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Acucela Paper Published in Investigative Ophthalmology and Visual Science

BOTHELL – January 26, 2007 — Acucela Inc., a biotechnology company focusing on discovering and developing new treatments for blinding eye diseases, published a paper in *Investigative Ophthalmology and Visual Science* (IOVS 2007 Jan;48(1):412-21), a leading journal for eye research.

The paper, authored by a number of Acucela scientists, is entitled “Minocycline protects photoreceptors from light and oxidative stress in primary bovine retinal cell culture.” The paper describes how Acucela’s proprietary OcuScreen™ assays established efficacy of Minocycline in protecting retinal cells from light damage. Minocycline is a semisynthetic derivative of tetracycline with improved tissue adsorption into the central nervous system and with a longer half-life. In addition to its antibiotic activity, minocycline has anti-inflammatory and antiapoptotic activities and is effective in delaying disease progression in some models of neurodegeneration.

Dr. David Leung, a senior scientist at Acucela and first author of the paper, noted, “The demonstration of minocycline’s protective action against light-induced damage and oxidative stress in our cell based assays and in previous animal models suggests usefulness of OcuScreen™ in selecting protective compounds. The finding of toxic compounds within this family also suggests the utility of OcuScreen™ for identifying and eliminating compounds that are toxic to retinal cells during the early stage of drug development. Because the activities of minocycline and its analogues that we studied varied by minor structural modifications, our data suggest structural activity development of minocycline-related molecules could lead to a potent molecule for AMD therapy.”

About Acucela

Acucela Inc. is a biotech company discovering new drug therapies for eye diseases. Neurodegenerative retinal diseases such as macular degeneration, Stargardt’s disease, retinitis pigmentosa and glaucoma, significantly affect quality of life for over 50 million people worldwide, and there is a drastic lack of therapies available. Until now, ophthalmic drug discovery technologies have been very limited. Acucela uses proprietary OcuScreen™ disease-specific assays and technologies to identify and develop compounds that have safety and efficacy in treating these diseases. These technologies represent a tremendous breakthrough in ophthalmic drug discovery.

Acucela Forward-Looking Statement

This press release contains "forward-looking statements" as that term is defined in the Private Securities Litigation Reform Act of 1995. These statements involve risks and uncertainties, which may cause results to differ materially from those set forth in the statements. The forward-looking statements include statements regarding product development. No forward-looking statement can be guaranteed, and actual results may differ materially from those projected. Acucela undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events, or otherwise.

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