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(TOKYO PRO Market Stock Codes: 4580)

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Announcement of Developing Contrast Agent Using Nano-particle for Ultrasound Contrast
- for precise diagnosis of cancer -

Mebiopharm Co., Ltd. (Tokyo, Japan, CEO: Tadashi Fujisawa, hereinafter 'MEBIO') announces as follows that MEBIO has been commissioned by a medical equipment company to develop a contrast agent, has finished a basic development stage and has been able to go forward into next development stage.

This development is based on nano-particle conjugating ligand which directs to a tumor cell and is for a practical use of new contrast agent using MEBIO' s DDS (Drug Delivery System) nano technology.

MEBIO has an innovative and the most advanced DDS technology. The technology is a nano technology that is added targeting function 'ligand' that binds to a particular target cells and antigens to a conventional liposome. MEBIO has also established a manufacturing standard (GMP manufacturing) for liposome manufacturing required for human application, and a mass manufacturing for marketing and circulation. This will allow many researchers and companies in the world to entrust MEBIO with manufacturing of nano-particle.

1. Purpose of the Development and its Background

In recent ultrasound diagnosis for cancer, contrast agents have been used to conduct accurate and precise examination. Micro bubbles encapsulating echo gas such as air and non-hazardous fluorocarbon gas have been used as contrast agent for ultrasound diagnosis, but it is considered that it is hard to reach at the depth of tumor tissue because of its large diameter of 2-3 um. Small sized bubble (nano bubble) which is smaller than existing micro bubbles are expected to develop. And also, adding a targeting function by conjugating ligand which binds to a tumor cells on a surface of nano bubble can make a clearer image as contrast agent.

2. Development Status

Basic Development Stage

To provide a nano sized contrast agent, MEBIO studied manufacturing of nano-particle encapsulating echo gas into a conventional liposome. Optimizing lipid components and sizing, MEBIO has manufactured nano bubble encapsulating echo gas which possesses potential as ultrasound contrast agent.

Next Development Stage

Transferrin binds to transferrin receptor which is generally expressed on the surface of tumor tissues in a larger amount. MEBIO studies conjugating transferrin as ligand on a surface of nano-particle above and starts to manufacture the world's first such nano-particle.

By encapsulating echo gas and conjugating transferrin on such nano-particle, it makes possible to accumulate on tumor tissue after reaching vascular endothelial at the depth of tumor. This will be useful for precise cancer diagnosis by ultrasound contrast compared to existing contrast agent, especially diagnostic agent for deep-seated cancer.

MEBIO will contribute a lot to improve health-care in the world by providing more precise examination method for new ultrasound diagnosis of cancer.

It is expected that the influence to performance in this fiscal year (2013/3) is slight.