ASX ANNOUNCEMENT

LANDMARK STUDY CONFIRMS FGF5 AS CRITICAL REGULATOR OF HAIR GROWTH IN HUMANS

- **Breakthrough scientific study identifies FGF5 as crucial to limiting human hair growth**
- **Cellmid is the global leader in FGF5 inhibitor hair growth products**
- **Findings are first human mechanism of action evidence of Cellmid's FGF5-blocking strategy**

SYDNEY, Tuesday, 15 July 2014: Cellmid Limited (ASX: CDY) reports publication of a highly significant, peer-reviewed scientific paper that, for the first time, directly links FGF5 as a cornerstone regulator of **human** hair and eyelash growth.

Cellmid's hair growth products contain FGF5-inhibiting botanical extracts; the findings of this study confirm blocking FGF5 as a highly attractive therapeutic approach to increase hair growth.

Cellmid's hair growth products containing FGF5 inhibiting botanical extracts have been developed using mechanism of action evidence obtained from other mammals. Whilst clinical trials confirmed that the Company's products reduce hair loss and increase hair growth in humans, this is the first time an independent study elucidates direct mechanism of action between excessive hair growth and defective *FGF5* gene in humans.

The study, entitled *FGF5 is a crucial regulator of hair length in humans*, was released online by the prestigious journal Proceedings of the National Academy of Sciences (PNAS; http://www.pnas.org/content/early/2014/07/02/1402862111.abstract. Article doi: 10.1073/pnas.1402862111). The study was conducted by scientists from the Departments of Dermatology, Biochemistry, Genetics and Epidemiology at the Columbia University Medical Centre, New York, USA.

The aim of the study was to determine the cause of trichomegaly (extreme eyelash growth) presenting in two families. Inherited (familial) trichomegaly is an extremely rare condition, with only two cases reported in the scientific literature prior to this study. Subjects with trichomegaly are otherwise healthy but present with extremely long eyelashes. Eyelashes are a modified form of hair and are subject to the same growth cycle as scalp and other terminal hair follicles. As such, eyelashes are susceptible to the same molecular signals that affect hair on the head.

Using a cutting edge genome analysis technique ("whole-exome sequencing"), the study authors sequenced the DNA from every gene in five trichomegaly-affected subjects. From nearly 43,000 variants identified across the full genome (~20,000 genes) analysed, only mutations arising in a single gene, *FGF5*, caused trichomegaly.

Genetic studies in animals with abnormally long coats have previously identified deletion or mutation to *fgf5* as the culprit (the so-called *angora* mutation). Because the basis of hair growth is highly conserved among mammals, key aspects of human

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hair growth have been assumed to closely mirror those of animals. However, prior to this study, FGF5 had never been directly proven to be critical to limiting **human** hair growth.

"This elegant and well-conducted study comprehensively demonstrates the critical role FGF5 plays in human hair loss", said Darren Jones, Head of Product Development at Cellmid, "and this study validates the approach of our scientists in seeking to block FGF5 to restore hair growth. It also re-affirms FGF5 inhibition to be a safe and specific mechanism by which to promote hair growth."

"Advangen's scientists were far ahead of the curve in targeting FGF5", added Maria Halasz, Cellmid's CEO. "From the first scientific reports of FGF5's significance in animals, the team recognised the potential to safely and effectively treat hair loss and restore hair growth by blocking FGF5".

Cellmid, through its wholly owned subsidiary Advangen, is the leader in developing clinically validated products for boosting healthy hair growth via FGF5 inhibition. The company has multiple intellectual property assets pertaining to FGF5 inhibition, including patents for compounds, compositions and formulations, as well as vast proprietary knowledge including definitive functional assays for identifying FGF5 inhibitors.

Compellingly, this PNAS publication validates FGF5 blocking as a mechanism by which to promote eyelash growth. The current market leader in drug treatments for eye lash, Latisse (Allergan), sells over $150 million annually in the USA alone.

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Cellmid Limited (ASX: CDY)
Cellmid is an Australian biotechnology company with lead drug candidates in immuno-oncology. The Company is developing innovative novel therapies and diagnostic tests for a number of cancer indications, in particular solid tumours. Cellmid holds the largest and most comprehensive portfolio of intellectual property related to the novel oncology target midkine and midkine antagonists globally. The Company's most advanced development programmes involve using its anti-midkine antibodies in addition to commercialising midkine as a biomarker for the early diagnosis and prognosis of cancer. For further information please see www.cellmid.com.au.

FGF-5 inhibitor hair growth products
In 2010 Cellmid set up a dedicated subsidiary, Advangen International Pty Ltd, for the development of midkine for hair growth. While developing this program, the Company launched a range of FGF-5 inhibitor hair growth products on the market in 2012 under license and acquired the owner of the technology, Advangen Inc. (Japan) in May 2013. Since then, Cellmid has been actively building its distribution in Australia, China, Japan and other major markets.