

Attacking Lou Gehrig's™ Disease from All Angles:

UC San Diego stem cell researcher will participate in major U of Michigan research effort

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The potential use of stem cells to treat the paralyzing disease amyotrophic lateral sclerosis (ALS), or Lou Gehrig's disease, will be the focus of a new research project at the University of California, San Diego (UCSD) School of Medicine in partnership with the University of Michigan.

Twenty years ago, retail pioneer and philanthropist A. Alfred Taubman lost a good friend to ALS - an incurable, fatal disease. The memory of watching New York Sen. Jacob Javits slowly succumb to the nerve-killing condition has motivated him to support ALS research with a \$5 million gift to the University of Michigan. A major portion of the gift will support collaboration between U-M and UC San Diego scientist Martin Marsala, M.D., a stem cell researcher whose focus is protecting and repairing damaged spinal nerve cells.

Marsala, professor of anesthesiology at the UCSD School of Medicine, will collaborate with University of Michigan neurologist and scientist Eva Feldman, M.D., Ph.D., DeJong Professor of Neurology at U-M Medical School and director of their department's ALS clinic. She also heads the U-M Program for Neurology Research and Discovery.

The California Institute for Regenerative Medicine (CIRM) recently awarded Marsala a \$2.4 million grant for his research utilizing stem cells to repair spinal cord injury. He is an expert on grafting new cells into the spinal cord, and has studied the use of stem cells to treat spinal injuries caused by interruptions in blood flow. The use of this technique in ALS, which involves the death of the motor neurons that send signals to the muscles and control movement, could be a new frontier in treating the disease.

Marsala calls the gift a major boost to research.

"Mr. Taubman's generous funding allows us to venture into exciting new territory with stem cells," he said. "It gives patients great hope that our new research with our Michigan colleagues will translate the promise of stem cell technology into the reality of therapy for ALS patients."

Already, Marsala and Feldman have spent several weeks of collaborative research in Marsala's UC San Diego School of Medicine laboratory, implanting human spinal stem cells into animal spinal cords. The promising results of this study, which have not yet been published, form the basis for one prong of the attack on ALS that will be supported by Taubman's generous gift. If additional laboratory work proves successful, a clinical trial in ALS patients could begin within five years.

The University of Michigan ALS project will also study genetic tools to keep nerve cells from dying, and new ways of delivering promising drugs and genes directly into nerve cells.

"It's hard to imagine a more devastating disease than ALS," says Taubman, "Dr. Feldman and her team are doing miraculous work, and it's important that they have the resources to build on their momentum. I'm not a

doctor or a scientist, but I am an optimist who believes in the extraordinary possibilities of modern medicine. This is important work that must continue."

Taubman's gift contributes to the \$2.5 billion *Michigan Difference* campaign at the University of Michigan, and also to the \$1 billion *Campaign for UCSD* fundraising effort at UC San Diego.

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