CLINUVEL

MEDIA RELEASE

CLINUVEL TRIAL RESULTS SHOW DRUG REDUCES DNA DAMAGE

Results in "children of the moon" disorder have implications for populations at highest risk of skin cancer

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ASX:	CUV
XETRA-DAX:	UR9
ADR LEVEL 1:	CLVLY

Results from a clinical trial in a genetic DNA repair disorder show that a new drug – afamelanotide – may be able to reduce the development of skin cancers. The trial results are the first showing the potential of afamelanotide, a melanocortin drug under development by CLINUVEL, to protect and treat patients with xeroderma pigmentosum (XP), a rare disorder which causes extreme rates of skin cancers and forces patients to live in the dark.

"XP patients are known as 'children of the moon' due to their need to avoid any light and sun exposure or risk severe, aggressive skin cancers from an early age," CLINUVEL's expert genomic scientist, Dr Jessica Nucci said. "Our first clinical trial results demonstrate that afamelanotide in adult XP patients can reduce key markers of light and ultraviolet DNA damage, suggesting we may be able to reduce the risk and frequency of skin cancers in these patients."

Xeroderma pigmentosum affects patients' ability to repair DNA skin damage following exposure to light, particularly ultraviolet (UV) radiation. The disorder – which affects an estimated one in a million individuals – leads to a 1,000-fold increase in the risk of skin cancer and, tragically, a life expectancy of around 30 years.

Australian biopharmaceutical company CLINUVEL started clinical trials of afamelanotide in XP patients in 2020, aiming to assess whether treatment with the drug could safely reduce the number of photoproducts – breakages in the DNA helix known as CPDs – as well as showing improvement in other markers of skin damage.

Results from the first three XP patients treated showed a reduction in CPDs, particularly at deeper levels of the skin, as well as a decrease in sunburn (under controlled laboratory conditions). Key markers such as p53 and γH2AX also showed response to the drug.

The expert physicians caring for the XP patients assessed that afamelanotide treatment provided effective systemic photoprotection and was well tolerated.

"These results are exciting as the findings may be translated to wider populations who are at higher risk of skin cancer due to DNA damage, such as those who are immunosuppressed or with fair skin, blue eyes and fair hair," Dr Nucci said. "In the immediate term, we have multiple studies of afamelanotide ongoing which

may provide greater evidence of the potential of the drug to assist DNA regeneration in both XP patients and disease-free subjects."

Afamelanotide belongs to the family of melanocortins, hormones and their analogues, which are recognised to activate human pigmentation, reduce oxidative damage, inflammation and swelling, and optimise the response of skin cells to UV-induced damage. CLINUVEL is already marketing a controlled-release formulation of afamelanotide – known as SCENESSE® – as *the world's first photoprotective drug* for the rare disorder erythropoietic protoporphyria (EPP). Further results from the Company's DNA repair program are expected later in 2023.

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Note to media: CLINUVEL has released further investor and technical releases on results from the CUV156 study. For more details, go to www.clinuvel.com.

About CLINUVEL PHARMACEUTICALS LIMITED

CLINUVEL (ASX: CUV; ADR LEVEL 1: CLVLY; XETRA-DAX: UR9) is a global specialty pharmaceutical group focused on developing and commercialising treatments for patients with genetic, metabolic, systemic, and life-threatening, acute disorders, as well as healthcare solutions for specialized populations. As pioneers in photomedicine and the family of melanocortin peptides, CLINUVEL's research and development has led to innovative treatments for patient populations with a clinical need for systemic photoprotection, assisted DNA repair, repigmentation and acute or life-threatening conditions who lack alternatives.

CLINUVEL's lead therapy, SCENESSE® (afamelanotide 16mg), is approved for commercial distribution in Europe, the USA, Israel and Australia as the world's first systemic photoprotective drug for the prevention of phototoxicity (anaphylactoid reactions and burns) in adult patients with erythropoietic protoporphyria (EPP). Headquartered in Melbourne, Australia, CLINUVEL has operations in Europe, Singapore, and the USA. For more information, please go to https://www.clinuvel.com.

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Forward-Looking Statements
This release contains forward-looking statements, which reflect the current beliefs and expectations of CLINUVEL's management. Please see the full disclaimer on CLINUVEL's website.

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