

For Immediate Release, October 14, 2004:

Second Sight Medical Products Inc. announces DOE partnership to produce an Artificial Retina

Sylmar, CA., October 14, 2004 - Second Sight Medical Products Inc (SSMP) is pleased to announce its partnership with the Department of Energy Artificial Retina Project under a Cooperative Research and Development Agreement. The agreement, announced today by Secretary of Energy Spencer Abraham, leverages SSMP's experience in the development of implantable active retinal stimulators, and the technology leadership of five national DOE labs and three universities, in order to hasten the design and development of an advanced retinal prosthetic.

The artificial retina is intended to restore some useful vision to hundreds of thousands of people worldwide who suffer from advanced forms of outer retinal degenerative diseases. This collaborative effort, which includes scientists and engineers from Argonne, Lawrence Livermore, Los Alamos, Oak Ridge and Sandia National Labs along with researchers and clinicians from USC, NC State, and UC Santa Cruz, will conceive of, develop, and test cutting edge technologies to be implemented in advanced artificial retinas under development by SSMP, which will then proceed to clinical trials. This marks the first time in the history of the DOE that so many institutions spanning national labs, academic institutions and the private sector have joined forces to work towards a common goal.

To date the DOE has invested over \$8M in the project and anticipates an additional \$20M investment over the next 3 years. Second Sight will be responsible for integrating DOE technology into product designs that will eventually move on to clinical trials.

"The Department of Energy has led the way to many scientific breakthroughs, especially when several scientific disciplines combined to make a whole greater than the sum of the parts," Secretary Abraham said. "This project is one such example where biology, physics, and engineering have joined forces to deliver a capability that will enable blind people to see. This agreement between the DOE laboratories and the private sector will facilitate transfer of many aspects of DOE technology to a clinical device that has the potential of restoring sight to millions of blind individuals."

"The DOE's foresight in this area of biomedical engineering will give patients access to technologies that would not otherwise be available," said Robert Greenberg, President and CEO of Second Sight. "The national labs have an impressive roster of world class scientists and engineers and an array of leading edge equipment and technology that is unparalleled."

The mission of SSMP, a privately held company started in 1998 by philanthropist and entrepreneur Alfred Mann, is to develop, manufacture and market implantable prosthetics to help overcome visual impairments through collaboration and innovation. To date, the company has developed and was the first ever to implant a chronic active device that can electrically elicit visual percepts in blind patients. The technology development for this device was funded by a \$12.5M NIH grant awarded in 2000, along with private investment.

The technology uses an electrical signal from electrodes implanted on the surface of the retina to bypass the diseased cells in the retina and stimulate the remaining viable cells. The implant

consists of an array of these electrodes attached to the electronics that drive them. The ultimate resolution of the device is principally defined by the number of electrodes in the array. SSMP's first generation device which was tested successfully in an FDA approved clinical trial at USC consisted of an array of just 16 electrodes. Current efforts, including the DOE collaboration, are focused on dramatically increasing the number of electrodes in the device by orders of magnitude.

"The engineering challenges increase exponentially as the number of electrodes increases," states Greenberg. "You need to develop new arrays, new packages, and new interfaces. With this collaboration in place, the DOE labs can bring to bear their considerable expertise in technology development across several disciplines. Ultimately, the benefits of such technology development will not be limited to the blind, but will extend to many other diseases, and probably even beyond the biomedical arena."

SSMP's participation in the project is multi-faceted. The company is committed to matching the DOE funding and will provide design input, engineering and testing resources for the project. In addition, Second Sight will be responsible for integrating DOE technology into product designs that will eventually move on to clinical trials.

Unlike many advanced technology development efforts, the artificial retina does not have the luxury of an indefinite timetable. According to Greenberg, "Our goal is to have an FDA approved device to treat certain forms of Retinitis Pigmentosa and Macular Degeneration within the next five years and hopefully much sooner than that. This cooperative research agreement with the DOE will go a long way towards making that a reality."

For more information on Second Sight Medical Products Inc, please visit their website at <http://www.2-sight.com> Or call 1-818-833-5050, or write to Second Sight Public Relations, 12744 San Fernando Rd. Bldg. 3, Sylmar, CA, 91342.