

Sound Pharmaceuticals Receives Additional DoD Funding for Its Hearing Regeneration Product

SEATTLE, July 21 /PRNewswire/ — Sound Pharmaceuticals (SPI) has received an R&D contract award from the ONR for approximately \$1.6 million to optimize its lead drug candidate for hearing regeneration. SPI has developed a proprietary technology for regenerating auditory sensory cells within the inner ear of mammals involving p27Kip1, a cyclin dependent kinase inhibitor or CKI. CKIs shut down cell division or proliferation in many developing cells and tissues and are often expressed in adult organs to maintain cellular quiescence or terminal differentiation. In the hearing organ of mammals (cochlea), p27Kip1 prevents cellular proliferation and regeneration. For this reason, sensorineural hearing loss is irreversible and often progressive. Once auditory hair cells are lost they are never replaced. In p27 knockout mice, auditory hair cell regeneration occurs due to the unique ability of supporting cells to re-enter the cell cycle, proliferate and regenerate in to supporting cells and replacement hair cells. In p27 wild type mice, this proliferative and regenerative ability is absent. SPI has developed this novel technology into a drug that inhibits p27Kip1 in wild type cells and tissues, and is injecting that drug into the cochlea of deafened Guinea pigs. Results indicate that renewed supporting cell proliferation and hair cell regeneration occur in animals that have lost their hearing due to ototoxic or acoustic injury. In some animals, a return of auditory function has been observed. The ultimate goal of this work is to restore hearing to the severe to profoundly hearing impaired or deaf, especially those with recent traumatic injuries. This novel regenerating strategy may be applied to other non regenerating systems such as the brain or retina where p27Kip1 plays a similar role.

In 2005, the Office of Naval Research began funding this hearing regeneration project. This new funding brings the total level of funding on this specific p27 project to approximately \$3 million.

Sound Pharmaceuticals, Inc. is a privately held biopharmaceutical company with a focus on developing the first drugs for hearing loss and brain injury. For more information please contact Jonathan Kil, MD, President and CEO, 206-634-2559 or visit <http://www.soundpharma.com>.