This release contains forwards-looking statements, which reflect the current beliefs and expectations of CLINUVEL's management. Statements may involve a number of known and unknown risks that could cause our future results, performance or achievements to differ significantly from those expressed or implied by such forward-looking statements. Important factors that could cause or contribute to such differences include risks relating to: our ability to develop and commercialise pharmaceutical products, including our ability to develop, manufacture, market, distribute and sell bio/pharmaceutical products; competition for our products, especially SCENESSE® (afamelanotide 16mg); our ability to achieve expected safety and efficacy results through our innovative R&D efforts; the effectiveness of our patents and other protections for innovative products, particularly in view of national and regional variations in patent laws; our potential exposure to product liability claims to the extent not covered by insurance; increased government scrutiny in either Australia, the U.S. and/or Europe of our agreements with third parties and suppliers; our exposure to currency fluctuations and restrictions as well as credit risks; the effects of reforms in healthcare regulation and pharmaceutical pricing and reimbursement; any failures to comply with any government payment system (i.e. Medicare) reporting and payment obligations; uncertainties surrounding the legislative and regulatory pathways for the registration and approval of biotechnology based products; decisions by regulatory authorities regarding approval of our products as well as their decisions regarding label claims; any failure to retain or attract key personnel and managerial talent; the impact of broader changes within the pharmaceutical industry and related industries; potential changes to tax liabilities or legislation; environmental risks; and other factors that have been discussed in our 2019 Annual Report. Forward-looking statements speak only as of the date on which they are made and the Company undertakes no obligation, outside of those required under applicable laws or relevant listing rules of the Australian Securities Exchange, to update or revise any forward looking statement, whether as a result of new information, future events or otherwise.
**FINANCIALS**

<table>
<thead>
<tr>
<th></th>
<th>FY2017</th>
<th>FY2018</th>
<th>FY2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean quarterly cash burn</strong></td>
<td>$2.81m</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mean annual cash burn</strong></td>
<td>$12.74m</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cumulative expenditure 2005-14 (EMA)</strong></td>
<td>A$139m</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cumulative expenditure 2005-19 (FDA)</strong></td>
<td>A$191m</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ROE**

<table>
<thead>
<tr>
<th></th>
<th>FY2017</th>
<th>FY2018</th>
<th>FY2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUV</td>
<td>27.97%</td>
<td>32.3%</td>
<td>31.57%</td>
</tr>
<tr>
<td>XHJ midcap average²</td>
<td>-8.51%</td>
<td>3.74%</td>
<td>0.23%</td>
</tr>
<tr>
<td>XHJ midcap median²</td>
<td>10.38%</td>
<td>10.26%</td>
<td>9.13%</td>
</tr>
</tbody>
</table>

1. Companies in the current XHJ index ex CSL/COH
2. Source: Prof A Damodaran, NYU Stern

**CUMULATIVE CASH FROM SCENESSE®**

**FINANCIAL MANAGEMENT - CURRENT RATIO**

<table>
<thead>
<tr>
<th>Year</th>
<th>Current ratio</th>
<th>Net profit (loss) $Am</th>
</tr>
</thead>
<tbody>
<tr>
<td>-15</td>
<td>-10</td>
<td>-5</td>
</tr>
</tbody>
</table>

**ROE**

<table>
<thead>
<tr>
<th></th>
<th>CY2017</th>
<th>CY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global biotech²</td>
<td>8.9%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Global pharma²</td>
<td>11.9%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>
**SCENESSE® DISTRIBUTION UPDATE EU-US**

**Table**

<table>
<thead>
<tr>
<th>Year</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>29%</td>
</tr>
<tr>
<td>2016</td>
<td>59%</td>
</tr>
<tr>
<td>2017</td>
<td>87%</td>
</tr>
<tr>
<td>2018</td>
<td>79%</td>
</tr>
<tr>
<td>2019</td>
<td>65%</td>
</tr>
</tbody>
</table>

**Increase YOY**
- Treatment: 13%
- Patients: 12.5%
- Centres: 27%
Retention rate >94%

**Clinuvel’s Decision Model: Self-Distribution Versus Out-Licensing**
- Upfront payments range from A$15M to A$60M
- Risk free rate 1.16% (10yr T-bills), COE 11.41%
- Controlled distribution, price negotiations, hospital management, EPP patients’ follow up

**Economics: Self-Distribution**

**Reference Prices – Orphan Drugs¹**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Price (UK)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advate – haemophilia A</td>
<td>£118-187k</td>
</tr>
<tr>
<td>BeneFIX – haemophilia B</td>
<td>~£138k</td>
</tr>
<tr>
<td>Eliglustat – Gaucher’s disease</td>
<td>£125-250k</td>
</tr>
<tr>
<td>Eculizumab – atypical haemolytic uraemic syndrome</td>
<td>£340k</td>
</tr>
<tr>
<td>Migalastat – Fabry disease</td>
<td>£210k</td>
</tr>
<tr>
<td>Elosulfase alfa – MPS type IVa</td>
<td>~£394k</td>
</tr>
</tbody>
</table>

¹ UK reference pricing, estimates based on patient weights where appropriate.
CLINUVEL LEADS THE WAY WITH GLOBAL UNIFORM PRICING POLICY

- Economic climate ripe, timely
- Equitable treatment of all payors, hospitals
- US politics: “no price rise higher than inflationary rate” [“Prescription Drug Pricing Reduction Act of 2019”]
ADOPION SCENESSE®, LANDSCAPE MCR AGENTS

CASH FLOW OF SALES

EARLY ADOPT
LAGGARDS

VALLEY OF DEATH

PUBLIC PRIVATE

COMMERCIAL CLINICAL

MELANOCORTINS

<table>
<thead>
<tr>
<th>CYCLIC</th>
<th>LINEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYN MS 'DIAG'</td>
<td>AFA - EPP - 3RD</td>
</tr>
<tr>
<td>MCAP Cash Burn Fund L Dt</td>
<td>MCAP Cash Burn Fund P</td>
</tr>
<tr>
<td>$323 $499 $1,668 $565 $3,607 $600</td>
<td>A$1,450 A$58 A$14 A$139 A$18</td>
</tr>
<tr>
<td>BRE - FSD</td>
<td></td>
</tr>
<tr>
<td>PH III</td>
<td>PH II</td>
</tr>
<tr>
<td>$180 $97 $25 $340 $36</td>
<td>SET - BBA</td>
</tr>
<tr>
<td>MCAP Cash Burn Fund P</td>
<td>MCAP Cash Burn Fund L</td>
</tr>
<tr>
<td>$780 $162 $80 $640 $80</td>
<td>A$1,450 A$58 A$14 A$139 A$18</td>
</tr>
<tr>
<td>PH I</td>
<td></td>
</tr>
<tr>
<td>$1,668</td>
<td></td>
</tr>
<tr>
<td>$565</td>
<td></td>
</tr>
<tr>
<td>$3,607</td>
<td></td>
</tr>
<tr>
<td>$600</td>
<td></td>
</tr>
<tr>
<td>$780</td>
<td></td>
</tr>
<tr>
<td>$162</td>
<td></td>
</tr>
<tr>
<td>$80</td>
<td></td>
</tr>
<tr>
<td>$640</td>
<td></td>
</tr>
<tr>
<td>$80</td>
<td></td>
</tr>
</tbody>
</table>

Sources: latest SEC filings for most recent annual reporting period; cash given at most recent quarter. All figures reported in US$M unless otherwise stated.
SYSTEMIC PHOTOPROTECTION REPIGMENTATION (= MELANOGENESIS)

CLAIMS

1. REPIGMENTATION (= MELANOGENESIS)
   - NCAS >20
   - ETHICS >35
   - EMA 2014
   - FDA 2019

2. SYSTEMIC PHOTOPROTECTION
   - TGA
   - PMDA

PIPELINE

- SCENESSE®
- SCENESSE® ENFANCE
- PARVYSMELANOTIDE (VLRX001)
- PHIMELANOTIDE (VLRX002)
- (CUV9900)
- OTC

- EPP
- VITILIGO
- 3rd INDICATION

STRATEGY I

1. EPP
2. VITILIGO
3. 3rd INDICATION
SYSTEMIC PHOTOPROTECTION REPIGMENTATION (= MELANOGENESIS)

- EPP
- VITILIGO
- 3rd INDICATION

DNA REPAIR
- NCAS >20
- ETHICS >35
- EMA 2014
- FDA 2019
- TGA
- PMDA

PARVYSMELANOTIDE (VLRX001)
PHIMELANOTIDE (VLRX002)
(CUV9900)
OTC

SCENESSE®
SCENESSE® ENFANCE

CLAIMS

PIPELINE

STRATEGY I
I. MAIN CAUSES OF DNA DAMAGE

- ROS $\rightarrow$ UVR $\rightarrow$ PHOTOPRODUCTS
- GENETICALLY INHERITED DISORDERS

II. DNA REPAIR MECHANISMS

- RR
- NER
- BER
- HR/EJ

III. ROLE OF $\alpha$-MSH / SCENESSE® IN NER = DNA REPAIR

1. ELIMINATES/DECREASES PHOTOPRODUCTS 6-4PP, CPD, T-T DIMERS
2. OPTIMISES MELANOCYTE OUTPUT $\rightarrow$ MELANOCYTIC (PHYSICAL BARRIER)
3. OPTIMISES MC1R SIGNALLING $\rightarrow$ cAMP $\rightarrow$ ATR/PKA $\rightarrow$ PTEN $\rightarrow$ P53 $\rightarrow$ MITF $\rightarrow$ XPA-XPF
RISK FACTORS TO SKIN CANCER

MC1R POLYMORPHISMS 16Q24.3
I. Increased risk of skin cancer – hierarchical regression modelling
II. RHC - freckling, red hair, fair skin
III. Arg151Cys, Arg160Trp, Asp29His
IV. Variants decrease essential palmitoylation function

MELANIN DENSITY
I. Lack of supranuclear protection
II. Epidermal barrier function lost
III. Atypia loss of architecture [actinic field cancerisation]

CELLULAR SIGNALLING
I. Deficient, suboptimal
II. cAMP/PKA
III. ATR-ATM
IV. P53
V. PTEN
VI. Bcl-2
VII. CDKN2A
VIII. MITF

UV EXPOSURE
I. UV photoproducts
II. Genomic lesions ‘3 prime to ‘5 prime end
III. Number of sunburns during adolescence increases risk of melanoma: Nurses Health Study I-II (NIH/Brigham Women’s Hospital)

ACTINIC DAMAGE: SKIN CANCER
**STRATEGY II**

**ALPHA-MSH TO DATE – SCENESSE® IN APPLICATION**

### MC1R Polymorphisms 16q24.3

<table>
<thead>
<tr>
<th>I. Ki (dissociation constant MC1R)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ki</strong></td>
<td>MLN</td>
</tr>
<tr>
<td>a-MSH</td>
<td>0.61</td>
</tr>
<tr>
<td>NDP</td>
<td>0.58</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Ki</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ki</strong></td>
<td>himm CV-1 SV40</td>
</tr>
<tr>
<td>a-MSH</td>
<td>0.034 +/-0.0105</td>
</tr>
<tr>
<td>NDP</td>
<td>0.0231 +/- 0.08</td>
</tr>
</tbody>
</table>

| III. Afamelanotide binds to MC1R in 57 healthy volunteers with 7 different allelic variations |

### Melanin Density

| I. Increase MD 0.35 MD units – 28 days |
| II. Permanent SPF 12-15 provided, scatters and absorbs UV energy |
| III. Increase melanin in PLF – MC1R = 0.73 MD units |
| IV. Melanisation of Caucasian skin in EPP, PLE, SU, ODD |
| V. Mechanical – less elastic cells inhibit melanoma metastases – in vivo |

### Cellular Signalling

| I. MC1R binding affinity |
| II. Optimise signalling downstream |
| III. ATR-PKA-JNK-p53-XPC |
| IV. cAMP-XAB1-XPA |
| V. NF-kB nuclear translocation |
| VI. HBL cells – no MITF expression following afamelanotide |

### UV Exposure

| I. Increased UV exposure without sunburn-phototoxicity [p<0.05] |
| II. Decrease apoptotic keratinocytes |
| III. Decreases T-T |
| IV. a-MSH and ET-1 increase DNA repair |
| V. Nraf2-P38-PARP1-XPC-XPE [in vitro] |

---

**REDUCING RISK OF SKIN CANCER**

1. CUV150 3rd indication n= 6 24 skin biopsies
2. CUV151 healthy volunteers n= 20 80 skin biopsies
**STRATEGY II**

**ALPHA-MSH TO DATE – SCENESSE® IN APPLICATION**

- **MC1R Polymorphisms 16q24.3**
- **Melanin Density**
- **Cellular Signalling**
- **UV Exposure**

1. **CUV150 3rd INDICATION**  
   N= 6  
   24 SKIN BIOPSIES

2. **CUV151**  
   HEALTHY VOL.  
   N= 20  
   80 SKIN BIOPSIES

---

1. REDUCING PROBABILITY OF SUNBURN (APOPTOSIS)
2. REDUCING PHOTOPRODUCTS T-T, (CPD/6-4PP)
3. DNA REPAIR EFFICIENCY

**REDUCING RISK OF SKIN CANCER(S) FOLLOWING UVR**

---

**REDUCING RISK OF SKIN CANCER**
CLINUVEL'S PORTFOLIO

SCENESSE®

SCENESSE® ENFANCE

PARVYSMELANOTIDE PHIMELANOTIDE
CUV9900

OTC LINES

CUV104 CUV105
CUV150 CUV151

VITILIGO
3rd Indication – USA
EPP – EU
EPP – USA
EPP – AUS
EPP – JPN

PREVENTION/CARE

SUMMARY
APPRECIATION OF CLINUVEL BOARD, MANAGEMENT, STAFF, PATIENTS, EXPERT PHYSICIANS AND INVESTORS
CEO’s Presentation to the Annual General Meeting

Melbourne, Australia, 20 November 2019

WELCOME
Good morning ladies & gentlemen, members of the Company,

We welcome the international audience attending CLINUVEL’s Annual General Meeting, and I express my special appreciation for the US investors who have travelled from the East Coast. I also wish to publicly acknowledge the number of investors from Europe and New Zealand in the room. Two professionals deserve special mentioning, the Bioshares editor David Blake, safe to say the most consummate analyst in the sector in Asia Pacific, and the highly esteemed Professor Noel Capon, the Chair of Marketing at Columbia Business School New York, my alma mater. I welcome Grant Thornton, our auditors and our legal representatives from Arnold Bloch Leibler, and representatives from the Australian porphyria community.

We are here today to reflect on a memorable moment, exactly 42 days after the historic FDA approval of SCENESSE® (afamelanotide 16mg), a first for Australia as a New Chemical Entity has come from preclinical stage to market.

It marks exactly 39 years since the technology was discovered and first published, and we together celebrate the FDA’s approval of an Australian executed innovation: the first systemic photoprotective drug.

Following the US marketing authorization, our teams are now finally able to execute CLINUVEL’s decisive part of the trilogy, a strategy in three parts which animated the significance of that one, long pursued, US regulatory outcome without which our long-term goal would never have been possible.

Most of you, shareholders, have consciously made the decision to allocate your funds in the hands of this management to develop a specific medical technology offering a solution to a select group of patients, while you were anticipating reaping the financial benefits on your investment; and the majority of you have generated substantial gains along the way.

This decision is surely the most optimum function of capitalism, balancing the clinical need of unserved patients while benefiting from equity returns.

We are aware that quite a number of new shareholders are present in the room, and for those we will discuss our views and approach to the business.

The discussion today is scripted and released to the ASX such that all stakeholders globally are provided the same information.

LEGAL NOTICE
As illustrated on the screen you are advised to read the obligatory statement to forewarn you not to speculate on future developments based on today's discussion.

INDEX
The index guides you through the topics.
SHARE REGISTRY AND TRENDS
Annually, we share with you the make-up of CUV’s register as we pay close attention to the changes occurring each quarter.

We call your attention to the stability in ownership segmentation, whereby the register – including the decline of ADRs – consists of 69% foreign subscribers in 2019 versus 72% in 2018, so on the face of it quite stable.

However, on further analyses we discern that more Australian institutions and more European retail investors have bought into CLINUVEL. Total shareholders increased to approximately 4,200, an increase of 6.9%

As we see a shift in shareholdings, CLINUVEL is increasingly addressing its audiences in the US and European Union.

You may have seen in our frequently released News Communiqués the annual activities of our investor relations distributed in various languages.

FINANCIALS
CLINUVEL’s financial management over more than a decade has proven consistent and disciplined, and has followed a regimented strategy, albeit one which is subject to frequent adjustments.

Prior to initiating the turnaround in 2005, we found a company on the brink of insolvency. With this legacy we took custody of new funds which needed to be preserved to establish an entity which could withstand protracted periods of economic malaise; without claiming foresight we were well positioned to navigate the Company and secure the development of SCENESSE® as the GFC unfolded in July 2007.

Eventually, professional investors appear to assess business risk first before caring about technologies and R&D output. In contradiction with a pharmaceutical mandate, repetitively, in our exchange with larger institutions, greater current value and emphasis is placed on our overall financial risk and ability to maintain lean operations, than on the output of future technology.

From an investment perspective we identify four fundamental factors guiding us to drive value for CLINUVEL:
   a. dominance, specialisation in a subsegment;
   b. a gradual growth of earnings (investment grade);
   c. redistribution of profits; and
   d. anti-cyclical measures.

Therefore, there is a strict sequel and emphasis underlying CLINUVEL’s fiscal approach:
   First, a consistency to our financial management executed by the same team secures rational control of expenditures versus cash flow.
   Second, management of CUV’s share capital, which directly impacts CLINUVEL’s enterprise value.
   Third, consistency in accrual of cash on deposit; it provides market confidence for cash acting as a counter-cyclical measure and fighting funds when needed.

I see CLINUVEL’s approach as akin to the Basel II Accord, where institutions need to hold a minimum cash reserve to cover risk and exposure. This concept is perhaps unconventional to single-product pharmaceuticals, but for most shareholders it provides confidence in the net tangible assets per share in CUV. This landing is very much part of managing unforeseen financial risks.

Of course, the question may arise whether more generous dispenses in R&D would be expected to lead to accelerated growth and higher valuations to CUV within the context of the Australian markets.

Although there are a handful of pharmaceutical companies globally against which we benchmark, and which are fully valued on their R&D pipeline and ability to raise continuously funding, in general there is not a correlation in
our sector between revving up expenses to create value ahead of demonstrating economic viability. The contrary is true, whereby never-ending equity and debt financing in pharmaceutical R&D decreases the probability of being able to generate meaningful returns on the total investment, other than hoping for an exit through the sale of the business.

The slide above demonstrates at the top left-hand side the mean quarterly and annual cash consumption by the Company and total funding to first European market at A$139M and the amount needed to reach the US market at A$191M, all achieved through equity funding. This is significantly lower than the median spent in our industry, and I will not repeat that number today.

At the bottom left-hand, one sees the cumulative cash generated from the main asset deployed in EPP, which is 50.4% of the total spending to market.

At the top right-hand, one sees just one of our measures of our financial compass, whereby - during all operational years and at all times – we adhered to a current ratio of a minimum of five, enabling us to serve short term creditors without jeopardising the solvency of the Company.

Finally, at the bottom right-hand one views the resultant of the financial discipline yielding a ROE the past three years far outstripping any of the ASX Healthcare Index or global biotech index.

As part of CLINUVEL’s financial strategy, modest redistribution of profits to shareholders was planned, acknowledging that approximately 30% had been in the stock longer than 10 years. The past year we increased the dividend by 25% to A$0.025 per share.

The issuance of dividends is described as an anomaly among Australian bio-pharmaceutical companies, certainly when looking at those with single-product entities working towards broadening the R&D pipeline. The market reception to our financial management has been undividedly positive the past years, and there is no reason to dramatically upend our course.

SCENESSE® DISTRIBUTION UPDATE EU-US
For FY2019, the Company posted its best results, with revenues of A$32.1M, profits before tax at A$18.4M, and a CAGR of 65% YoY.

In the table at the top left-hand side, one sees see the Compounded Annual Growth Rates since 2014. These numbers directly reflect our distribution and pricing policy in the European Economic Area.

The increase for FY2019 is owing to more prescribers, more centres and more patients requesting the SCENESSE® treatment. Most remarkable is the fact that erythropoietic protoporphyria (EPP) patients are shown to remain on treatment with 94% retention rate, while prescribers annually exhibit the same willingness to prescribe the treatment.

When we think about pharmaceutical distribution, there are a number of models to follow. No two companies in our sector are the same, and comparison calls for differentiation first.

➢ Which class of drugs; which distribution and product release model; who are the end users; hospitals versus pharmacies; university centres versus high street practices?

These are some of the deliberations to arrive at balanced decisions.

Classically, smaller pharmaceutical companies choose to out-license their technologies to licensees, mostly larger companies, in the anticipation that sales and consequential royalty streams generated by the licensee would surpass the cash flows which would have been received by the licensor itself, and under the assumption that the terminal value of the out-licensing deal is higher than the value arising from the choice to self-distribute.
In simple terms, is it economically of benefit to let someone else distribute one's product or should one do it himself/herself?

CLINUVEL – perhaps unconventionally to some investors but not the majority of our followers – decided to distribute itself. In sharing with you our optional license analyses, we try to ascertain on more than one ground whether this was a sound decision. In this decision model there are both numerical and long-term strategic considerations.

First, an out-licensed model would provide a license fee ranging from A$15M to A$60M in upfront payment, and royalty streams ranging from 25% to 40% serving as annual cash flows. At a risk-free rate of 1.16%, and cost of equity of 11.41%, we arrive at a simple model. In this conservative hypothesis we assumed that zero growth rate in revenues would be booked from 2019 to 2022 onwards.

The result of these analyses indicates that the present value of CUV’s cashflows is, under all presumed scenarios, higher than under a license agreement would be the case.

In addition, the loss of:
   a) control of the product, and
   b) CLINUVEL’s contact with end users, i.e. hospitals, physicians and patients would cause the loss of indispensable value to CUV.

The decision to self-distribute in the European Economic Area is well reflected in CUV’s enterprise value the past five years and provides a model for the US distribution.

In the US we are currently working with the FDA on agreeing the final and mandatory protocol for post-marketing follow-up of EPP patients for a minimum of eight years.

CUV is establishing an office on the West Coast, much alike our set up of the European operations, with 11 professionals planned within 18 months.

The discussions with US insurers and Pharmaceutical Benefit Managers are ongoing.

I conclude by drawing attention - at the bottom of the image - to the reference prices charged in orphan drugs, and for all to keep in mind the comparison with the annual treatment cost of SCENESSE® aimed at EPP patients who lack any treatment or the ability to lead a life free of risk of phototoxicity or anxiety.

SCENESSE® DISTRIBUTION – GLOBAL UNIFORM PRICE
CUV’s strategy differs from most pharmaceutical companies, and perhaps we are even the first to adopt a policy alien to the US payors:
< we anticipated in 2014 a political climate change to pharmaceutical drug pricing, since one most controversial individuals representing a US pharma company had attracted the attention and ire of regulators, the general public and politicians. >

As a reaction, CLINUVEL set out to lead the sector by demonstrating publicly that a pharmaceutical company can price its drug fairly and transparently, taking into account the societal and budget impact, while providing comfort to its own shareholders that the company would be able to stand on its own legs.

In late 2014, we established a Global Uniform Pricing Policy. We analysed the global landscape, political backlash and the carousel of industries attracting negative attention in global press. Following the turmoil and crises in banking, the upheaval in big data management and use of social media to influence democratic elections, we reckoned it would be a matter of time before US politics would make healthcare and drug pricing the main part of their manifestos. We had foresight and conviction that changes would be forthcoming and the attitudes of insurance companies towards pharmaceuticals would change dramatically.
With the nominations for the US elections in 2020 gathering momentum, we can surely say that CLINUVEL’s policy fits the current political debate on drug pricing in the US, precisely at the time that SCENESSE® is entering the US market.

A Global Uniform Pricing Policy implies that SCENESSE® is to command the same price in the US as in the European Economic Area, treating the American payors equitably and fairly. This novel approach befits the times we live in. The reception from the US insurers, the US financial community and our peers have been positive.

I share with you some of the headlines from both sides of the aisles. Healthcare and drug spending is one of the rare US political topics where eager bipartisan collaboration is seen: the US no longer wants to pay higher prices for its drugs than sold outside its borders, mainly referring to the prices in Europe, Switzerland and Canada.

Various terminology and rhetoric are being used, which all come down to the same: an initiative launched by President Trump is the “favoured nation status”, or Medicare (the State insurance) calling for an “International Pricing Index”. Bernie Sanders, Democratic candidate for the Presidency, is calling for US drug prices to be pegged to five developed countries, and House Speaker Nancy Pelosi is proposing the “Lower Drug Costs Now Act of 2019” calling for:

1. the Health and Human Services Secretary to negotiate the costs of drugs directly with companies, on 250 prescription drugs (including orphan drugs);
2. a cap final price for drugs based on averages paid by peer countries the UK, Canada and Australia.

At the moment the pharmaceutical industry abides by the Affordable Care Act enacted in 2010, legislating that a lifetime cap on drugs is banned, and stipulating that employers should keep paying for drugs no matter the cost. How long will this remain in place?

The Senate Finance Committee tabled a long-awaited bill (the “Prescription Drug Pricing Reduction Act of 2019”) to lower prescription drug prices and to: (1) cap out-of-pocket expenses to a maximum for the elderly of $3,100 per annum; and (2) penalise pharmaceutical companies raising drug prices higher than the inflationary rate.

In summary, CLUV’s Global Uniform Pricing Policy as announced in 2014 – and implemented in the US as we speak – is well timed and fits contemporary American sentiments. CLINUVEL is poised to lead the industry and succeed in its objectives.

We will inform the markets if and when the negotiations have come to a conclusion with all of the major US insurance groups.

ADOPTION SCENESSE®, LANDSCAPE MCR AGENTS
We share with you a most relevant question related to the life cycle of melanocortins and the innovation SCENESSE®. Is the drug at risk of becoming obsolescent, given that it has taken three decades for the technology to come to market? It is a legitimate question which was recently posed to us, and which we of course had had to answer prior to, and along, the development.

To arrive at the right answer, one needs to analyse the environment and context in which CLINUVEL operates.

The nineties and new millennium were too early for the environment – that is regulators, the medical community but also insurers – to acknowledge and therefore accept SCENESSE® or other linear or cyclic melanocortin to come to market. Timing is a factor often disregarded in medical innovation.

The past decade, CLINUVEL’s teams have actively worked for the medical community not only to accept the possibility of systemic photoprotection, but also to prime the patient community, wider medical community and insurers to recognise not solely the safety of SCENESSE® but also its medical utility. The time value of a maturing environment is translated in the value of SCENESSE® today, and at present obsolescence is not a factor at all.
At the right-hand side, one sees a matrix – along the horizontal axis – a distinction between orphan or mainstream addressable diseases, while on the vertical axis one sees the demarcation between clinical and commercial stage products belonging to the family of melanocortins. Although these are strictly not competitors to SCENESSE®, the analysis of these companies is quite revealing and serves more than a didactic purpose.

So, starting at the bottom of the grid, one sees a number of melanocortin products whose development has been discontinued over the decades by companies such as Pfizer, Basilea, Zengen, Santhera, Mimmetica and others.

Relevant to CLINUVEL’s FDA approval - but not a competitor per se – is Palatin Technologies (PTN), a US-based company which has developed a cyclic melanocortin for Female Sexual Dysfunction. It was approved by the FDA on 21 June 2019, that is four and half months prior to SCENESSE®.

A number of interesting observations can be made: this company opted – as many small pharmaceutical companies do – to out-license its technology to a partner called AMAG Pharmaceuticals, since Palatin obviously had assessed (i) it was not able to distribute the product itself, and (ii) it needed the upfront cash to progress the company. It is a very different business model than the one CLINUVEL has chosen, and the jury is out whether it will create substantial shareholder value. The US investors now wait for the licensee AMAG to start distributing and pay its royalties to Palatin; the licensor is always last in line.

A second observation is that Palatin has diluted its shareholders in the course of development by more than 600% and has raised US$340M to date in funding with the last equity dilution directly after the FDA approval.

We now look at the top left-hand corner, a company called Mallinckrodt (MNK) which has commercialised the larger melanocortin molecule ACTH, a product called ACTHAR, and where various commercial tragedies have unfolded serving as a memorable business case.

ACTHAR had been in use since 1952 for various auto-immune disorders without the company actually having performed extensive or pivotal clinical trials. The drug originally was priced at US$40 per vial but Mallinckrodt increased its price to US$34,000 and generating more than US$7B in revenues over its course. The company was uncovered as working together with Express Scripts, a Pharmacy Benefit Manager, keeping the price artificially high for insurers and incurring the wrath of the American public and politicians. This was one of the many cases where irresponsible pharmaceutical drug pricing made global headlines. Mallinckrodt had to pay fines in the order of US$100M, incurred negative press and the market cap went from US$15B in 2015 to less than US$200M today, a loss of 98% of its peak value.

US hedge funds were calling for Mallinckrodt to be investigated by Congress, and subsequently started to short the stock. I can assure you that MNK shareholders now have fully regretted management's decision to inflate the price of ACTHAR. In addition, MNK was ordered to pay US$15M for inducing physicians to prescribe ACTHAR violating the False Claim Act 1863, in defrauding governmental programs.

In current US political turmoil, CLINUVEL has no choice than to distance itself from these headlines and will not follow the path of pricing differentiation and increases by geography; times have changed, and we are called to act prudently.

The third company which has completed Phase II trials is US-based Rhythm Pharmaceuticals (RYTM) which is developing a melanocortin to address obesity in an orphan disorder, most likely intending to make the drug available for populations suffering from generalised or morbid obesity after FDA approval. This company has a MCAP of US$780M, has required more than US$650M in funding and has an increasing burn rate. Dilution has been more than 500% with 31 million shares outstanding.

At CLINUVEL we have followed a specific model to circumvent all pitfalls around us. Thus far it has been a successful journey and it will need to be continued. The emergence of melanocortins is excellent for all companies and research groups with an interest in the field.
If one critically views the Company's performance the past 14 years, an opportune question is whether there are other companies which would deliver equivalent or better shareholder returns. The answer is affirmative, of course there are.

However, this management started a mission and adapted a strategy coming from a most chequered past of two decades of the Company not having delivered technology nor value. Very much reflecting my standing in life – call it the prerogative of a managing director – one must complete what one has started:

Persistence provides shareholder confidence, like-minded investors are attracted by this attitude, therefore persistence eventually has led to shareholder value.

A strategy is only tenable if it is realistic and proven correct, however in public markets one tends to go further:

Let us turn to the highlight and final step to CUV’s long term strategy.

The FDA’s approval on 8 October was significant for a number of reasons relating to shareholder value and to the validation of a business case, however for the CLINUVEL team this day was of much more significance longer-term. This sanctioning by the most influential regulatory agency in the world, which serves as a beacon for all other agencies, provided us the bridge to the last missing piece of the scientific and commercial jigsaw.

The FDA’s approval enables us to complete the trilogy which we had envisaged and which many publications, dozens of research groups and scientists around the world had started hypothesising about and testing in-vitro and pre-clinical models without actually being able to work clinically with SCENESSE®.

On the slide one discerns the pathway of more than 20 National Competent Authorities, more 35 Ethics Committees, scientists of the EMA in 2014, all reviewing the use of the drug positively. Yet, although encouraging and helpful, none of these bodies would have a similar global impact as the endorsement by the FDA on the aspects of

(i) safety
(ii) utility of the technology, and
(iii) development plan

proposed by CLINUVEL as a mandatory part to its regulatory submission.

In essence, the FDA sanctioned and validated two aspects related to our core technology or pharmacophore of SCENESSE® as a linearly configured melanocortin. It provided approbation of the drug

1. as an effective melanogenic agent (repigmentary treatment),
2. as a systemic photo protective therapy (called often the 1st systemic photo protective drug)

However, the trilogy we had pursued via various avenues could not have been possible without the FDA’s positive outcome – bearing in mind that the agency had not allowed an IND (investigational new drug status) for this drug during two previous decades; that WAS the legacy of afamelanotide, but no longer a point of contention, this point is behind us.

In this industry, it is all about the claims one is allowed to make about a therapeutic product based on core technological properties which need to be proven, but foremost recognised by the leading agencies in the world.

Therefore, retreating to the inherent properties of alpha-MSH, the third and last part of CLINUVEL’s main strategy is proving the ability of the amplified alpha-MSH to act as a DNA reparative agent. There is ample evidence provided over the years, and we hold these data which only have significance if and when the FDA would have acknowledged and endorsed the technology. This is now a fact.
What does this mean?

On the right-hand side, one sees CLINUVEL's pipeline of products, derivatives of SCENESSE®, all providing similar effectiveness as the mother technology or molecule, but to be used by us in different formulations and applications, the next generation of our products with a similar expected safety profile.

STRATEGY I (C)
If one follows this concept of alpha-MSH analogues providing the ability to repair DNA damage, a primary question to answer is: from where does this DNA damage arise?

With no coincidence, operating out of Australia, there is no other country globally lending credibility to its scientific knowledge about UV-induced skin damage based on the incidence of non-melanoma (NMSC) and melanoma skin cancers (MSC).

DNA damage originates from either UV induced radical oxygen species causing mutational changes to DNA in keratinocytes and/or melanocytes, or it follows the decreased activity of DNA-reparative enzymes in genetic disorders making patients much more prone to skin cancers.

Please bear with us and follow the concept, because we are nearing the centre and highlight of the strategic path: DNA reparative mechanisms come in four, for today's purpose we focus on one specific DNA reparative pathway, the Nucleotide Excision Repair mechanism which is influenced and regulated by the melanocortin 1 receptor (MC1R) and its downstream signalling. In other words, the MC1R is the socket for SCENESSE®, acting as a powerful plug providing the electric current for the cell to repair DNA.

CLINUVEL knows from its own work, clinical trials and in vitro/vivo scientific data, but also from the emerging science in melanocortins, that alpha-MSH – and therefore the more powerful version SCENESSE® - directly and indirectly influences the DNA reparative pathway via Nucleotide Excision Repair through MC1R signalling and has shown to exert a positive influence on photoproducts following UVR damage. On the bottom of the slide are listed the three properties of alpha-MSH on DNA repair following UV damage:
1. ELIMINATES/DECREASES PHOTOPRODUCTS 6-4PP, CPD, T-T DIMERS
2. OPTIMISES MELANOCYTE OUTPUT → MELANOGENESIS (PHYSICAL BARRIER)
3. OPTIMISES MC1R SIGNALLING

STRATEGY II: RISK FACTORS TO SKIN CANCER
We now turn our attention to the final piece of the puzzle:
The risk to skin cancers is characterised by four fundamental elements. It is beyond the realm of this discussion to go deeper into all of these, but these are summarised as:
(i) a partial loss of function of the MC1 Receptor;
(ii) insufficient production (barrier function) of melanin;
(iii) insufficient cellular response (signalling of mc/kc); and
(iv) UV exposure (chronic/dose).

These four factors in Caucasian (fair-skinned) individuals significantly increase the probability of developing skin cancers.

STRATEGY II: ALPHA-MSH TO DATE – SCENESSE® IN APPLICATION
The final question is: what role do alpha-MSH or SCENESSE® play in the mitigation, abrogation and prevention of actinic damage leading to increased skin cancer risk?

Without reading now the precise mechanism of alpha-MSH and its role, we share with you the evidence to date, provided by the use of SCENESSE® in the first of two steps, in demonstrating that it addresses the risk factors to the genesis of skin cancers:
1. reducing the chances of sunburn in Caucasians (apoptosis);
2. reducing photo products following damage from UV-radiation; and
3. increasing DNA reparative efficiency.

The missing link for CLINUVEL to provide through the use of SCENESSE® – and which would have had limited or no value without the acknowledgement of the technology and its scientific data by the most recent FDA approval – is to demonstrate in 20 healthy human subjects and six genetically affected patients (expressed in 104 skin biopsies) that the treatment positively affects photoproducts and DNA repair.

CLINUVEL is awaiting ethics approvals before we are allowed to start these smaller trials.

These new data, together with the existing label of systemic melanogenesis and systemic photoprotection, are of value to CLINUVEL and to its follow-on melanocortin products, and are the principal reason why most of management want to see the endgame of this Company.

CLINUVEL’s PORTFOLIO
In conclusion, we have informed our long-term investors for years how we would concentrically expand our focus and specialise on both the core technology and knowhow residing with our valuable managers and staff.

The risk of gradually expanding our R&D and building out one’s specific knowhow and expertise is lower and makes much sense from a commercial perspective.

The essential part in our sector is to obtain valuable claims to medicinal and consumer products. For this one needs to generate data which add and integrate prior knowledge.

With the global emergence of interest in melanocortins, as well as our data generated in patients, we now have a final and principal target left to fulfil to put Australian-based CLINUVEL on a wider global map:

It will be the first company to provide evidence that its technology positively affects DNA damage repair caused by UV-radiation, as systemic photoprotection and repigmentation has been proven. The scientific and commercial excitement could only be translated into future commercial reality if and when the FDA would approve SCENESSE®.

CLINUVEL has pioneered and fought along the way, this last piece of the trilogy is worth persisting for. This is why our management team stays together for more years to come as opposed to walking away after the FDA approval.

I am left to thank you shareholders for assisting the EPP patients globally and staying with us. It has been far from a simple journey but in every aspect it has been valuable.

Before I finish up, please put your hands together for the last time for Stan McLiesh our invaluable Board member and Chairman without whom this Company would not be where we are today.

Thank you for your attention.

– End –

About CLINUVEL PHARMACEUTICALS LIMITED
CLINUVEL PHARMACEUTICALS LTD (ASX: CUV; NASDAQ INTERNATIONAL DESIGNATION ADR: CLVLY; XETRA-DAX: UR9) is a global biopharmaceutical company focused on developing and delivering treatments for patients with a range of severe genetic and skin disorders. As pioneers in photomedicine and understanding the interaction of light and human biology, CLINUVEL’s research and development has led to innovative treatments for patient populations with a clinical need for photoprotection and repigmentation. These patient groups range in size from 5,000 to 45 million worldwide. CLINUVEL’s lead compound, SCENESSE® (afamelanotide 16mg), was approved by the European Commission in 2014 and the US Food and Drug Administration in 2019 for the prevention of phototoxicity (anaphylactoid reactions and burns) in adult patients with erythropoietic protoporphyria (EPP). More information on EPP can be found at http://www.epp.care. Headquartered in Melbourne, Australia, CLINUVEL has operations in Europe, Singapore and the USA. For more information please go to http://www.clinuvel.com.
SCENESSE® is a registered trademark of CLINUVEL PHARMACEUTICALS LTD.

Head of Investor Relations
Mr Malcolm Bull, CLINUVEL PHARMACEUTICALS LTD

Investor enquiries
https://www.clinuvel.com/investors/contact-us

Forward-Looking Statements
This release contains forward-looking statements, which reflect the current beliefs and expectations of CLINUVEL’s management. Statements may involve a number of known and unknown risks that could cause our future results, performance or achievements to differ significantly from those expressed or implied by such forward-looking statements. Important factors that could cause or contribute to such differences include risks relating to: our ability to develop and commercialise pharmaceutical products, including our ability to develop, manufacture, market and sell biopharmaceutical products; competition for our products, especially SCENESSE® (afamelanotide 16mg); our ability to achieve expected safety and efficacy results through our innovative R&D efforts; the effectiveness of our patents and other protections for innovative products, particularly in view of national and regional variations in patent laws; our potential exposure to product liability claims to the extent not covered by insurance; increased government scrutiny in either Australia, the U.S., Europe and Japan of our agreements with third parties and suppliers; our exposure to currency fluctuations and restrictions as well as credit risks; the effects of reforms in healthcare regulation and pharmaceutical pricing and reimbursement; that the Company may incur unexpected delays in the outsourced manufacturing of SCENESSE® which may lead to it being unable to supply its commercial markets and/or clinical trial programs; any failures to comply with any government payment system (i.e. Medicare) reporting and payment obligations; uncertainties surrounding the legislative and regulatory pathways for the registration and approval of biotechnology based products; decisions by regulatory authorities regarding approval of our products as well as their decisions regarding label claims; any failure to retain or attract key personnel and managerial talent; the impact of broader change within the pharmaceutical industry and related industries; potential changes to tax liabilities or legislation; environmental risks; and other factors that have been discussed in our 2019 Annual Report. Forward-looking statements speak only as of the date on which they are made, and the Company undertakes no obligation, outside of those required under applicable laws or relevant listing rules of the Australian Securities Exchange, to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise. More information on the forecasts and estimates is available on request. Past performance is not an indicator of future performance.

www.clinuvel.com
Level 11 T +61 3 9660 4900
535 Bourke Street F +61 3 9660 4999
Melbourne
Victoria, Australia, 3000