Company Announcement

Tuesday 23rd September, 2008
Melbourne, Australia.

Clinuvel commences Phase II trial in Photodynamic Therapy

- Afamelanotide gains approval to test its 5th indication in oncology (gastro-enterology)
- Afamelanotide as adjunct therapy in Photodynamic Therapy
- Improvement quality of life in cancer patients

Clinuvel Pharmaceuticals Limited (ASX: CUV; XETRA-DAX: UR9; ADR: CLVLY) announces that it has started an additional clinical application to test its photoprotective afamelanotide (CUV1647) in a randomized double-blind Phase II trial in patients undergoing Photodynamic Therapy (PDT). With PDT, Clinuvel has now met the final regulatory requirements to test its 5th indication for its proprietary photoprotective afamelanotide in light and UV related skin disorders.

The Phase II PDT trial has started in a prime hospital in Paris and will include multiple centres in France. The first four patients have received afamelanotide and results from the trial are expected within 12 months, as a single dose afamelanotide will be administered to 30 patients in this trial.

PDT is a treatment mainly used in oncology (gastro-enterology) to endoscopically eradicate incipient pre-malignant lesions of the esophagus ('Barrett's esophagus') and as a palliative treatment in bile duct cancer (cholangio-carcinoma). PDT combines the intravenous administration of a photosensitizer (porfimer sodium) with targeted illumination using a focal light source to activate photochemical tissue reactions. This combination proves highly selective in cancer treatment.

A consistent side effect and significant clinical disadvantage to the use of porfimer sodium as a photosensitizer is the associated phototoxicity of the skin experienced for up to 3 months following treatment. Consequently, PDT patients are obliged to observe continuous precautions to avoid exposure to light and UV. Exposure to UV results in erythema, acute blistering and severe burns of the skin, causing intense pain and skin damage. Conventional UV sunscreens are of no value in protecting against phototoxic reactions following PDT, and patients are forced to stay indoors over a three months period. It is anticipated that afamelanotide may offer photoprotection in PDT patients who are at high risk of phototoxicity.

Clinuvel's CEO, Dr Philippe Wolgen said:
"This is a first for Clinuvel today, with PDT we have obtained regulatory clearance for the broader scope of afamelanotide as a potential photoprotective drug as adjunct therapy in oncology.
PDT is of significance from a biochemical and development point of view as there is a strong commonality with erythropoietic protoporphyria (EPP) currently in Phase III trials. The molecules (protoporphyrin IX) causing the severe skin symptoms in EPP patients are of the same family of molecules purposefully used as photosensitizers in PDT to obtain maximum effectiveness in cancer treatment. The clinical advantage of using afamelanotide to reduce the phototoxicity in PDT is based on the rationale found in EPP.
It is believed that photoprotective afamelanotide could prove to have a positive impact on the quality of life in cancer patients who are at risk of severe skin burns following PDT treatment. Our emphasis remains on safety and demonstrable efficacy."

About PDT

PDT is a common cancer treatment globally. In PDT, a photosensitising agent is used as well as a specific light source and oxygen to selectively destroy cancer cells through a photodynamic reaction. Photosensitising agents are drugs that only become active when light of a certain wavelength is directed onto the area where they are concentrated.

In the first step of PDT for cancer treatment, a photosensitising agent (e.g. porfimer sodium) is injected into the bloodstream. The agent is absorbed by cells all over the body, but stays in cancer cells longer than it does in normal cells. Approximately 24 to 72 hours after injection, when most of the agent has left normal cells but remains in cancer cells, the tumour is exposed to light. The photosensitizer in the tumour absorbs the light and produces an active form of oxygen that destroys nearby cancer cells.

Photosensitizing agents such as porfimer sodium make skin and eyes ultra sensitive to light for up to 90 days following treatment. Patients are strictly advised to avoid direct sunlight and bright indoor light for the duration of 90 days. Patients suffer intense pain associated with this photosensitivity and are forced to avoid sunlight/artificial light for up to 90 days following treatment.

The main advantages of PDT over other cancer therapies include the significant degree of selectivity of drug accumulation in the tumour tissue, the absence of systemic toxicity of the photosensitiser, the ability to irradiate only tumour, and the ability to retreat a recurrent tumour. PDT has proven valuable as a treatment option in cancers such as Barrett's Esophagus, Endobronchial, Gastric, Papillary bladder and Gliomas.

Appendix I (Following Code of Best Practice, ASX)

Name of trial
CUV025. A Phase II, multicentre, double blind, placebo-controlled pilot study to evaluate the safety and efficacy of afamelanotide as adjunctive therapy in patients undergoing Photodynamic Therapy (PDT) utilizing porfimer sodium.

Primary endpoints
a) To determine whether afamelanotide implants can reduce the period of phototoxicity experienced by patients who have undergone Photodynamic Therapy with porfimer sodium.

Secondary endpoints
a) To evaluate the effect of afamelanotide on quality of life;
b) To evaluate the safety and tolerability of afamelanotide by measuring treatment-emergent adverse events.

Blinding status
Double blind

Product Development Status
Good Manufacturing Practice (GMP) Standard.

Treatment method, frequency, dose levels
A single implant (16 mg afamelanotide or placebo) administered subcutaneously.

Number of trial subjects
Up to 30 patients

Subject selection criteria
a) Male or female Caucasian subjects undergoing PDT with porfimer sodium;
b) Aged greater than 18 years;

Trial location
Multicentre trial in France including Amiens, Angers, Brest, Marseille and Paris Hospitals.

Expected duration of the trial
Approximately 6-12 months.

Trial standard
In compliance with Good Clinical Practices (GCP) and ICH guidelines.

About Clinuvel Pharmaceuticals Limited

Clinuvel Pharmaceuticals Limited (ASX: CUV, XETRA: UR9, ADR: CLVLY) is an Australian biopharmaceutical company developing its photoprotective drug afamelanotide as a preventative treatment for a range of UV-related skin disorders as well as cancer related treatments.

The five indications are:

Indication	Description	Clinical Trial Status
Erythropoietic Protoporphyria (EPP)	Absolute sun intolerance	Phase III trials started April 2007
Polymorphic Light Eruption (PLE / PMLE)	Severe sun poisoning	Phase III trials started May 2007
Actinic Keratosis (AK) and Squamous Cell Carcinoma (SCC) in Organ Transplant Patients (OTP)	Precursor to skin cancer / non-melanoma skin cancer	Phase II trials started October 2007
Solar Urticaria (SU)	Acute anaphylactic reaction to sun	Phase II trials approved June 2008
Phototoxicity associated with Photodynamic Therapy (PDT)	Photosensitivity associated with cancer treatment	Phase II trial started September 2008

Our Phase I and II human clinical trials using afamelanotide have demonstrated that the drug is well tolerated and no significant safety concerns have been identified to date.

During its development program, Clinuvel will work closely with global regulators to facilitate approval of afamelanotide to obtain marketing authorization.

For more information contact:
Colin Mackie
Head of Corporate Development
Clinuvel Pharmaceuticals Limited
Tel: +61 3 9660 4900
investorrelations@clinuvel.com