FY21e	FY22e	FY23e	FY24e	FY25e
a. Population (ERP)(est resident pop)(per ABS)		25,522,169	26,402,046	26,873,947	27,349,900	27,829,520	28,311,405
b. Persons with Chronic Insomnia (Source: Sleep Health Foundation says 7.5% to 14.8%; We use 5.0%)	5.0%	1,276,108	1,320,102	1,343,697	1,367,495	1,391,476	1,415,570
c. Prevalence of Chronic Insomnia in pop % (we assume 5.0% in b.)		5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
d. Est Insomnia patients uncontrolled by existing meds (we assume 10%)	10.0%	127,611	132,010	134,370	136,750	139,148	141,557
e. Assumed ZLD patient market share achieved	Build		0.20%	1.00%	1.50%	2.00%	2.50%
<b>f. Projected ZLD patients</b>			264	1,344	2,051	2,783	3,539
g. Projected units (assume 8 bottles per patient pa) from Jan 2021			1,056	10,750	16,410	22,264	28,311
h. Projected Revenue (assume wholesale price A\$250 per unit)	\$ 250.00		\$ 0.264	\$ 2.687	\$ 4.102	\$ 5.566	\$ 5.662
<b>2. Germany</b>							
	31/12/2018	FY20e	FY21e	FY22e	FY23e	FY24e	FY25e
a. Population (source: www.tradingeconomics.com)	83,124,000	83,510,000	83,840,000	84,170,000	84,170,000	84,170,000	84,170,000
b. Persons with Chronic Insomnia (Source: G Hajak, 2001 study says 4.0%)	4.0%	3,340,400	3,353,600	3,366,800	3,366,800	3,366,800	3,366,800
c. Prevalence of Chronic Insomnia in pop % (we assume 4.0% in b.)		4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
d. Est Insomnia patients uncontrolled by existing meds (we assume 10%)	10.0%	334,040	335,360	336,680	336,680	336,680	336,680
e. Assumed ZLD patient market share achieved	Build		0.20%	1.00%	1.50%	2.00%	2.50%
<b>f. Projected ZLD patients</b>			671	3,367	5,050	6,734	8,417
g. Projected units (assume 8 bottles pa) from Jan 2021			2,683	26,934	40,402	53,869	67,336
h. Projected Revenue (assume w/s price €220 per unit, A\$360)(€ m)	€ 220.00		€ 0.59	€ 5.93	€ 8.89	€ 11.85	€ 11.85
i. Projected Revenue (A\$m)			\$ 0.96	\$ 9.66	\$ 14.49	\$ 19.32	\$ 19.32
<b>3. USA</b>							
		FY20e	FY21e	FY22e	FY23e	FY24e	FY25e
a. Population - Initial states - Nil		-	-	-	-	-	-
b. No. of additional states assumed (potentially 35 to go)		0	5	10	15	20	25
c. Population - Additional states launched (avge popln 7.2m)	7,200,000		36,000,000	72,000,000	108,000,000	144,000,000	180,000,000
<b>d. Population of MC friendly states covered</b>			36,000,005	72,000,010	108,000,015	144,000,020	180,000,025
e. Persons with Chronic Insomnia (American Sleep Association says 10%; We assume 5%)	5.0%		1,800,000	3,600,001	5,400,001	7,200,001	9,000,001
f. Prevalence of Chronic Insomnia in pop % (we assume 5.0%)			5.0%	5.0%	5.0%	5.0%	5.0%
g. Est Insomnia patients uncontrolled by existing meds (we assume 10%)	10.0%		180,000	360,000	540,000	720,000	900,000
h. Assumed ZLD patient market share achieved	Build		0.20%	2.00%	3.00%	4.00%	5.00%
<b>i. Projected ZLD patients</b>			360	7,200	16,200	28,800	45,000
j. Projected units (assume 8 bottles per patient pa) from Jan 2021			1,440	57,600	129,600	230,400	360,000
k. Projected Revenue (assume w/s price US\$120 per unit \$170)(US\$m)	\$ 120.00		\$ 0.173	\$ 6.912	\$ 15.552	\$ 27.648	\$ 34.560
l. Projected Revenue (A\$m) to licensee			\$ 0.247	\$ 9.874	\$ 22.217	\$ 39.497	\$ 49.371
m. Projected royalty to ZLD (assume 15%)	15.0%		\$ 0.04	\$ 1.48	\$ 3.33	\$ 5.92	\$ 7.41
n. Projected up-fronts (Assume A\$0.2m per each new state)		\$ 0.20	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00
<b>4. Summary - ZLD - "Zenivol" Insomnia drug</b>							
		FY20e	FY21e	FY22e	FY23e	FY24e	FY25e
a. Patients (WW)		-	1,295	11,910	23,301	38,317	56,956
b. Units (WW)		-	5,179	95,284	186,412	306,532	455,647
c. Average rev achieved (WW)(declines because US is a royalty, not a full product sale)			\$ 243.90	\$ 145.12	\$ 117.61	\$ 100.50	\$ 71.08
d. Product sales - Aust (A\$m)			\$ 0.26	\$ 2.69	\$ 4.10	\$ 5.57	\$ 5.66
e. Product sales - Germany (A\$m)			\$ 0.96	\$ 9.66	\$ 14.49	\$ 19.32	\$ 19.32
f. Royalties - USA (A\$m)			\$ 0.04	\$ 1.48	\$ 3.33	\$ 5.92	\$ 7.41
<b>g. Total recurring revenue (A\$m)</b>		\$ -	\$ 1.26	\$ 13.83	\$ 21.92	\$ 30.81	\$ 32.39
h. Up-front licence fees - USA (A\$m)		\$ -	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00
<b>i. Total revenue - Insomnia</b>		\$ -	\$ 2.26	\$ 14.83	\$ 22.92	\$ 31.81	\$ 33.39

Source: Sequoia forecasts and assumptions

## Worldwide Revenue

Summary - ZLD - Worldwide Revenue						
Years ended June (A\$m)	FY20e	FY21e	FY22e	FY23e	FY24e	FY24e
<b>Patients</b>						
a. Australia		1,214	2,795	4,020	5,789	7,616
b. Germany		872	5,724	10,437	15,824	20,537
c. USA		7,865	23,516	43,487	69,218	100,709
d. <b>Worldwide</b>		<b>9,952</b>	<b>32,035</b>	<b>57,945</b>	<b>90,830</b>	<b>128,862</b>
<b>Autism (Hope)</b>						
a. Product sales - Aust (A\$m)	-	0.570	1.741	2.363	3.607	3.914
b. Product sales - Germany (A\$m)	-	0.197	4.610	10.537	17.781	18.966
c. Royalties - USA (A\$m)	-	0.772	2.238	3.742	5.543	6.112
d. <b>Total recurring revenue (A\$m)</b>	<b>-</b>	<b>1.539</b>	<b>8.589</b>	<b>16.642</b>	<b>26.930</b>	<b>28.992</b>
<b>Insomnia (Zenivol)</b>						
a. Product sales - Aust (A\$m)	-	0.264	2.687	4.102	5.566	5.662
b. Product sales - Germany (A\$m)	-	0.962	9.659	14.488	19.317	19.317
c. Royalties - USA (A\$m)	-	0.037	1.481	3.333	5.925	7.406
d. <b>Total recurring revenue (A\$m)</b>	<b>-</b>	<b>1.263</b>	<b>13.827</b>	<b>21.923</b>	<b>30.808</b>	<b>32.385</b>
<b>Up-front licence fees (USA)</b>						
e. Up-front licence fees - USA - Autism (A\$m)	0.200	1.000	1.000	1.000	1.000	1.000
f. Up-front licence fees - USA - Insomnia (A\$m)	-	1.000	1.000	1.000	1.000	1.000
g. <b>Total up-front licence fees (A\$m)</b>	<b>0.200</b>	<b>2.000</b>	<b>2.000</b>	<b>2.000</b>	<b>2.000</b>	<b>2.000</b>
<b>h. Total Revenue</b>						
i. Revenue growth	n/a	2301%	408%	66%	47%	6%

Source: Sequoia forecasts and assumptions

### Other Assumptions

**In FY25 we allow for a ~20% sales price reduction.** This is the year before our model feeds into the perpetual growth phase, so we want to be conservative. We do expect MC prices generally to decline from current high levels as new raw material production comes on stream, and perhaps more competing products emerge. For ZLD, we are not too worried about price competition for a number of reasons. ZLD has a first mover advantage; it has a very targeted product range (not a generic); a strong branding strategy (in our opinion, the Hope brand is fantastic for its authenticity, trust and alignment with the key patient support group Hope Grows, and is already a strong brand in Pennsylvania); and finally, a strong patent protection strategy. ZLD has already filed a family of patents around MC -based medicines for Autism.

**Forecast revenue for only 2 indications** - We have only modelled revenue for the two Autism drugs and the Insomnia drug. We have not included anything for the following indications, which ZLD is working on:

- Aged Disorders
- Dermatology
- Peripheral Arterial Disease (related to diabetes)
- Targeted pain / Gastro-intestinal
- Other area mentioned – Opioid reduction, anxiety, skin disease, cancer and cancer diagnostics.

Any one or two of these could represent significant upside to our forecasts and valuation. We will look to model them when further information becomes available and launch dates get closer.

**Up-front Licence fees** - ZLD has just received its first revenue – A\$234k of up-front licence fees for HOPE for Louisiana. A\$234k for one drug, for one smaller than average US state (Louisiana population 4.6m people v US average 7m per state). We assume A\$200k up-front licence fee for each of Autism and Insomnia, for each state. We think this will prove conservative, especially once ZLD has established a track record in the first few states, and ZLD may be able to negotiate higher up-fronts.

**Another up-front licence fee** has just been announced with a new proposed partnership with CVSCM of Cleveland Mississippi (Cardiovascular Solutions of Central Mississippi) targeting Peripheral Arterial Disease (PAD).

Our 5 new states per annum assumption for both initial drugs should be achievable. We note that TerrAscend has recently acquired an MC growing, processing and distribution business in New Jersey State. There are other multi-state operators that ZLD is already approaching. Our constant 5 new states per annum assumption for the 2 drugs should produce a nice A\$2.0m per annum of base revenues for the next 5 years (i.e. Would take

ZLD's HOPE into Louisiana plus 5x5 new states = 26 states in our 5 year forecasting period). This is out of a possible ~35 states that have legalised MC to be available by doctors' prescription. So a ~75% penetration of available states.

**Gross margin** – we have assumed a 50% gross margin in year 1 (FY21) rising gradually to 65% in FY24. This includes up-fronts which would be effectively 90-100% gross margins.

**Cost Base** – We assume a current cost base of \$6.9m pa rising gradually to \$9.0m by FY24. ZLD has just 8 employees (6 of whom are directors). R&D, sourcing, manufacturing and distribution are all out-sourced to experienced partners. ZLD is an IP-driven company with a capital-light business model, which should enable it to scale rapidly. That was the outcome at predecessor company ILERA Health. ZLD does not currently capitalise any R&D though in our opinion, it could certainly do that.

We have not factored in any share payments expense, which is as non-cash item.

**Ebitda margins** - We project Ebitda losses of \$5.7m for FY20, a loss of \$3.8m for FY21 before becoming Ebitda positive in FY22 with a \$5.7m profit and an Ebitda margin of 23%. We forecast Ebitda margins to rise to 40% in FY23 and 50% in FY24.

**Tax** – Currently ZLD is generating losses and accumulating tax losses. We expect ZLD to become NPAT positive in FY22 and to have recouped carry forward tax losses by FY24 and be paying normal 30% tax in FY25.

**Dividends** - We assume 0.4 cents/ share in FY25 (25% pay-out assumed).

**Balance Sheet** – We have assumed one further capital raising of \$6.0m in the next 6-12 months. This is factored into our forecasts and valuation.

## March Quarter Cash Flow Report

- ZLD received its first operating revenue during the quarter, being an up-front licence fee from ZLD's new processor and distributor in Louisiana of A\$234k (approximately US\$164k).
- An R&D grant of A\$1.0m was received in Q2 but is not expected to repeat in 2H.
- Cash operating expenses were \$1.7m for the quarter and \$5.9m for the 9 months (excluding the R&D grant).
- Operating cash flow was a cash burn of (\$1.5m) for the quarter and (\$3.6m for the 9 months.
- ZLD had net cash of \$4.0m at the end of the March quarter, having raised \$4.5m (net of costs) in the quarter (at 5.0 cents per share).

### Balance Sheet

ZLD's balance sheet changed dramatically with the December merger with Pennsylvania USA-based Ilera Therapeutics (ILTS). Completion date was 2 December 2019.

- Acquisition price \$33.5m. This was a 100% scrip deal, so there was a corresponding \$33.5m increase in Shareholders' Funds.
- Net assets acquired (provisional values) \$2.7m
- Goodwill \$3.7m
- Please note that the fully diluted share count is now significantly larger than basic, mainly due to 362.6m Class A performance rights and 362.6m Class B performance rights (conversion on or before Dec 2024) issued for ILTS.

In addition, ZLD raised \$4.5m in an institutional placement at 5.0 cents per share in February, to fund the growth of the enlarged business. We forecast ZLD will have net cash of approximately \$1.9m at June 2020 year-end.

We note that ZLD completed an \$8.7m capital raising in July to fund its exciting growth opportunities and multiple new product launches. The cash out-flows we forecast will be partly mitigated by up-front licence fees expected to be received for licencing the HOPE 1 & 2 Autism products and the planned new ZLT-101 Chronic Insomnia drug "Zenivol" in the USA.

ZLD: Balance Sheet				
Years ended June (A\$m)	FY19A	FY20e	FY21e	FY22e
Cash	3.1	2.0	4.6	11.3
Receivables	0.1	0.3	0.8	4.1
Inventories	0.0	0.0	0.4	1.8
Other	0.0	0.0	0.2	0.0
<b>Total current assets</b>	<b>3.1</b>	<b>2.2</b>	<b>6.0</b>	<b>17.2</b>
PP&E	0.0	1.3	1.3	1.3
Investments	0.4	0.2	0.2	0.2
<b>Intangibles</b>	<b>0.0</b>	<b>32.1</b>	<b>32.1</b>	<b>32.1</b>
Deferred tax assets	0.0	0.0	0.0	0.0
Other	0.0	0.3	0.3	0.6
<b>Total non-current assets</b>	<b>0.4</b>	<b>33.9</b>	<b>33.9</b>	<b>34.2</b>
<b>Total Assets</b>	<b>3.5</b>	<b>36.2</b>	<b>39.9</b>	<b>51.5</b>
Payables	-0.4	-0.6	-0.8	-1.6
Interest bearing liabs - Current	0.0	0.0	0.0	0.0
Provisions	0.0	0.0	-0.1	-0.1
Other	0.0	0.0	0.0	0.1
<b>Total Current Liabilities</b>	<b>-0.4</b>	<b>-0.7</b>	<b>-0.9</b>	<b>-1.6</b>
Interest-bearing liabs - Non-current	0.0	0.0	0.0	0.0
Provisions	0.0	0.0	0.0	0.0
Other	0.0	0.0	-0.1	-3.5
<b>Total Non-current Liabilities</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.1</b>	<b>-3.5</b>
<b>Total Liabilities</b>	<b>-0.4</b>	<b>-0.7</b>	<b>-1.0</b>	<b>-5.0</b>
<b>Total Shareholders' Equity</b>	<b>3.1</b>	<b>35.5</b>	<b>38.8</b>	<b>46.4</b>
Shares on issue - basic	755.3	966.3	1142.28756	1968.0
Shares on issue - Fully diluted	799.3	1793.0	1968.0	1968.0
Book value per share (basic)	\$ 0.004	\$ 0.037	\$ 0.034	\$ 0.024

Source: ZLD accounts; ASX announcements; Sequoia estimates

## Valuation Comparables

ZLD is now the 4<sup>th</sup> ranked domestic MC stock by market capitalisation. However fully diluting for options and performance rights, pro-forma market cap is \$106m which would make it the largest. ZLD has one of the strongest revenue growth profiles of any of the companies on this page, which we expect will increase the market rapidly.

Refinitiv Code	Company	Market Cap \$m	Net Cash (Debt) FY0	Price A\$	Revenue					Ebitda					Ebitda Margin				
					\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
EOF.AX	Ecofibre Ltd	387.8	7.2	2.750	50.7	58.1	NaN	NaN	NaN	19.7	34.0	55.0	NaN	NaN	38.8%	58.6%	NaN	NaN	NaN
PAL.AX	Palla Pharma Ltd	112.3	(3.4)	0.895	54.8	56.0	67.9	80.2	NaN	(0.2)	5.4	10.6	17.1	NaN	-0.3%	9.6%	15.6%	21.3%	NaN
<b>Medicinal Cannabis Companies</b>																			
CAN.AX	Cann Group Ltd	95.3	46.4	0.490	2.3	1.0	16.0	32.0	78.1	(10.2)	(15.0)	(7.0)	(8.0)	9.2	-435.1%	-1500.0%	-43.8%	-25.0%	11.8%
AGH.AX	Althea Group Holdings Ltd	85.2	14.9	0.365	0.8	5.2	26.9	62.4	81.4	(7.3)	(15.4)	(5.5)	6.4	13.1	-948.2%	-295.0%	-20.2%	10.3%	16.1%
AC8.AX	Auscann Group Holdings Ltd	59.6	35.3	0.150	0.9	NaN	NaN	NaN	NaN	(5.6)	NaN	NaN	NaN	NaN	-647.3%	NaN	NaN	NaN	NaN
ZLD.AX	Zelira - Basic	59.4	1.9	0.052	-	0.2	4.8	24.4	40.6	(3.4)	(5.7)	(5.0)	5.7	16.2	nm	-2847%	-104.0%	23.2%	40.0%
ZLD.AX	Zelira - Fully diluted	105.7	3.1	0.052	-	0.2	4.8	24.4	40.6	(3.4)	(5.7)	(5.0)	5.7	16.2	nm	-2847%	-104.0%	23.2%	40.0%
BOT.AX	Botanix Pharmaceuticals Ltd	52.3	4.7	0.054	0.2	-	13.2	35.3	NaN	(21.6)	(18.4)	(13.0)	33.2	NaN	-11112.8%	NaN	-97.8%	94.0%	NaN
MDC.AX	Medlab Clinical Ltd	46.0	10.5	0.165	7.8	8.1	6.8	10.2	13.4	(8.2)	(8.0)	(13.1)	(20.3)	(18.2)	-105.7%	-98.8%	-192.6%	-199.0%	-135.8%
THC.AX	The Global Group Ltd	44.0	2.8	0.255	4.8	NaN	NaN	NaN	NaN	(9.5)	NaN	NaN	NaN	NaN	-198.9%	NaN	NaN	NaN	NaN
MXC.AX	MGC Pharmaceuticals Ltd	42.3	2.4	0.026	0.9	2.4	7.3	NaN	NaN	(8.2)	NaN	NaN	NaN	NaN	-961.4%	NaN	NaN	NaN	NaN
BDA.AX	BOD Australia Ltd	25.0	2.8	0.275	1.3	NaN	NaN	NaN	NaN	(7.0)	NaN	NaN	NaN	NaN	-517.1%	NaN	NaN	NaN	NaN
EXL.AX	Elxinol Global Ltd	22.8	15.6	0.165	27.7	14.4	17.9	22.4	NaN	(21.4)	(15.4)	(12.7)	(8.5)	NaN	-77.1%	-106.7%	-70.8%	-38.1%	NaN
MMJ.AX	MMJ Group Holdings Ltd	21.8	95.5	0.095	0.1	NaN	NaN	NaN	NaN	(2.6)	NaN	NaN	NaN	NaN	-2009.3%	NaN	NaN	NaN	NaN
CGB.AX	Cann Global Ltd	16.1	(1.2)	0.005	0.6	NaN	NaN	NaN	NaN	(5.3)	NaN	NaN	NaN	NaN	-870.6%	NaN	NaN	NaN	NaN
CPH.AX	Creso Pharma Ltd	15.3	(0.4)	0.042	3.7	NaN	NaN	NaN	NaN	(11.1)	NaN	NaN	NaN	NaN	-301.8%	NaN	NaN	NaN	NaN
CP1.AX	CannPal Animal Therapeutics L	10.7	3.3	0.115	0.4	NaN	NaN	NaN	NaN	(2.0)	NaN	NaN	NaN	NaN	-487.7%	NaN	NaN	NaN	NaN
RGI.AX	Roto-Gro International Ltd	8.1	3.0	0.054	1.1	NaN	NaN	NaN	NaN	(4.1)	NaN	NaN	NaN	NaN	-358.5%	NaN	NaN	NaN	NaN
<b>Selected Aust Cannabis stocks - Median</b>					52.7	31.3	93.0	186.7	213.5	(127.5)	(77.9)	(56.2)	8.5	20.3	-242.0%	-295.0%	-84.3%	-7.3%	13.9%
GWPH.O	GW Pharmaceuticals PLC	3,334.5	521.3	107.070	311.3	510.4	791.1	1,103.0	1,320.1	(109.2)	(27.2)	270.3	490.0	781.0	-35.1%	-5.3%	34.2%	44.4%	59.2%
TLRY.O	Tilray Inc	887.7	(347.6)	6.980	167.0	222.7	337.4	493.9	425.1	(197.4)	(43.3)	13.8	59.4	135.8	-118.2%	-19.4%	4.1%	12.0%	32.0%
WEED.TO	Canopy Growth Corp	8,280.0	1,434.1	22.300	398.8	517.1	785.9	1,289.9	1,145.0	(844.6)	(308.8)	(125.0)	265.2	569.3	-211.8%	-59.7%	-15.9%	20.6%	49.7%
CRON.TO	Cronos Group Inc	2,547.2	1,506.0	7.280	23.8	41.7	89.4	163.9	139.8	(112.2)	(103.8)	(59.2)	(11.1)	37.9	-472.6%	-249.3%	-66.3%	-6.8%	27.1%
APHA.TO	Aphria Inc	1,764.5	80.7	6.130	543.3	694.2	851.8	1,144.2	1,215.8	(62.3)	66.4	130.7	255.5	321.8	-11.5%	9.6%	15.3%	22.3%	26.5%
ACB.TO	Aurora Cannabis Inc	1,451.0	(328.9)	13.180	247.9	294.9	415.3	556.0	714.6	(305.3)	(197.3)	17.2	77.6	173.7	-123.1%	-66.9%	4.1%	13.9%	24.3%
CWEB.TO	Charlotte's Web Holdings Inc	641.7	33.7	5.060	94.6	112.8	172.2	196.1	220.0	(4.5)	(13.5)	27.0	34.0	49.2	-4.8%	-12.0%	15.7%	17.3%	22.4%
HEXO.TO	Hexo Corp	443.5	106.1	0.960	47.5	80.1	134.6	193.8	248.0	(86.6)	(42.3)	(1.0)	25.0	49.4	-182.2%	-52.8%	-0.7%	12.9%	19.9%
OGI.TO	OrganiGram Holdings Inc	370.2	(1.6)	1.910	80.4	87.0	133.9	157.6	220.2	4.4	(18.9)	23.3	23.1	71.4	5.5%	-21.7%	17.4%	14.7%	32.4%
VLNS.TO	Valens Company Inc.	310.0	58.7	2.430	58.1	91.2	147.3	204.4	123.6	14.9	20.8	37.8	59.4	43.0	25.7%	0.0%	0.0%	0.0%	0.0%
TGOD.TO	Green Organic Dutchman Hold	157.1	6.6	0.410	11.0	29.6	63.7	121.5	NaN	(66.5)	(30.8)	(1.3)	8.9	25.0	-606.7%	-103.9%	-2.0%	7.3%	NaN
TRST.TO	CannTrust Holdings Inc	128.8	58.0	0.910	45.6	NaN	NaN	NaN	NaN	(15.3)	NaN	NaN	NaN	NaN	-33.5%	NaN	NaN	NaN	NaN
<b>Selected International Cannabis stocks - Mean</b>					2,029.4	2,681.6	3,922.5	5,624.3	5,772.2	(1,478.0)	(628.3)	49.6	737.7	1,340.7	-72.8%	-23.4%	1.3%	13.1%	23.2%
<b>Selected International Cannabis stocks - Median</b>															-76.7%	-21.7%	4.1%	13.9%	26.8%

Source: Refinitiv consensus estimates; Sequoia estimates for Althea AGH & ZLD; NaN means no available number. GWPH & TLRY are in USD. Canadian stocks are in C\$. Averages are either mean averages, or medians where there are a lot of negative numbers

Refinitiv Code	Company	Revenue Growth				EV/Sales					EV/Ebitda				P/E						
		FY1e	FY2e	FY3e	FY4e	FY0	FY1e	FY2e	FY3e	FY4e	FY1e	FY2e	FY3e	FY4e	FY1e	FY2e	FY3e	FY4e			
EOF.AX	Ecofibre Ltd	14.5%	NaN	NaN	NaN	13.9x	NaN	NaN	NaN	NaN	11.2x	6.9x	NaN	NaN	41.7x	25.0x	NaN	NaN			
PAL.AX	Palla Pharma Ltd	2.1%	21.3%	18.0%	NaN	2.5x	2.1x	1.7x	1.4x	NaN	21.5x	11.0x	6.8x	NaN	59.7x	14.9x	8.1x	NaN			
<b>Medicinal Cannabis Companies</b>																					
CAN.AX	Cann Group Ltd	-57.4%	1500.0%	100.0%	144.1%	98.6x	89.0x	5.6x	2.8x	1.1x	NaN	NaN	NaN	NaN	9.7x	NaN	NaN	NaN	NaN		
AGH.AX	Althea Group Holdings Ltd	580.0%	416.0%	132.0%	30.0%	91.6x	13.8x	2.7x	1.2x	0.7x	-4.7x	-13.6x	11.6x	4.6x	-4.9x	-12.9x	22.8x	9.2x			
AC8.AX	Auscann Group Holdings Ltd	NaN	NaN	NaN	NaN	82.3x	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN			
ZLD.AX	Zelira - Basic	NaN	2301.0%	408%	66%	NaN	460.6x	13.8x	3.7x	1.8x	-16.2x	-25.4x	15.9x	4.6x	-17.0x	-27.0x	17.6x	6.2x			
ZLD.AX	Zelira - Fully diluted	NaN	2301.0%	408%	66%	NaN	460.6x	13.8x	3.7x	1.8x	-16.2x	-25.4x	15.9x	4.6x	-17.0x	-27.0x	17.6x	6.2x			
BOT.AX	Botanix Pharmaceuticals Ltd	NaN	NaN	166.7%	NaN	691.0x	NaN	1.9x	0.7x	NaN	NaN	NaN	0.8x	NaN	NaN	NaN	1.6x	NaN			
MDC.AX	Medlab Clinical Ltd	NaN	NaN	50.0%	31.4%	8.1x	4.9x	5.8x	3.9x	2.9x	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN			
THC.AX	The Global Group Ltd	NaN	NaN	NaN	NaN	10.4x	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN			
MXC.AX	MGC Pharmaceuticals Ltd	NaN	NaN	NaN	NaN	70.6x	17.9x	5.9x	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN			
BDA.AX	BOD Australia Ltd	NaN	NaN	NaN	NaN	15.4x	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN			
EXL.AX	Elxinol Global Ltd	-48.1%	24.3%	25.1%	NaN	2.2x	1.1x	0.9x	0.7x	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN			
MMJ.AX	MMJ Group Holdings Ltd	NaN	NaN	NaN	NaN	-303.1x	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN			
CGB.AX	Cann Global Ltd	NaN	NaN	NaN	NaN	NULL	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN			
CPH.AX	Creso Pharma Ltd	NaN	NaN	NaN	NaN	5.9x	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN			
CP1.AX	CannPal Animal Therapeutics L	NaN	NaN	NaN	NaN	26.6x	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN			
RGI.AX	Roto-Gro International Ltd	NaN	NaN	NaN	NaN	15.6x	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN			
<b>Selected Aust Cannabis stocks - Median</b>					-48.1%	958.0%	116.0%	48.7%	15.6x	15.9x	5.6x	2.0x	1.5x	-10.5x	-19.5x	11.6x	4.6x	-11.0x	-20.0x	17.6x	7.7x
GWPH.O	GW Pharmaceuticals PLC	63.9%	55.0%	39.4%	19.7%	8.7x	5.6x	3.6x	2.6x	2.2x	NaN	10.6x	5.9x	3.7x	NaN	52.1x	13.3x	7.7x			
TLRY.O	Tilray Inc	33.4%	51.5%	46.4%	-13.9%	12.6x	5.5x	3.7x	2.5x	2.9x	NaN	89.1x	20.7x	9.1x	NaN	NaN	NaN	63.5x			
WEED.TO	Canopy Growth Corp	29.7%	52.0%	64.1%	-11.2%	15.0x	13.8x	9.1x	5.5x	6.2x	NaN	NaN	26.8x	12.5x	NaN	NaN	75.2x	60.3x			
CRON.TO	Cronos Group Inc	75.4%	114.5%	83.4%	-14.7%	49.4x	14.7x	6.9x	3.7x	4.4x	NaN	NaN	NaN	16.1x	NaN	NaN	NaN	NaN			
APHA.TO	Aphria Inc	27.8%	22.7%	34.3%	6.3%	3.0x	2.5x	2.0x	1.5x	1.4x	25.7x	13.1x	6.7x	5.3x	NaN	86.0x	13.5x	13.0x			
ACB.TO	Aurora Cannabis Inc	18.9%	40.8%	33.9%	28.5%	43.4x	6.0x	4.3x	3.2x	2.5x	NaN	103.5x	23.0x	10.3x	NaN	NaN	NaN	239.6x			
CWEB.TO	Charlotte's Web Holdings Inc	19.2%	52.7%	13.9%	12.2%	8.2x	4.2x	2.7x	2.4x	2.1x	NaN	17.4x	13.9x	9.6x	NaN	44.3x	19.2x	12.4x			
HEXO.TO	Hexo Corp	68.6%	68.0%	44.0%	28.0%	28.0x	5.7x	3.4x	2.4x	1.9x	NaN	NaN	18.4x	9.3x	NaN	NaN	NaN	96.0x			

## Valuation and Recommendation

We value ZLD on a discounted cash flow basis, because we are forecasting establishment losses for the next 2 years (FY20 & FY21) before becoming profitable and cash flow positive (so self-sustaining) in FY22.

Our DCF valuation is based on the following assumptions:

- 6 years of specific forecasts – for 2 indications only (Autism & Insomnia). We have not modelled the potential of another 3-5 new products at this stage. We will revise our forecasts for these as further information become available, and we get closer to launch.
- We assume a perpetual growth rate of 4.0% pa from FY25 onwards.
- Normal 30% tax rate from FY25 and onwards.
- Fully diluted for the Class A and Class B performance rights, where we expect the performance criteria will be achieved in 1H22 and 2H22 respectively.
- Our fully diluted DCF valuation is 13.9 cents per share.

### Sensitivity Analysis

Our model is highly sensitive to various assumptions we have made including price per unit, bottles per patient pa and market penetration. We think we have been conservative on each and every line item of our model. To demonstrate the sensitivities, we show a High and a Low case scenario based on a market penetration + / or – 1.0% over our base scenario.

Our base forecasts assume penetration rates by year 5 of 4.0-5.0% for Autism, and 2.5% to 5.0% for Insomnia, depending on the level of maturity of each country.

ZLD: DCF Scenario Analysis	Valuation \$m	Valuation Per Share
Low case: Market penetration 1.0% lower	190.8	\$ 0.097
<b>Base case (per detailed revenue model):</b>	<b>273.6</b>	<b>\$ 0.139</b>
Upper case: Market penetration 1.0% higher	356.5	\$ 0.181
Fully diluted share count used (m)		1,968.0

Source: Sequoia estimates

**We set our 12-month price target at \$0.14 per share.** ZLD is an early stage company with a lot of activity happening under the bonnet. COVID could potentially further delay some of the in-market launches, as well as delay new licencing negotiations. We think investors should adopt a 2-3 year time frame when considering investing in this stock, to allow extra time for possible delays, and to give the company sufficient time to demonstrate traction with its first two MC-based drugs, to be launched in multiple international markets.

**Our price target implies 169% upside from the current 5.2 cent share price.**

**We initiate coverage with a STRONG BUY recommendation.**

As explained in our Introduction on page 3 of this report, we believe Zelira Therapeutics Ltd (ZLD) is one of the most exciting stocks in the Australian medicinal cannabis sector. It is also one of the most exciting emerging companies that we cover. A relatively large number of catalyst are expected over the next 12-18 months (including distribution agreements on a state by state basis in the USA). This should see increasing interest in the stock.



## Sector performance

A few North American MC stocks have bounced over the last 3 months (positive performances shaded in blue below)(average bounce +3.9%) but the domestic MC stocks did not (down -9.6% for the last 3 months). And all MC stocks in our table remain significantly down over the last 12-months -58% domestically and -62% internationally. The sector continues to exhibit negative trends both in Australia and in the US and Canada. We think this is due to over-capacity concerns in North America, most companies still not being profitable or paying dividends, some questionable capital intensive business models, and some severe corporate governance blow ups (e.g. CannTrust Holdings's shares in Canada still suspended from trading after deceiving the regulator).

In Australia, Cann Group's (CAN) delays in financing the completion and fit-out of its large greenhouse and processing facility in Mildura has also been over-hanging the local sector. A \$14.3m placement at \$0.40 per share (a 51% discount on the previous close) and a \$25.9m share purchase plan have just been completed, raising \$40.2m in total. This may see improved performance for the domestic sector from here, particularly as TGA special access scheme approvals continue to boom (+428% on a rolling 12-mths basis to May 2020).

Whilst these issues obviously will put many investors off, we see it as an opportunity to dig a little deeper to try to identify stocks in a bombed-out sector capable of out-performing the sector, and also the market. We think ZLD is a break-out candidate with a very different strategy to most of the rest.

Refinitiv Code	Company	Market Cap \$m	Net Cash (Debt) FY0	Price 19/08/2020	-1 Mths	-3 Mths	-6 Mths	-12 Mths	Year End
EOF.AX	Ecofibre Ltd	387.8	7.2	2.750	22.2%	-7.4%	0.4%	-0.7%	30/06/2021
PAL.AX	Palla Pharma Ltd	112.3	(3.4)	0.895	2.3%	31.6%	5.9%	-15.4%	31/12/2020
<b>Medicinal Cannabis Companies</b>									
CAN.AX	Cann Group Ltd	95.3	46.4	0.490	-31.9%	-49.5%	-55.9%	-71.3%	30/06/2020
AGH.AX	Althea Group Holdings Ltd	85.2	14.9	0.365	2.8%	-7.5%	1.4%	-54.6%	30/06/2020
AC8.AX	Auscann Group Holdings Ltd	59.6	35.3	0.150	0.0%	-14.3%	-50.0%	-62.0%	30/06/2019
ZLD.AX	Zelira - Basic	59.4	1.9	0.052	1.9%	20.0%	-6.9%	-19.4%	30/06/2020
ZLD.AX	Zelira - Fully diluted	105.7	3.1	0.052	1.9%	20.0%	-6.9%	-19.4%	30/06/2020
THC.AX	Thc Global Group Ltd	44.0	2.8	0.255	-7.3%	-22.7%	-30.1%	-42.0%	31/12/2019
BOT.AX	Botanix Pharmaceuticals Ltd	52.3	4.7	0.054	5.9%	25.6%	-40.7%	-74.9%	30/06/2020
MDC.AX	Medlab Clinical Ltd	46.0	10.5	0.165	17.9%	-21.4%	-45.9%	-67.0%	30/06/2019
MXC.AX	MGC Pharmaceuticals Ltd	42.3	2.4	0.026	8.3%	4.0%	-3.7%	-48.0%	30/06/2020
BDA.AX	BOD Australia Ltd	25.0	2.8	0.275	5.8%	-16.7%	1.9%	-42.7%	30/06/2019
EXL.AX	Elixinol Global Ltd	22.8	15.6	0.165	3.1%	-26.7%	-65.6%	-92.4%	31/12/2020
MMJ.AX	MMJ Group Holdings Ltd	21.8	95.5	0.095	-9.5%	-17.4%	-13.6%	-62.0%	30/06/2020
CGB.AX	Cann Global Ltd	16.1	(1.2)	0.005	0.0%	-28.6%	-58.3%	-86.5%	30/06/2019
CP1.AX	CannPal Animal Therapeutics Ltd	10.7	3.3	0.115	-14.8%	29.2%	-8.0%	-36.1%	30/06/2019
CPH.AX	Creso Pharma Ltd	15.3	(0.4)	0.042	40.0%	-38.2%	-65.0%	-90.0%	31/12/2019
RGI.AX	Roto-Gro International Ltd	8.1	3.0	0.054	10.2%	-10.0%	-55.0%	-68.2%	30/06/2019
<b>Selected Aust Cannabis stocks - Median</b>		<b>709.4</b>	<b>240.6</b>		<b>2.1%</b>	<b>-9.6%</b>	<b>-31.4%</b>	<b>-58.5%</b>	
GWPH.O	GW Pharmaceuticals PLC	3,334.5	521.3	107.070	-21.9%	-10.9%	-13.8%	-29.0%	31/12/2020
TLRY.O	Tilray Inc	887.7	(347.6)	6.980	-4.8%	-12.3%	-59.2%	-76.2%	31/12/2020
WEED.TO	Canopy Growth Corp	8,280.0	1,434.1	22.300	-8.5%	-0.1%	-23.3%	-38.2%	31/03/2021
CRON.TO	Cronos Group Inc	2,547.2	1,506.0	7.280	-20.4%	-6.1%	-24.0%	-53.4%	31/12/2020
ACB.TO	Aurora Cannabis Inc	1,451.0	(328.9)	13.180	-18.4%	-14.1%	-49.6%	-86.0%	30/06/2020
APHA.TO	Aphria Inc	1,764.5	80.7	6.130	-11.5%	30.4%	9.5%	-26.2%	31/05/2021
CWEB.TO	Charlotte's Web Holdings Inc	641.7	33.7	5.060	0.0%	-16.2%	-39.3%	-79.4%	31/12/2020
HEXO.TO	Hexo Corp	443.5	106.1	0.960	-3.0%	26.3%	-51.3%	-82.9%	31/07/2020
OGI.TO	OrganiGram Holdings Inc	370.2	(1.6)	1.910	-9.5%	-6.8%	-46.6%	-72.2%	31/08/2020
VLNS.TO	Valens Company Inc.	310.0	58.7	2.430	16.3%	3.8%	-34.7%	-31.2%	30/11/2020
TGOD.TO	Green Organic Dutchman Holdings Ltd	157.1	6.6	0.410	1.2%	49.1%	-24.1%	-87.1%	31/12/2020
TRST.TO	CannTrust Holdings Inc	128.8	58.0	Suspended				-65.0%	31/12/2019
<b>Selected International Cannabis stocks - Mean</b>		<b>20,316.2</b>	<b>3,127.2</b>		<b>-7.3%</b>	<b>3.9%</b>	<b>-32.4%</b>	<b>-60.6%</b>	

Source: Refinitiv; Note GWPH.O and TLRY.O are in USD. Other international stocks and ETFs are in C\$

Positive TSR performances highlighted in blue; Negative TSRs in pink

## Directors and Senior Management

### *US-based directors:*

#### **Osagie Imasogie – Non-executive Chairman** (Appointed 2 December 2019)

US-based (Greater Philadelphia area). Osagie has over 30 years of experience in the fields of law, finance and business management, healthcare and the pharmaceutical industry.

Osagie (and fellow director Lisa Gray) are both co-founders and Managing Partners of PIPV Capital (2004 to present, 16 years), a leading US-based private equity firm that has deployed over US\$1.0 billion across the global life sciences sector.

Osagie conceptualized and established GSK Ventures and was its founding Vice President (2000 to 2004). Osagie led GSK Ventures in concluding over thirty worldwide transactions within a three-year period, in which he invested Glaxo SmithKline R&D non-progressed assets into various companies and/or as the basis of starting new companies.

Prior to this role within GSK, Osagie was a Vice President for Product Development Strategy at SmithKline Beecham.

Prior to this role at SmithKline, Osagie was the Founding Senior Vice President for Business Development and General Counsel at Endo Pharmaceuticals Inc.

Osagie previously served as a DuPont Merck Vice President for International Sales and Marketing and General Counsel to DuPont Merck's International, Manufacturing and Generic Drug Divisions.

Osagie has also been a Price Waterhouse Corporate Finance Partner as well as a practicing attorney with a leading U.S. Law Firm, Schnader, Harrison, Segal & Lewis, in the fields of corporate, corporate finance, taxation and intellectual property law.

Osagie was a co-Founder and former President, CEO and Chairman of Ception Therapeutics, Inc., a biopharmaceutical company focused on the discovery and development of novel products to address unmet medical needs which was sold to Cephalon/Teva. Osagie was also the Founder of Trigenesis Therapeutics Inc., a biopharmaceutical company focused on developing pharmaceutical products for the dermatological market which was sold to Dr. Reddy's Pharmaceuticals.

Osagie was the Founder and Chairman of the Board of Directors of Ilera Healthcare. In addition, he serves on the Board of StoneRidge Investment Partners, a Money Management Firm with over \$2 billion under management of the Haverford Trust Company with over \$7 billion under management and of FS-KKR (NYSE: FSK) with over \$17 billion under management/advice.

Qualifications: Osagie holds post-graduate degrees from the London School of Economics and the University Of Pennsylvania Law School, and is a member of the New York State Bar. Law degree from University of Ife, Nigeria. In addition, Osagie is an Intellectual Property Adjunct Professor at the University of Pennsylvania Law School and Chairman of the Law School board, as from January 2021, in addition to being a member of the Executive Committee of the University of Pennsylvania - Board of Trustees.

#### **Dr Oludare Odumosu - CEO – USA** (Appointed 2 Dec 2019); Lives: Greater Philadelphia region.

2011 - Jan 2020 (9 years): Senior Manager, Business Development at Iroko Pharmaceuticals LLC (a PIPV portfolio company). Oludare was also the founding Chief Operating Officer and Chief Scientific Officer of Ilera Healthcare (another PIPV company)(July 2017 to Jan 2019) until its sale to TerrAscend Corp.

2007- 2011 (4 years): Biomedical Researcher – Centre for Health Disparities and Molecular Medicine. 2005 – 2007 (2 years) – Research Consultant, Loma Linda University School of Public Health.

Chairman Osagie told us he has known Oludare his whole life. You don't get a better reference than that!

Qualifications: Bachelor of Science (Biology). Master in Public Health, Epidemiology and Biostatistics. PhD, Biochemistry.

### **Lisa Gray – Non-executive Director** (appointed 2 Dec 2019)

Co-founder and Managing Partner of PIPV Capital (2004 to present, 16 years).

- Ilera Healthcare (Pennsylvania), Ilera Hollistic (Louisiana), Ilera Therapeutics – Co-founder and CFO (2017 – Present). Established a grower/ processor and dispensary in Pennsylvania from initial licence, built to profitability and eventual sale to TerrAscend (TER.CN). Established a grower/ processor in Louisiana with plans to be operational within a year (Ilera Hollistic). Established Ilera Therapeutics, a global MC healthcare company (now merged with Zelda to form Zelira).
- COO - GSK Ventures (2000 – 2004, 4 years). Together with Osagie Imasogie, established and built the team to create value from GSK's non-progressed development stage assets. The group did ~30 transactions primarily asset for equity investment transactions in small to mid-sized companies, spin-outs and traditional licencing deals.
- GlaxoSmithKline (1991 -2000, 9 years) – various roles: Group Director, Product Development Strategy; Head Financial Planning; International Operations Consultant.
- Coopers & Lybrand (1988-1991, 3 years) – Auditor and Consultant.

Qualifications: BSc. Accountancy, MBA Finance, Post-Graduate Marketing Management.

### *Australian-based Directors*

#### **Harry Karelis – Deputy Chairman and non-executive director** (Appointed 17 November 2016)

Mr Harry Karelis is the Chairman of Gemelli Group, a privately held investment group involved in a range of projects and has in excess of 25 years diversified experience in the financial services sector including fundamental analysis, funds management and private equity investing and has been involved in numerous cross border activities across a number countries.

Other directorships:

- Chairman: HAPA pharm GmbH Nov 2018 – Present (1 yr 9 mths) Germany. HAPA is a vertically integrated medicinal cannabis company operating large scale cultivation facilities as well as its own GMP rated pharmaceutical manufacturing operations (EU-GMP certification expected late 2020).
- Founding Director: Health House International (private coy) Jun 2017 – Nov 2019 (2 yrs 6 mths) Australia & UK. Health House is building a distribution network for pharmaceutical grade cannabis medical products in Australasia and the UK.
- Founding Director: Sapien Cyber Nov 2016 – Present (3 yrs 9 mths) Perth
- Founding Director AusCann Limited (AC8) Sep 2014 – Dec 2017 (3 yrs 4 mths). AusCann was one of Australia's early movers in the medicinal cannabis sector.

Qualifications: Bachelors and Honours in Science majoring in Biochemistry and Microbiology; Masters in Business Administration; Fellow of the Financial Services Institute of Australia; Fellow of the Australian Institute of Company Directors; Chartered Financial Analyst (CFA) from the CFA Institute in the United States.

**Dr Richard Hopkins – CEO – Non-US** (Appointed 16 July 2018)

Richard is an experienced bio-pharmaceutical executive with over 11 years in corporate leadership roles with public biotechnology companies. He has an established track record in drug development of novel cancer therapies and has strong experience with corporate strategy, business development and intellectual property matters. During his career, Dr Hopkins has managed and overseen several strategic alliance and licensing deals with multiple global pharmaceutical partners. Dr Hopkins has served as Chair of the Western Australian Ausbiotech Committee and is an author on over 30 peer-reviewed publications and is an inventor on 17 patents and patent applications.

- MD (ex-US): Zelira Therapeutics (ZLD) Jul 2018 – Present (2 yrs 1 mth)
- CEO: PharmAust Pharmaceuticals Ltd (PAA) Mar 2017 – May 2018 (1 yr 3mths)
- CEO: Phylogica (PYC) Jul 2013- Oct 2016 (3 yrs 4 mths)
- Chief Scientific Officer: Phylogica (PYC) Jan 2013 - Jun 2013 (6 mths)
- VP Research & COO: Phylogica (PYC) Jan 2009 – Dec 2012 (4 yrs)

Qualifications: PhD in Molecular Biology.

**Jason Peterson – Non-executive director** (Appointed 17 November 2016)

Mr Jason Peterson is a director, major shareholder and Head of Corporate of boutique Perth-based stock-broking and corporate advisory firm, CPS Capital Group (since Apr 2009; 11 yrs 4 mths).

- Managing Director & Chief Investment Officer: Celtic Capital Pty Ltd (Family Office) Jul 2006 – Present (14 yrs 1 mth).
- He has more than 20 years of experience in the financial advisory sector working in both local and international stockbroking companies such as Patersons Securities Limited, Tolhurst Group, and Merrill Lynch Perth. He specialises in corporate structuring, capital raisings, corporate and strategic advice to small and medium size companies and reverse takeovers.

Qualifications: Bachelor of Commerce; Graduate Diploma of Finance.

*Former Directors***Mara Gordon - former NED** (17 November 2016 – 2 December 2019), US-based.

Ms Gordon remains on the ZLD Advisory Board. She is also ZLD's #3 shareholder with 44.1m shares (4.6%). Another positive sign that she has retained her shareholding.

Ms Mara Gordon specializes in the development of treatment protocols utilizing Bio Pharmaceutical-grade cannabis extracts for seriously ill patients in California. She co-founded Aunt Zelda's, Calla Spring Wellness, and Zelda Therapeutics in order to provide real outcomes for patients with serious diseases.

Prior to Aunt Zelda's, Ms Gordon worked as a process engineer, helping Fortune 500 companies create intelligent software by utilizing the Rational Unified Process. This experience has enabled her to take a detailed and scientific approach to utilizing cannabis as a Bio Pharmaceutical grade treatment.

Ms Gordon is a Director of North Bay Credit Union and sits on numerous advisory boards, including CannPal Animal Therapeutics (ASX: CP1), and Patients Out of Time (US not-for-profit cannabis advocacy group). Ms Gordon is a cannabis entrepreneur, and researcher who openly shares her knowledge about the therapeutic benefits of the cannabis plant. She has appeared on stage in front of audiences internationally and was featured in the films *The Medicine in Marijuana*, *Mary Janes: Women of Weed*, and the award-winning documentary *Weed the People*.

Qualifications: Bachelor of Arts (Political Science).

### Dr Stewart Washer – former NED (17 November 2016 – 2 December 2019)

Stewart has 25 years of CEO and Board experience in medical and agrifood biotech companies. He is currently the Chairman of Emerald Clinics Ltd (ASX: EMD), cannabis clinics collecting quality patient data and Chair of Orthocell Ltd (ASX:OCC), a regenerative medicine company, Founding Director of Cynata Therapeutics Ltd (ASX:CYP) which is developing global stem cell therapies. He is also a founder of AusCann Ltd (ASX: AC8), which is developing novel cannabis pharmaceuticals.

Stewart has previously worked in life science Fund Management with BioScience Managers in Australia and the Nestlé Fund Inventages. Stewart has held a number of Board positions in the past, including Chairman of Hatchtech Pty Ltd that was sold in 2017 for A\$279m and was a Director of iCeutica that was sold in 2011 for A\$60m to a US Pharma (Iroko Pharmaceuticals – A PIPV portfolio company). He was also a Senator with Murdoch University and was a Director of AusBiotech Ltd (unlisted industry advocate).

Qualifications: Bachelor of Science (Hon) PhD.

The Washer family is the #4 shareholder in ZLD with 35.2m shares (3.6% of the company). Another positive sign that the Washer family have retained their shareholding.

#### Medical Advisory Board

Even more depth to ZLD’s strong management team in the US and Australia. ZLD is extremely well connected and well informed.

- Ms Mara Gordon (Aunt Zelda; major shareholder; former director)(US-based)
- Professor David Casaratt (US-based)
- Dr Dustin Sulak (US-based)
- Dr Ethan Russo (US-based) – Paediatric and adult neurologist, psychopharmacology researcher, and former advisor to GW Pharmaceuticals

#### ZLD’s new Board

Good long history of directors getting along and working together.

Year	Osagie Imasogie (US-based)	Lisa Gray (US-based)	Oludare Odumusu (US-based)	Harry Karelis (Aust-based)	Dr Richard Hopkins (Aust-based)	Jason Peterson (Aust-based)
2020	Phoenix IP Ventures	Phoenix IP Ventures	Zelira USA	Gemelli; ZLD; Health House Int (Aust & UK); HAPA Germany	Zelira ZLD	CPS Capital; Celtic Capital; ZLD
2019	Phoenix IP Ventures	Phoenix IP Ventures	Iroko Pharma	Gemelli; ZLD; Health House Int (Aust & UK); HAPA Germany	Zelira ZLD	CPS Capital; Celtic Capital; ZLD
2018	Phoenix IP Ventures	Phoenix IP Ventures	Iroko Pharma	Gemelli; ZLD; Health House Int (Aust & UK); HAPA Germany	Zelira ZLD	CPS Capital; Celtic Capital; ZLD
2017	Phoenix IP Ventures	Phoenix IP Ventures	Iroko Pharma	Gemelli; AC8; ZLD; Health House Int (Aust & UK)	PharmAust PAA	CPS Capital; Celtic Capital; ZLD
2016	Phoenix IP Ventures	Phoenix IP Ventures	Iroko Pharma	Gemelli; Auscan AC8; Zeldia ZLD	Phylogia PYC	CPS Capital; Celtic Capital; ZLD
2015	Phoenix IP Ventures	Phoenix IP Ventures	Iroko Pharma	Gemelli; Auscan AC8	Phylogia PYC	CPS Capital; Celtic Capital
2014	Phoenix IP Ventures	Phoenix IP Ventures	Iroko Pharma	Gemelli Group (Family Office)	Phylogia PYC	CPS Capital; Celtic Capital
2013	Phoenix IP Ventures	Phoenix IP Ventures	Iroko Pharma	Gemelli Group (Family Office)	Phylogia PYC	CPS Capital; Celtic Capital
2012	Phoenix IP Ventures	Phoenix IP Ventures	Iroko Pharma	Gemelli Group (Family Office)	Phylogia PYC	CPS Capital; Celtic Capital
2011	Phoenix IP Ventures	Phoenix IP Ventures	Iroko Pharma	Gemelli Group (Family Office)	Phylogia PYC	CPS Capital; Celtic Capital
2010	Phoenix IP Ventures	Phoenix IP Ventures	BioMed research	Gemelli Group (Family Office)	Phylogia PYC	CPS Capital; Celtic Capital
2009	Phoenix IP Ventures	Phoenix IP Ventures	BioMed research	Gemelli Group (Family Office)	Phylogia PYC	CPS Capital; Celtic Capital
2008	Phoenix IP Ventures	Phoenix IP Ventures	BioMed research	Gemelli Group (Family Office)	Researcher	Tolhurst; Celtic Capital
2007	Phoenix IP Ventures	Phoenix IP Ventures	Telemedicine	Gemelli Group (Family Office)	Researcher	Tolhurst; Celtic Capital
2006	Phoenix IP Ventures	Phoenix IP Ventures	Telemedicine	Gemelli Group (Family Office)	Researcher	Tolhurst; Celtic Capital
2005	Phoenix IP Ventures	Phoenix IP Ventures	Telemedicine	Gemelli Group (Family Office)	Researcher	Tolhurst
2004	Phoenix IP Ventures	Phoenix IP Ventures	Calvin Uni (BSc Biology)	Gemelli Group (Family Office)	Researcher	Tolhurst
2003	GSK Ventures	GSK Ventures	↓	Challenger CGF - Portfolio Manager	Researcher	Tolhurst
2002	GSK Ventures	GSK Ventures		Challenger CGF - Portfolio Manager	Researcher	Tolhurst
2001	GSK Ventures	GSK Ventures		Challenger CGF - Portfolio Manager	Researcher	Tolhurst
2000	GSK Ventures	GSK Ventures		Challenger CGF - Portfolio Manager	Researcher	Merrill Lynch
1999	Endo Pharmaceuticals	SmithKline Beecham		Challenger CGF - Portfolio Manager	Post doctoral research	Merrill Lynch
1998	Endo Pharmaceuticals	SmithKline Beecham		Challenger CGF - Portfolio Manager	Post doctoral research	Pattersons
1997	Endo Pharmaceuticals	SmithKline Beecham		Challenger CGF - Portfolio Manager	Murdoch University PhD	Pattersons
1996	DuPont Merck	SmithKline Beecham		Clariden Leu, Singapore, Portfolio Management	↓	D&D Tolhurst
1995	DuPont Merck	SmithKline Beecham		Clariden Leu, Singapore, Portfolio Management		
1994	Genesis Corp	SmithKline Beecham		Clariden Leu, Singapore, Portfolio Management		
1993	Genesis Corp	SmithKline Beecham		University of WA (MBA)		Curtin University B.Com
1992	Genesis Corp	SmithKline Beecham		↓		↓
1991	Price Waterhouse	SmithKline Beecham		University of WA B.Sc (Hons) Microbiology and Biochemistry		
1990	Price Waterhouse	Coopers & Lybrand		↓		
1989	Price Waterhouse	Coopers & Lybrand				
1988	Attorney At Law	Coopers & Lybrand				
1987	Attorney At Law	Penn. State Uni (MBA)				
1986	Attorney At Law	↓				
1985	Attorney At Law	Vilanova Uni (B.Sc Accountancy)				
1985	Uni of Pennsylvania (LL.M, Intellectual Property)					
1980	Uni of Ife, Nigeria (Law)					

Notes: We highlight the significant period of time that ZLD’s US directors have worked together (highlighted in blue)  
Osagie & Lisa worked together for 20 years

Oludare worked at Iroko Pharmaceuticals and Ilera Healthcare and Zelira which are all PIPV investment portfolio companies  
Australian directors team also has 5 + 3 + 5 years experience working together (highlighted in pink)

## Directors Shareholdings

- ZLD's directors collectively own ~14% of the company (basic, undiluted).
- If all options are exercised, and the performance rights targets are achieved, this will increase to ~26% of the company, on our estimates shown below.
- A significant portion of this came from the merger of Ilera Therapeutics with Zeld (ZLD) to form Zelira Therapeutics Limited.
- All directors have / will have significant holdings, so should be very motivated to perform and achieve good performance for ZLD.

ZLD - Directors Shareholdings & Other	Latest	% of Coy (Basic)	Options	Performance Rights re: Ilera acqn	Performance Rights issued FY21	Total (Fully Diluted)	Total (Fully Diluted)
<b>US-based Directors</b>							
<b>1. Osagie Imasogie, Chairman (US-based) app 4/12/19</b>							
a. Ordinary shares	16,413,065	1.4%				<b>16,413,065</b>	
c. Class A performance rights (23/12/24)				52,391,228		52,391,228	
d. Class B performance rights (23/12/24)				52,391,228		52,391,228	
c. Class A performance rights (Subject to approval at GM on 17/9/20)					6,250,000	6,250,000	
c. Class B performance rights (Subject to approval at GM on 17/9/20)					6,250,000	6,250,000	<b>133,695,521</b>
							6.6%
<b>2. Dr Oludare Odumosu (CEO and MD USA) app 4/12/19</b>							
a. Ordinary shares	5,500,655	0.5%				<b>5,500,655</b>	
b. Options (\$0.10; 21/7/23)			5,000,000			5,000,000	
b. Options (\$0.15; 21/7/23)			5,000,000			5,000,000	
b. Options (\$0.20; 21/7/23)			5,000,000			5,000,000	
b. Options (\$0.28; 21/7/23)			5,000,000			5,000,000	
b. Options (\$0.30; 21/7/23)			5,000,000			5,000,000	
c. Class A performance rights (23/12/24)				17,558,328		17,558,328	
d. Class B performance rights (23/12/24)				17,558,328		17,558,328	
							<b>65,617,311</b>
							3.2%
<b>3. Lisa Gray (NED, US-based) app 4/12/19</b>							
a. Ordinary shares	16,413,065	1.4%				16,413,065	
c. Class A performance rights (23/12/24)				52,391,228		52,391,228	
d. Class B performance rights (23/12/24)				52,391,228		52,391,228	
c. Class A performance rights (Subject to approval at GM on 17/9/20)					6,250,000	6,250,000	
c. Class B performance rights (Subject to approval at GM on 17/9/20)					6,250,000	6,250,000	<b>133,695,521</b>
							6.6%
<b>Australian-based Directors</b>							
<b>4. Harry Karelis (Deputy Chair)</b>							
a. Ordinary shares	49,587,000	4.3%				<b>49,587,000</b>	
b. Options (\$0.03125; 17/11/21)			6,000,000			6,000,000	
c. Class A performance rights (23/12/24)				6,250,000		6,250,000	
d. Class B performance rights (23/12/24)				6,250,000		6,250,000	
							<b>68,087,000</b>
							3.3%
<b>5. Dr Richard Hopkins (MD - Non-US) app 16/7/18</b>							
a. Ordinary shares	1,700,000	0.1%				<b>1,700,000</b>	
b. 25.0m options (\$0.10, \$0.15, \$0.20, \$0.28 and \$0.30; 19/02/22)			25,000,000			25,000,000	
c. Class A performance rights (23/12/24)				6,250,000		6,250,000	
d. Class B performance rights (23/12/24)				6,250,000		6,250,000	
							<b>39,200,000</b>
							1.9%
<b>6. Jason Peterson (NED)</b>							
a. Ordinary shares	74,593,965	6.5%				<b>74,593,965</b>	
b. Options (\$0.03125; 17/11/21)			8,000,000			8,000,000	
c. Class A performance rights (23/12/24)				6,250,000		6,250,000	
d. Class B performance rights (23/12/24)				6,250,000		6,250,000	
							<b>95,093,965</b>
							4.7%
<b>Total Directors</b>	<b>164,207,750</b>	<b>14.4%</b>	<b>64,000,000</b>	<b>282,181,568</b>	<b>25,000,000</b>	<b>535,389,318</b>	<b>535,389,318</b>
							26.3%
<b>Total Company</b>	<b>1,142,285,966</b>	<b>100.0%</b>	<b>64,000,000</b>	<b>282,181,568</b>	<b>25,000,000</b>	<b>535,389,318</b>	<b>2,032,623,277</b>
<b>Issued to others (non-Directors)</b>							
c. Class A performance rights (23/12/24)				239,087,866			
d. Class B performance rights (23/12/24)				239,087,866			
<b>Total Issued re acquisition of Ilera Therapeutics</b>	(included above)						
a. Ordinary shares	<b>113,601,290</b>						
c. Class A performance rights (23/12/24)				<b>362,620,322</b>			
d. Class B performance rights (23/12/24)				<b>362,620,322</b>			

Source: ASX announcements

## Major Shareholders

We show below the latest Top 10 shareholders for ZLD.

ZLD has only one institutional shareholder in the Top 10 – Merchant Funds Management Pty Ltd, based in Perth at 1.9%. The Top 5 are all long –term ZLD holders / insiders, and the second 5 are all Ilera Therapeutics vendors or associates who have worked together at GSK Ventures and PIPV Capital in the US.

There should be strong motivation for these major shareholders.

Major Shareholders		Latest Value \$	Latest No.	%
1	Sunset Capital Management Pty Ltd (Jason Peterson, NED)	\$ 3,878,886	74,593,952	6.53%
2	Gemelli Noms (Harry Karelis, Deputy Chair)	\$ 2,578,559	49,587,680	4.34%
3	Mara Gordon (Co-founder, ex NED, US-based)	\$ 2,295,401	44,142,326	3.86%
4	Mal Washer	\$ 1,830,332	35,198,688	3.08%
5	<b>Capricorn (Merchant Leaders Fund)</b>	\$ 1,112,280	21,390,000	1.87%
6	Osagie Imasogie (Chairman, US-based)(Ilera co-founder)	\$ 853,479	16,413,065	1.44%
7	Lisa Gray (NED, US-based)(Ilera co-founder)	\$ 853,479	16,413,065	1.44%
8	Torsten Geers (Ilera co-founder)	\$ 853,479	16,413,065	1.44%
9	Zoltan Kerekes (Ilera / Managing Partner PIPV Capital))	\$ 853,479	16,413,065	1.44%
10	Sharri Rochlin (presume Ilera connection)	\$ 853,479	16,413,065	1.44%

Source: ZLD Annual report; Refinitiv

## Appendix 1 – Autism – Total Addressable Market ~ 4m patients

Country / State	Population (at 1/7/19)	Adult Population 18 yrs & over	Adult Population %	MC Patient Numbers (Note 3)	MC Penetration Rate %	Autism Prevalence @1.0% (Adults)	Autism Prevalence @1.5% (Minors)	Autism Total Addressable Market (TAM)	Rec. Cannabis Legal ?	Autism Friendly State ? (Note 4)
<b>Australia</b>	<b>25,357,553</b>	<b>19,746,647</b>	78%	50,000	0.2%	197,466	84,164	281,630		281,630
<b>Germany</b>	<b>83,783,942</b>	<b>69,556,400</b>	83%	120,000	0.1%	695,564	213,413	908,977		908,977
<b>USA - Autism / MC friendly states</b>										
1 .California	39,512,223	30,617,582	77.5%	1,920,294	4.9%	306,176	133,420	439,595	Yes	439,595
2 .Texas	28,995,881	21,596,071	74.5%	Low THC only		215,961	110,997	326,958		326,958
3 .Florida	21,477,737	17,247,808	80.3%	306,185	1.4%	172,478	63,449	235,927		235,927
4 .New York	19,453,561	15,425,262	79.3%	114,947	0.6%	154,253	60,424	214,677		214,677
5 .Pennsylvania	12,801,989	10,167,376	79.4%	102,000	0.8%	101,674	39,519	141,193		141,193
6 .Illinois	12,671,821	9,853,946	77.8%	113,458	0.9%	98,539	42,268	140,808		140,808
7 .Ohio	11,689,100	9,111,081	77.9%	94,356	0.8%	91,111	38,670	129,781		129,781
8 .Georgia	10,617,423	8,113,542	76.4%	Coming		81,135	37,558	118,694		118,694
9 .Michigan	9,986,857	7,842,924	78.5%	261,989	2.6%	78,429	32,159	110,588		110,588
10 .New Jersey	8,882,190	6,943,612	78.2%	51,000	0.6%	69,436	29,079	98,515		98,515
11 .Washington	7,614,893	5,951,832	78.2%	44,532	0.6%	59,518	24,946	84,464	Yes	84,464
12 .Arizona	7,278,717	5,638,481	77.5%	230,317	3.2%	56,385	24,604	80,988		80,988
13 .Massachusetts	6,892,503	5,539,703	80.4%	69,008	1.0%	55,397	20,292	75,689	Yes	75,689
14 .Missouri	6,137,428	4,766,843	77.7%	44,097	0.7%	47,668	20,559	68,227		68,227
15 .Maryland	6,045,680	4,710,993	77.9%	99,912	1.7%	47,110	20,020	67,130		67,130
16 .Colorado	5,758,736	4,499,217	78.1%	81,722	1.4%	44,992	18,893	63,885	Yes	63,885
17 .Minnesota	5,639,632	4,336,475	76.9%	34,529	0.6%	43,365	19,547	62,912		62,912
18 .Louisiana	4,648,794	3,561,164	76.6%	4,350	0.1%	35,612	16,314	51,926		51,926
19 .Oregon	4,217,737	3,351,175	79.5%	24,015	0.6%	33,512	12,998	46,510	Yes	46,510
20 .Oklahoma	3,956,971	3,004,733	75.9%	313,450	7.9%	30,047	14,284	44,331		44,331
21 .Connecticut	3,565,287	2,837,847	79.6%	41,212	1.2%	28,378	10,912	39,290		39,290
22 .Utah	3,205,958	2,274,774	71.0%	3,000	0.1%	22,748	13,968	36,716		36,716
23 .Iowa	3,155,070	2,428,229	77.0%	Coming		24,282	10,903	35,185		35,185
24 .Nevada	3,080,156	2,387,517	77.5%	14,633	0.5%	23,875	10,390	34,265	Yes	34,265
25 .Arkansas	3,017,804	2,317,649	76.8%	50,377	1.7%	23,176	10,502	33,679		33,679
26 .New Mexico	2,096,829	1,620,991	77.3%	82,147	3.9%	16,210	7,138	23,347		23,347
27 .Hawaii	1,415,872	1,116,004	78.8%	27,820	2.0%	11,160	4,498	15,658		15,658
28 .New Hampshire	1,359,711	1,104,458	81.2%	9,940	0.7%	11,045	3,829	14,873		14,873
29 .Maine	1,344,212	1,095,370	81.5%	65,368	4.9%	10,954	3,733	14,686		14,686
30 .Montana	1,068,778	840,190	78.6%	36,422	3.4%	8,402	3,429	11,831		11,831
31 .Rhode Island	1,059,361	854,866	80.7%	16,218	1.5%	8,549	3,067	11,616		11,616
32 .Delaware	973,764	770,192	79.1%	11,235	1.2%	7,702	3,054	10,756		10,756
33 .North Dakota	762,062	581,891	76.4%	2,868	0.4%	5,819	2,703	8,521		8,521
34 .Alaska	731,545	551,562	75.4%	404	0.1%	5,516	2,700	8,215	Yes	8,215
35 .District of Columbia	705,749	577,581	81.8%	6,309	0.9%	5,776	1,923	7,698	Yes	7,698
36 .Vermont	623,989	509,984	81.7%	5,209	0.8%	5,100	1,710	6,810		6,810
<b>Less: Pennsylvania launched by Others</b>	<b>- 12,801,989</b>	<b>- 10,167,376</b>	<b>81.7%</b>	<b>- 102,000</b>	<b>0.8%</b>	<b>- 101,674</b>	<b>- 39,519</b>	<b>- 141,193</b>		<b>- 141,193</b>
	<b>249,644,031</b>	<b>193,981,549</b>	<b>77.7%</b>	<b>4,181,323</b>	<b>1.7%</b>	<b>1,939,815</b>	<b>834,937</b>	<b>2,774,753</b>		<b>2,774,753</b>
1 Average state	7,205,742									
<b>Expected current target markets (excluding Pennsylvania - launched by another)</b>	<b>358,785,526</b>	<b>283,284,596</b>	<b>79.0%</b>	<b>4,351,323</b>	<b>1.2%</b>	<b>2,832,846</b>	<b>1,132,514</b>	<b>3,965,360</b>		<b>3,965,360</b>
<b>Other US States - May become accessible</b>										
37 .North Carolina	10,488,084	8,187,369	78.1%	-		81,874	34,511	116,384		
38 .Virginia	8,535,519	6,674,671	78.2%	-		66,747	27,913	94,659		
39 .Tennessee	6,829,174	5,319,123	77.9%	-		53,191	22,651	75,842		
40 .Indiana	6,732,219	5,164,245	76.7%	-		51,642	23,520	75,162		
41 .Wisconsin	5,822,434	4,555,837	78.2%	-		45,558	18,999	64,557		
42 .South Carolina	5,148,714	4,037,531	78.4%	-		40,375	16,668	57,043		
43 .Alabama	4,903,185	3,814,879	77.8%	-		38,149	16,325	54,473		
44 .Kentucky	4,467,673	3,464,802	77.6%	-		34,648	15,043	49,691		
45 .Mississippi	2,976,149	2,277,566	76.5%	-		22,776	10,479	33,254		
46 .Kansas	2,913,314	2,213,064	76.0%	-		22,131	10,504	32,634		
47 .Nebraska	1,934,408	1,458,334	75.4%	-		14,583	7,141	21,724		
48 .West Virginia	1,792,147	1,432,580	79.9%	-		14,326	5,394	19,719		
49 .Idaho	1,787,065	1,338,864	74.9%	-		13,389	6,723	20,112		
50 .South Dakota	884,659	667,558	75.5%	-		6,676	3,257	9,932		
51 .Wyoming	578,759	445,025	76.9%	-		4,450	2,006	6,456		
<b>15 Potential US States</b>	<b>65,793,503</b>	<b>51,051,448</b>	<b>77.6%</b>	<b>-</b>	<b>-</b>	<b>510,514</b>	<b>221,131</b>	<b>731,645</b>		

Source: US Census Bureau, December 2019

Source 2: Prevalence per: <https://www.autism-society.org/what-is/facts-and-statistics/>

Source 3: <https://www.mpp.org/issues/medical-marijuana/state-by-state-medical-marijuana-laws/medical-marijuana-patient-numbers/>

Source 4: <http://www.mammausa.org/autism-friendly-states.html>

RCI: Recreational cannabis legal in this state



## Appendix 2 – PIPV Capital - Background

Two of ZLD's six directors came from PIPV Capital and GSK Ventures, and a third (Oludare) came from two of PIPV's portfolio companies (Ilera Healthcare and Iroko Pharmaceuticals) so we think it makes sense to dig a little deeper into PIPV. Brief discussion below.

### team



**Osagie Imasogie**  
Senior Managing Partner  
& Founder



**Lisa Gray**  
Managing Partner &  
Founder



**Zoltan Kerekes**  
Managing Partner &  
Founder

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**Brian Jones, Ph.D.**  
Vice President



**Brian Warrington,  
Ph.D.**  
Venture Partner

#### Osagie Imasogie

- Co-founder PIPV Capital with Lisa Gray and Zoltan Kerekes
- Conceptualised and co-founded GSK Ventures for Glaxo , completing over 30 deals (2000-2004).
- Ex GSK VP for Product Development Strategy
- Ex Endo Pharmaceuticals founding General Counsel
- Ex DuPont Merck VP International Sales & Marketing
- Ex President, CEO and Chairman of Ception Therapeutics
- Founder of Trigenesis Therapeutics Inc – dermatological markets which he sold to Dr Reddy's Pharmaceuticals.
- Executive Chairman – Iroko Pharmaceuticals
- Ex Chairman of Ilera Healthcare (sold to TerrAscend Corp)

#### Lisa Gray

- Ex Quoin Capital Investment Bank
- Ex GSK Ventures COO
- Ex GSK – various roles
- Ex Coopers & Lybrand management consultant
- Certified Public Accountant, Certified Valuation Analyst
- Vice-Chair of Ilera Healthcare

#### Zoltan Kerekes

- Co-founded PIPV Capital
- Ex GSK Ventures
- Ex GSK Senior Patent Counsel responsible for protecting and enforcing GSK's intellectual property
- Previously a New York attorney focussed on intellectual property litigation and transactional work

#### Brian Jones

- With PIPV since 2004 (16 years)
- Currently VP Corporate Development for Glycan Biosciences.
- Also works in Iroko Pharmaceuticals in corporate development and alliance management.

#### Brian Warrington

- Ex Vice President, Technology Development UK GlaxoSmithKline Discovery Research – With GSK 1965 to 2005 (40 years).

PIPV Portfolio Companies

portfolio



**Comment**

We also understand that iCeutica and Glycan both had Australian (Perth) origins demonstrating the longstanding track record of Osagie and the PIPV team to find opportunities in Australia to create significant value. We understand that Director Harry Karelis met Osagie over 10 years ago in connection with those deals.

**From PIPV's current website:**

**PIPV Capital** is a fully integrated Private Equity and Venture Capital Fund which specializes in the Life Sciences, principally in the pharmaceutical sector. The Fund acquires intellectual property protected assets that meet our criteria for a value maximization. Through our proven venture capital and private equity approaches we identify any challenges associated with these assets and address them in order to exploit their full potential.

The **PIPV Capital** team has extensive contacts within the pharmaceutical, biotechnology and financial communities. We firmly believe that our long term positive relationships with individuals in these communities represents some of our most valued currency. This philosophy, which is embodied in "**PATCOL™ — People are the currency of Life**" leads us to the best solutions as we seek the highest possible returns on our investments.

**From a 2005 website article - About PIPV** - Phoenix IP Ventures is an intellectual property based venture capital firm, working in partnership with life sciences companies to maximize the potential value of their intellectual property based assets. Phoenix IPV primarily works with our partners' assets that are not being progressed for commercial, strategic, or other reasons. Phoenix IPV typically invests these assets into small to mid-sized companies where they will be considered core and will receive the management focus and resources required to progress them. For certain, early-stage organizations, where the management team and technology look extremely promising, Phoenix IPV may agree to act as the organization's commercialization arm.

Ilera Healthcare (ILHC) – former sister-company of Ilera Therapeutics (ILTS)

- Hospital and healthcare
- Seed to sale processes – the highest quality medical marijuana
- CEO Greg Rochlin
- 40 employees on LinkedIn

## Appendix 3 – TerrAscend Corp acquisition of ILERA Healthcare

ILERA Healthcare and ILERA Therapeutics were founded by six business executives including Mr Osagie Imasogie, Lisa Gray and Zoltan Kerekes at Phoenix IP Ventures (PIPV Capital).

We understand the ILERA Healthcare business became profitable after 2 years, and was sold to TerrAscend Corp (TER.CD). ILERA Therapeutics was created at that point to hold the worldwide rights (ex-Pennsylvania) to HOPE 1 & 2, and was not part of the sale to TER.

Description of ILERA Healthcare per TER: “One of five vertically integrated cannabis cultivator, processor and dispensary operators in Pennsylvania”.

We have reviewed the acquisition details in TER’s CY19 and Q1 2020 accounts, to form a view on the sales price achieved by ILERA’s founders and the value or profit they created.

TerrAscend Corp (TER.CD) - Acquisition of ILERA Healthcare			
	CAD (\$m)	US (\$m)	US\$ (m)
Cash on closing (acquisition date 16/9/19)		25	
Equity		25	
<b>Initial consideration</b>		<b>50</b>	<b>50</b>
		Minimum	Maximum
Earn-out based on specific sales and profitability targets for CY20 and CY21 (first earn-out amount has been paid of CAD\$26.5m; Final earn-out payment due 15/3/21)		75	175
<b>Total consideration (min / max)</b>		<b>125</b>	<b>225</b>
	<b>CAD \$m</b>		<b>USD \$m</b>
<b>Fx rate CAD: USD at 31/12/19</b>			<b>0.76985</b>
Net tangible assets acquired	17.5		13.5
Intangible assets (intellectual property)	78.5		60.4
Intangible assets (brand name)	16.0		12.3
Goodwill	91.1		70.1
<b>Total consideration per Dec 2019 TER accounts (since revised up)</b>	<b>203.1</b>		<b>156.4</b>
Additional goodwill booked in Q1 2020 accounts (NB discounted in DCF)	62.6		48.2
	<b>265.7</b>		<b>204.6</b>
<b>Estimated gain on sale to ILERA Healthcare shareholders (assuming their cost = NTA)</b>			<b>211.5</b>
Estimated gain %			1472%
	<b>CAD \$m</b>		<b>USD \$m</b>
<b>Performance</b>			
Pro-forma revenue CY19 (standalone basis)	45.9		35.3
Net income (NPAT)	16.8		12.9
<b>Acquisition price (incl maximum earn-out)</b>			<b>225.0</b>
<b>Revenue multiple paid / payable</b>			<b>6.4x</b>
<b>NPAT multiple</b>			<b>17.4x</b>

Source: TER accounts Qtr ended March 2020, and year ended Dec 2019

### Discussion and Conclusions

The ILERA Healthcare business was sold to TER on 16/9/19 for US\$50m plus an earn-out of between US\$75m and \$175m depending on specific revenue and profit achieved. In TER’s March 2020 accounts TER increased its provision for deferred consideration on ILERA Healthcare by CAD\$63m and stated “it is management’s expectation that the full amount of US\$175m will be paid”.

- The sale price of US\$225m represents 6.4x sales and 17.4x CY19 NPAT.
- If we assume that the costs of setting ILERA Healthcare was equal to the NTA acquired by TER of US\$13.5m, it looks to us that the ILERA vendors will make a gain on sale of US\$211.5m which is an astonishing 1472% gain in just 3 years (i.e. a 14-fold gain).
- The value creation by the ILERA Healthcare founders looks superb from what we can see. Congratulations Osagie and your team of managers, staff and investors.

## Appendix 4 - How Medicinal Cannabis Works

Cannabis has been used for centuries to treat pain and a variety of other ailments. There are more than 100 different cannabinoids (cannabis-specific chemicals) that have been identified in cannabis, but two in particular are medically important: delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD).

THC and CBD act through the body’s endocannabinoid system, and have different effects:

THC	CBD
Intoxicating	Non-intoxicating
Pain-relieving and anti-inflammatory properties	Pain-relieving and anti-inflammatory properties
May reduce nausea and vomiting	May reduce anxiety
May increase appetite	Anti-convulsant properties
May have sedative properties	Modulates the effects of THC

Source: Althea Group Holdings (AGH) website

MC products have different actions depending on the ratio of THC to CBD that they contain. CBD acts to balance out some of the negative effects of THC, so combining THC with CBD can allow patients to receive higher doses of THC with a reduced risk of unwanted side-effects.

### Varieties & Strains

According to Wikipedia, the two species of Cannabis plant grown most commonly are Cannabis Indica and Cannabis Sativa. Cannabis Indica is an annual plant in the Cannabaceae family. The plant is cultivated for many purposes. For example, the plant fibres are used to make cloth, paper and other industrial uses. Cannabis Indica produces large amounts of Tetrahydrocannabinol (THC). The higher concentrations of THC provide euphoric and intoxicating effects making it popular for use both as a recreational and medicinal drug. Cannabis Indica strains typically have more chlorophyll than Cannabis Sativa, thus they are known to grow and mature faster. Cannabis Indica typically yield smaller but higher quality crops with the percentage of THC up to 18% more than when cultivated from the Sativa plant. As the plants grow fairly short they are the ideal for indoor growing.

Sativa plants are usually grown outdoors and can reach heights of up to 4.5 metres. Sativa is known for being more psycho-active for the head, whereas Indica plants have been used for relaxing and sedative drugs for the body.

A third species is called Cannabis Ruderalis, which is very low in THC and thus is not commonly grown for industrial, medicinal or recreational use. However the variety has been used to cross-breed auto-flowering plants.

Hybrid varieties have varying ratios of these varieties. E.g. “White Widow” has about 60% Indica and 40% Sativa ancestry.

Hemp – refers to the cannabis varieties with less than 0.2% THC, the intoxicating psychoactive cannabinoid present in cannabis. Hemp’s most lucrative application is for CBD extraction from the flower but it is also used for industrial purposes because of its fibre. Hemp production is also strictly controlled by governments. Hemp production has also been increasing strongly in many countries.

Zelira Therapeutics (ZLD)						\$ 0.052					
<b>Profit &amp; Loss</b>						<b>Per Share &amp; Ratio data</b>					
Year end June (A\$m)	FY20e	FY21e	FY22e	FY23e	FY24e	Year end June	FY20e	FY21e	FY22e	FY23e	FY24e
<b>Op. Revenue</b>	<b>0.2</b>	<b>4.8</b>	<b>24.4</b>	<b>40.6</b>	<b>59.7</b>	Reported EPS (cents)	(0.3)	(0.2)	0.3	0.8	1.5
Op. Revenue growth	nm	2301%	408%	66%	47%	Growth	-32.3%	-22.4%	-218.3%	182.2%	86.4%
Cost of Goods Sold	0.0	(2.4)	(11.0)	(16.2)	(20.9)	P/E ratio (x)	-16.3x	-21.0x	17.7x	6.3x	3.4x
<b>Gross Profit</b>	<b>0.2</b>	<b>2.4</b>	<b>13.4</b>	<b>24.3</b>	<b>38.8</b>	<b>EPS (normalised)(cents)</b>	<b>(0.3)</b>	<b>(0.2)</b>	<b>0.3</b>	<b>0.8</b>	<b>1.5</b>
Gross Profit Margin	100.0%	50.0%	55.0%	60.0%	65.0%	Growth	-30.3%	-20.5%	-218.3%	182.2%	86.4%
Other Income	1.0	0.5	0.5	0.5	0.5	P/E ratio (x)	-16.7x	-21.0x	17.7x	6.3x	3.4x
Cash Operating Expenses	(6.9)	(7.9)	(8.2)	(8.6)	(9.0)	DPS (cents)	0.0	0.0	0.0	0.0	0.4
<b>EBITDA</b>	<b>-5.7</b>	<b>-5.0</b>	<b>5.7</b>	<b>16.2</b>	<b>30.3</b>	Franking	0%	0%	0%	0%	0%
Ebitda Margin	-2837%	-103%	23.3%	40%	51%	<b>Yield</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>7.4%</b>
Depreciation & Amort	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	OCF per share (cents)	-0.4	-0.3	0.3	0.8	1.5
<b>EBIT</b>	<b>-5.7</b>	<b>-5.0</b>	<b>5.7</b>	<b>16.2</b>	<b>30.3</b>	Price / OCF (x)	-14.2x	-16.8x	20.2x	6.7x	3.5x
Ebit Margin	-2847.4%	-104%	23.2%	40%	51%	Shares on Issue - Wavge (F/D)	1793.0	1968.0	1968.0	1968.0	1968.0
Net Interest Income (Exp)	0.1	0.1	0.1	0.1	0.1	Shares on Issue - at year-end	966.3	1142.3	1968.0	1968.0	1968.0
Share of Assoc NPAT	0.0	0.0	0.0	0.0	0.0	Enterprise Value (F/D) \$m	90.1	96.6	89.8	74.1	44.4
<b>Pre-tax profit</b>	<b>(5.6)</b>	<b>(4.9)</b>	<b>5.8</b>	<b>16.3</b>	<b>30.4</b>	EV/ Sales	450.5x	20.1x	3.7x	1.8x	0.7x
Income Tax Credit (Exp)	0.0	0.0	0.0	0.0	0.0	<b>EV/EBITDA</b>	<b>-15.9x</b>	<b>-19.5x</b>	<b>15.8x</b>	<b>4.6x</b>	<b>1.5x</b>
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	EV/EBIT	-15.8x	-19.4x	15.8x	4.6x	1.5x
Minorities (share of loss)	0.0	0.0	0.0	0.0	0.0	<b>Liquidity &amp; Leverage</b>					
Abnormals	-0.1	0.0	0.0	0.0	0.0	Net Cash (Net Debt) \$m	1.9	4.6	11.3	27.1	56.7
<b>NPAT (reported)</b>	<b>-5.7</b>	<b>-4.9</b>	<b>5.8</b>	<b>16.3</b>	<b>30.4</b>	Net Debt / Equity % (net cash)	-5%	-12%	-25%	-44%	-61%
Adjustments (Abnormals)	0.1	0.0	0.0	0.0	0.0	Net Debt / EBITDA	0.3x	0.9x	n/a	n/a	n/a
<b>NPAT (normalised)</b>	<b>-5.6</b>	<b>-4.9</b>	<b>5.8</b>	<b>16.3</b>	<b>30.4</b>	ROA (EBIT / T.Assets) %	-15.7%	-12.5%	11.0%	22.8%	28.2%
<b>Balance Sheet</b>						ROE (NPAT / T.Equity) %	-15.8%	-12.6%	12.6%	26.2%	32.8%
Cash	2.0	4.6	5.1	15.9	37.9	Interest Cover (EBIT)	56.9x	49.8x	-56.7x	-161.9x	-299.7x
Receivables	0.3	0.8	3.7	6.1	9.0	Dividend Payout % (of adj EPS)	n/a	n/a	n/a	n/a	n/a
Inventories	0.0	0.4	1.5	2.4	3.1	<b>Cash Flow</b>					
Other	0.0	0.2	0.2	0.0	0.0	EBITDA	-5.7	-5.0	5.7	16.2	30.3
<b>Total current assets</b>	<b>2.2</b>	<b>6.0</b>	<b>10.4</b>	<b>24.4</b>	<b>50.0</b>	Chge in Working Capital	0.0	-0.7	-0.2	-0.5	-0.8
PP&E	1.3	1.3	1.3	1.3	1.3	Interest Received (Paid)	0.1	0.1	0.1	0.1	0.1
Investments	0.2	0.2	0.2	0.2	0.2	Income taxes paid	0.0	0.0	0.0	0.0	0.0
Intangibles	32.1	32.1	32.1	32.1	32.1	Other	-1.0	-0.5	-0.5	-0.5	-0.5
Deferred tax assets	0.0	0.0	0.0	0.0	0.0	<b>Operating cash flows</b>	<b>-6.6</b>	<b>-6.1</b>	<b>5.1</b>	<b>15.3</b>	<b>29.1</b>
Other	0.3	0.3	0.3	0.6	1.0	Capex	0.0	0.0	0.0	0.0	0.0
<b>Total non-current assets</b>	<b>33.9</b>	<b>33.9</b>	<b>33.9</b>	<b>34.2</b>	<b>34.6</b>	Acqns & Investments	0.2	0.0	0.0	0.0	0.0
<b>Total Assets</b>	<b>36.2</b>	<b>39.9</b>	<b>44.3</b>	<b>58.7</b>	<b>84.6</b>	Government Grants received	1.0	0.5	0.5	0.5	0.5
Payables	-0.6	-0.8	-1.3	-1.9	-2.2	Payments for Intangibles	0.0	0.0	0.0	0.0	0.0
Interest bearing liabs - Curr	0.0	0.0	0.0	0.0	0.0	<b>Net investing cash flows</b>	<b>1.2</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>
Provisions	0.0	-0.1	-0.1	-0.1	-0.1	Equity raised	4.5	8.2	1.2	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	Change in Debt	0.0	0.0	0.0	0.0	0.0
<b>Total Current Liabilities</b>	<b>-0.7</b>	<b>-0.9</b>	<b>-1.5</b>	<b>-2.0</b>	<b>-2.4</b>	Other	-0.2	0.0	0.0	0.0	0.0
Interest-bearing liabs - N/c	0.0	0.0	0.0	0.0	0.0	<b>Financing cash flow</b>	<b>4.3</b>	<b>8.2</b>	<b>1.2</b>	<b>0.0</b>	<b>0.0</b>
Provisions	0.0	0.0	0.0	0.0	0.0	Change in Cash	-1.1	2.6	6.8	15.8	29.6
Other	0.0	-0.1	-0.1	-3.5	-6.4	<b>Revenue by Country</b>					
<b>Total Non-current Liabilities</b>	<b>0.0</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-3.5</b>	<b>-6.4</b>	Australia	0.0	0.8	4.4	6.5	9.2
<b>Total Liabilities</b>	<b>-0.7</b>	<b>-1.0</b>	<b>-1.6</b>	<b>-5.4</b>	<b>-8.7</b>	Germany	0.0	1.2	14.3	25.0	37.1
<b>Total Shareholders' Equity</b>	<b>35.5</b>	<b>38.8</b>	<b>42.8</b>	<b>53.2</b>	<b>75.8</b>	USA	0.0	0.8	3.7	7.1	11.5
<b>Interims</b>						USA - Up-front licence fees	0.2	2.0	2.0	2.0	2.0
Year end June	1H19A	2H19A	1H20	2H20e	1H21e	<b>Total Revenue</b>	<b>0.2</b>	<b>4.8</b>	<b>24.4</b>	<b>40.6</b>	<b>59.7</b>
<b>Sales</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.2</b>	<b>1.7</b>	<b>Patients by Country</b>					
Sales Growth (g)	nm	nm	nm	nm	nm	Australia	0.0	1,214	2,795	4,020	5,789
<b>EBITDA</b>	<b>-1.9</b>	<b>-1.6</b>	<b>-2.4</b>	<b>-3.2</b>	<b>-3.0</b>	Germany	0.0	872	5,724	10,437	15,824
EBITDA Margin	n/a	n/a	n/a	-1613%	-179%	USA	0.0	7,865	23,516	43,487	69,218
EBIT	-1.9	-1.6	-2.5	-3.2	-3.0	<b>Total</b>	<b>0.0</b>	<b>9,952</b>	<b>32,035</b>	<b>57,945</b>	<b>90,830</b>
Equity Share of Assocs NPAT	0.0	0.0	0.0	0.0	0.0	<b>Major Shareholders</b>					
NPAT (Reported)	-2.1	-1.5	-2.6	-3.2	-3.0	Shares (m)	% of coy	Opts (m)	Perf rights		
<b>NPAT (Adjusted)</b>	<b>-1.9</b>	<b>-1.5</b>	<b>-2.4</b>	<b>-3.2</b>	<b>-3.0</b>	Sunset Capital Management Pty Ltd (Jason P	74.6	6.5%	8.0	12.5	
<b>EPS (adjusted)(cents)</b>	<b>-0.2</b>	<b>-0.2</b>	<b>-0.3</b>	<b>0.0</b>	<b>-0.2</b>	Gemelli Noms (Harry Karelis, Deputy Chair)	49.6	4.3%	6.0	12.5	
EPS Growth	nm	nm	nm	nm	nm	Mara Gordon (Co-founder, ex NED, US-based)	44.1	3.9%			
DPS (cents)	0.0	0.0	0.0	0.0	0.0	Mal Washer	35.2	3.1%			
						Capricorn (Merchant Leaders Fund)	21.4	1.9%			
						Osagie Imasogie (Chairman, US-based)(Ilera	16.4	1.4%	0.0	117.3	
						Lisa Gray (NED, US-based)(Ilera co-founder)	16.4	1.4%	0.0	117.3	

Year end June	1H19A	2H19A	1H20	2H20e	1H21e
<b>Sales</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.2</b>	<b>1.7</b>
Sales Growth (g)	nm	nm	nm	nm	nm
<b>EBITDA</b>	<b>-1.9</b>	<b>-1.6</b>	<b>-2.4</b>	<b>-3.2</b>	<b>-3.0</b>
EBITDA Margin	n/a	n/a	n/a	-1613%	-179%
EBIT	-1.9	-1.6	-2.5	-3.2	-3.0
Equity Share of Assocs NPAT	0.0	0.0	0.0	0.0	0.0
NPAT (Reported)	-2.1	-1.5	-2.6	-3.2	-3.0
<b>NPAT (Adjusted)</b>	<b>-1.9</b>	<b>-1.5</b>	<b>-2.4</b>	<b>-3.2</b>	<b>-3.0</b>
<b>EPS (adjusted)(cents)</b>	<b>-0.2</b>	<b>-0.2</b>	<b>-0.3</b>	<b>0.0</b>	<b>-0.2</b>
EPS Growth	nm	nm	nm	nm	nm
DPS (cents)	0.0	0.0	0.0	0.0	0.0

Source: Sequoia estimates; "nm" means not meaningful

Year end June	No.	No.	No.	No.	No.
Australia	0.0	1,214	2,795	4,020	5,789
Germany	0.0	872	5,724	10,437	15,824
USA	0.0	7,865	23,516	43,487	69,218
<b>Total</b>	<b>0.0</b>	<b>9,952</b>	<b>32,035</b>	<b>57,945</b>	<b>90,830</b>

Major Shareholders	Shares (m)	% of coy	Opts (m)	Perf rights
Sunset Capital Management Pty Ltd (Jason P	74.6	6.5%	8.0	12.5
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Source: Refinitiv; Performance rights includes ones proposed but not yet approved

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## Recommendation Criteria

### Investment View

The Sequoia Wealth Management (SWM) Investment View is based on an absolute 1-year total return equal to capital appreciation plus yield.

Buy	Accumulate	Hold	Reduce	Sell
>20%	10% – 20%	0% – 10%	0% to -10%	>-10%

A Speculative recommendation is when a company has limited experience from which to derive a fundamental investment view.

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SWM has a four tier Risk Rating System consisting of: Very High, High, Medium and Low. The Risk Rating is a subjective rating based on: Management Track Record, Forecasting Risk, Industry Risk and Financial Risk including cash flow analysis.

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