

## ASX ANNOUNCEMENT

### Treg ANTIBODY PATENT ALLOWED IN USA

- **US patent allowance for treating and preventing autoimmune disorders using midkine antibodies**
- **Novel mechanism of action boosting regulatory T cells (Tregs)**
- **Patent commercially important to Cellmid's therapeutic antibody programme**

**SYDNEY, Monday, 07 May 2012: Cellmid Limited (ASX: CDY)** advises that Notice of Allowability has been issued by the United States Patent and Trademark Office (USPTO) for Cellmid's patent application "Method for Treatment or Prevention of Disease Associated with a Functional Disorder of Regulatory T Cells".

The allowed patent has been designated US patent number 8,128,934 (patent '934). This key patent in Cellmid's antibody patent portfolio adds yet another layer of intellectual property protection to the company's commercial programme for the treatment of inflammatory and autoimmune diseases using antibodies.

Patent '934 covers the use of anti-midkine (MK) antibodies to increase the number of regulatory T cells (Tregs). Tregs are central controllers of autoimmune responses; when Treg numbers are too low, the body's immune system can attack its own tissues, leaving the subject vulnerable to autoimmune diseases.

Raising Treg numbers can mitigate such autoimmune attack. Published studies show that MK suppresses Treg numbers. Cellmid's preclinical trials showed that inhibiting MK using anti-midkine antibodies increases Tregs and in animal models inhibited MK alleviated autoimmune disease.

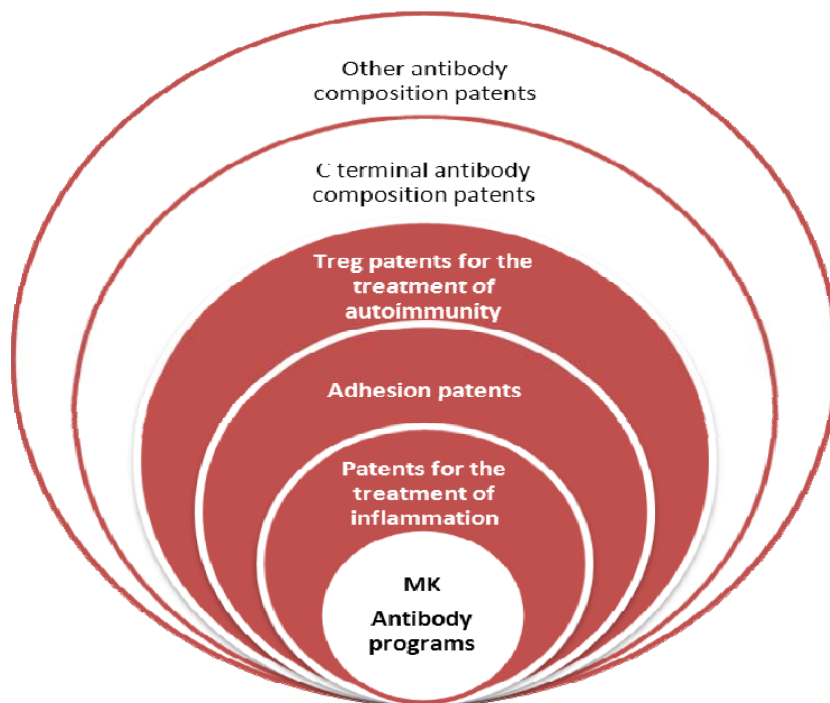
"The granting of patent '934 is a significant commercial outcome for Cellmid's antibody programme. This patent reinforces the already strong IP position of Cellmid's humanised MK antibody", said Cellmid's Head of Product Development, Darren Jones.

The Company's first line of patent protection for its antibody programme is provided by the anti-inflammatory patent family entitled Agents Comprising Midkine or Inhibitor Thereof as Active Ingredient granted in all major jurisdictions globally including the USA. In April 2012 additional patent allowance has been received in the USA for Cellmid's antibody programme for the treatment of surgical adhesions.

The current Notice of Allowability adds yet another layer of strength and extends the life of the intellectual property portfolio. In addition, two composition patent families for the Company's anti-midkine antibodies are currently under examination.

Figure 1 below illustrates all the layers of patent protection, granted (red background) and pending (white background), afforded to Cellmid's antibody programme. Collectively, these patent families provide Cellmid with a uniquely powerful intellectual property position in relation to the therapeutic use of anti-midkine antibodies.

In addition to this group of patents, Cellmid holds the most significant intellectual property assets related to MK worldwide. Cellmid's patent portfolio currently includes 75 patents in 20 patent families, covering the use of MK and anti-MK agents for therapeutic purposes in a number of diseases and the use of MK as a diagnostic marker in cancer and other disorders.



**Figure 1: Anti-midkine antibody patent strategy.** Cellmid's anti-midkine antibody patents provide multilayered protection around the company's therapeutic antibody assets. The patent portfolio places Cellmid in a uniquely powerful commercial position in relation to this novel therapeutic target.

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**Cellmid Limited (ASX: CDY)**

Cellmid is an Australian biotechnology company developing innovative novel therapies and diagnostic tests for inflammatory diseases, heart attack and cancer. Cellmid holds the largest and most comprehensive portfolio of intellectual property related to midkine and midkine antagonists globally. The Company's most advanced clinical development programme is for the treatment of acute myocardial infarction (AMI) utilising the midkine protein. Cellmid is also developing anti-midkine antibodies for the treatment of inflammatory and autoimmune disorders. In addition, Cellmid is commercialising midkine as a biomarker for cancer diagnosis. Elevated midkine concentration in the blood and other body fluids is strongly indicative of cancer. Cellmid's first product, the MK-ELISA, is a blood test that sensitively and accurately measures serum midkine levels.

**Midkine (MK)**

Midkine is a multifunctional growth factor that is highly expressed during embryonic development. Midkine modulates many important biological interactions such as cell growth, cell migration and cellular adherence. These functions are relevant to cancer, inflammation, autoimmunity, ischemia, nerve growth/repair and wound healing. Midkine is barely detectable in healthy adults and only occurs as a consequence of the pathogenesis of a number of different disorders. Midkine expression is often evident very early in disease onset, even before any apparent physical symptoms. Accordingly, midkine is an important early marker for diagnosing cancers and autoimmune diseases. Finally, because midkine is only present in a disease context, targeting midkine does not harm normal healthy tissues.