

# Daughter's death sends mother on quest

By Meredith Wade  
COMMUNITY NEWS WRITER

CARMEL VALLEY - Debbie Shimizu's painful loss motivated her lifetime of giving.

The Carmel Valley resident is one of the organizers and the driving force behind an annual golf tournament that raises money for mitochondrial disease research.

The eighth annual UCSD Christini Fund Golf Tournament will be Sept. 25 at the Del Mar Country Club. The fee is \$400 for an individual and \$1,500 for a foursome. All proceeds benefit mitochondrial disease research.

"Eight years ago yesterday we lost our daughter to Leigh's Syndrome, which is a mitochondrial disease," she said. Her daughter Christine was 2 when she died.

Leigh's Syndrome is one of the most deadly of all mitochondrial diseases. It affects areas of the brain that control breathing, blood pressure, appetite and coordination.

Dr. Robert Naviaux of the Mitochondrial and Metabolic Disease Center at UCSD was Christine's primary physician after her illness was diagnosed and is the main beneficiary of Shimizu's fundraising efforts.

"There are hundreds of mitochondrial disorders, but they all share common characteristics," Naviaux said. - Every breath we take and every word we speak is made possible by mitochondria."

Mitochondria are the parts of human cells that contain genetic material important for cell metabolism, including those responsible for the con-



Debbie Shimizu (left), founder of the UCSD Christini Fund, met with Dr. Robert Naviaux in a lab he uses for mitochondrial disease research at UCSD Hillcrest. Nancee E. Lewis / Union-Tribune

version of food to energy.

Medical researchers estimate that one in 4,000 children born in the United States will develop a mitochondrial disease before his or her 10th birthday.

When Debbie and Don Shimizu's infant daughter was unable to gain weight and was not reaching developmental milestones like their other two children had, the parents knew something was wrong.

"When our daughter was finally diagnosed at 11 months old, it was like a bomb was dropped on us," Debbie Shimizu said. "We were told there was nothing doctors could do. There was no treatment - no cure."

Doctors at UCSD gave Christine a drug that was

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**DR. ROBERT NAVIAUX**  
*UCSD Mitochondrial and Metabolic Disease Center*

in clinical trials. They also changed her diet in the hopes that some foods were contributing to her suffering.

After what was supposed to be a minor surgery, Christine slipped into a coma and never recovered.

Since her daughter's death,

Shimizu started the Christini Fund and has raised almost \$1 million, largely through the golf tournament, to fund research that seeks a genetic cure for mitochondrial diseases.

During the tournament, Naviaux will detail the progress he is making in finding a cure.

"Through Debbie's efforts, our lab has been able to publish over 40 papers that report our discoveries in mitochondrial medicine," he said. "The research will have an effect on families and children here and around the world."

For more information on the Christini Fund or the golf tournament, go to [www.christin.org](http://www.christin.org) or call (858) 350-6343.