

Circadian achieves key manufacturing milestone for cancer drug candidate

- Scientific Advisory Board Chairman Reports at international conference -

- Important milestone in VGX-300 cancer therapeutic program
- Demonstrated ability to produce protein drug in cell culture – an important precursor to large scale manufacturing
- Availability of protein in substantial supply enables additional key pre-clinical studies

Circadian Technologies Limited (ASX:CIR), a developer of novel, biologics-based treatments for cancer, announced today the achievement of a key manufacturing milestone in its VGX-300 cancer therapeutics program allowing the company to progress pre-clinical development.

Circadian has achieved the production of the VGX-300 protein in cell culture to enable production at gram quantities, which are sufficient to advance the anti-cancer product in pre-clinical studies.

Chairman of Circadian's Scientific Advisory Board, Professor Kari Alitalo, is reporting this important manufacturing program data in a plenary presentation at the 7th Annual Angiogenesis Foundation International Conference in Boston today.

VGX-300 is a soluble form of the VEGFR-3 receptor, and is being developed by Circadian as a novel anti-cancer drug. VGX-300 is designed to bind and neutralize the proteins VEGF-C and VEGF-D - two key mediators of tumour blood and lymphatic vessel development - thereby "starving" the tumour of oxygen and nutrients and preventing cancer spread through the blood and lymphatic system.

Robert Klupacs, CEO of Circadian said: "VGX-300 belongs to a relatively new category of biological drugs, and producing the protein at a sufficient yield was not a certainty at the inception of the program."

"Being able to produce VGX-300 in gram quantities is therefore a significant milestone in the program. Now that we have the protein in substantial supply, we will initiate critical efficacy studies in a range of animal models which will build on the previously published anti-cancer effects."

Professor Alitalo, Scientific Head of the Biomedicum at the University of Helsinki, was recently awarded a share of the prestigious InBev-Baillet Latour Health Prize, for his discovery of VEGFR-3 and his demonstration that VEGFR-3 plays a key role in the spread (metastasis) of tumour cells via the lymphatic system.

Circadian Technologies owns world-wide rights to develop Professor Alitalo's patented discoveries covering VEGFR-3 which originated from the University of Helsinki and the Ludwig Institute for Cancer Research. Circadian currently has three products in preclinical development for cancer treatment based upon this intellectual property.

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About Circadian Technologies Limited

Circadian (ASX:CIR) is a biologics drug developer utilising the significant intellectual property portfolio around Vascular Endothelial Growth Factor (VEGF) C and D that it has accumulated in its unlisted wholly owned subsidiary Vegemics. The applications for the VEGF technology, which functions in regulating blood supply, are substantial and broad. Circadian's internal product development programs are focussed on novel anti-cancer therapeutics for large unmet needs. Circadian has also licensed rights to some parts of its intellectual property portfolio for the development of other products to UK company Ark Therapeutics Group plc (LSE: AKT) and ImClone Systems (a wholly owned subsidiary of Eli Lilly & Company - NYSE: LLY). Ark is developing Trinam®, a treatment for vascular grafts associated with renal dialysis based upon Circadian intellectual property which has commenced Phase 3 clinical trials. ImClone Systems is currently developing an antibody-based drug targeting VEGFR-3 for the treatment of solid tumours.

The VEGF patent portfolio developed by LICR and Licentia has been assigned to Vegemics. Vegemics also has rights to CoGenesys Inc/Human Genome Sciences Inc's VEGF-C intellectual property.

About VGX-300 and cancer

The clinical and outstanding commercial success of Avastin®, an antibody that blocks the activity of VEGF-A, clinically validated anti-angiogenic drugs as an effective means of inhibiting solid tumour growth. By blocking the interaction of VEGF-A with its receptors, primarily VEGFR-2, the multi-billion dollar cancer therapeutic slows tumour growth by inhibiting blood vessel recruitment into the tumour, effectively starving tumours of essential nutrients and oxygen required for growth. Avastin, which is sold by Genentech, now part of Roche, had U.S. sales in 2008 of US\$2.7 billion and worldwide sales in excess of US\$7.5 billion.

VEGF-C and VEGF-D inhibitors, VGX-100, VGX-200 and VGX-300, are key therapeutics in the portfolio of Circadian's unlisted subsidiary Vegemics, which block these alternative stimulators for VEGFR-2. As such, they have the potential to block blood vessel growth in tumours resistant to anti-VEGF-A therapy and, when used in combination with drugs like Avastin®, may completely shut down angiogenesis (the growth of blood vessels) mediated by VEGFR-2, resulting in greater clinical efficacy.

VEGF-C and VEGF-D are also the only known proteins to bind and activate VEGFR-3 which drives lymphatic vessel and tumour-associated blood vessel growth. Inhibitors of VEGF-C, VEGF-D and VEGFR-3 thus have therapeutic potential to inhibit not only primary tumour growth through their anti-angiogenic activities, but to also inhibit tumour spread or metastasis via the lymphatic vessels - a mechanism of tumour dissemination that is often the deadliest aspect of many tumour types and a mechanism that is not effectively blocked by anti-VEGF-A or anti-VEGFR-2 therapeutics.

VGX-300 is a recombinantly produced protein comprising the soluble form of the VEGFR-3 molecule linked to an immunoglobulin. It is designed to capture and block the activity of the proteins VEGF-C and VEGF-D.