

## 'What does a ceramic engineer do?' Moskowitz provides the answer

4/21/05

Alfred University will present a Doctor of Science degree, honoris causa, to Joel Moskowitz, founder, president and chief executive officer of Ceradyne, Inc., Costa Mesa, CA, at its annual commencement ceremony at 10 a.m. May 14 in McLane Center on the AU campus. "People may not know the name 'Joel Moskowitz' or the name of his company, but certainly everyone has heard how ceramic body armor has saved hundreds of lives of American troops in Iraq and Afghanistan," said Dr. Charles M. Edmondson, president of Alfred University. "It would be impossible to calculate the number of injuries and deaths that have been prevented by the armor." "One of the most common questions we are asked is 'What does a ceramic engineer do?' People like Joel Moskowitz and the company he founded demonstrate very well just what ceramic engineers can do: They make products that save peoples' lives," said Edmondson. A 1961 alumnus of Alfred University with a degree in ceramic engineering, Moskowitz founded Ceradyne in 1967. The company makes the Small Arms Protective Insert, a lightweight ceramic plate that is inserted, front and back, in the body armor issued to soldiers fighting in Iraq and Afghanistan. In an interview with The Alfred Magazine, Moskowitz said he often receives letters, phone calls and e-mails from soldiers and their families, thanking Ceradyne for making the inserts that have stopped bullets, preventing injuries or saving lives. "One of the most dramatic stories is that of two Special Forces soldiers who were ambushed by the Taliban in Afghanistan and had to fight all night, just keep shooting to keep their position from being overrun," Moskowitz said in his interview. "They were in a life-and-death situation and just fired, and fired, and fired." Rescued by helicopter the next morning, one of the soldiers found a Russian machine gun bullet protruding from his vest. "It was two inches from his spine, wedged into our ceramic plate," Moskowitz said. Without the vest to stop the bullet, it very likely could have caused a fatal injury. The ceramic plates made by Ceradyne are about one-quarter of the weight of the steel plates that formerly had been used in body armor. That's important, said Moskowitz, because soldiers used to remove the back plates, in particular, to cut down on the weight of vest. With the lighter weight ceramic inserts, they are less likely to do that. With the stories of lives saved has come acclaim for Moskowitz and Ceradyne. He's been interviewed by reporters for national media, and received the prestigious Albert Einstein Technology Award from Israeli government in 2004. Ceradyne has grown into one of the leading manufacturers of advanced ceramic materials. Forbes magazine rated Ceradyne as "one of the 200 Best Small Companies in America" and Deloitte and Touche listed Ceradyne as one of the 50 fastest-growing companies in America. Under Moskowitz's leadership, sales have grown from \$30 million annually in 1999 to more than \$215 million for 2004. In August 2004, Ceradyne acquired ESK Ceramics, a German-based manufacturer of industrial technical ceramic powders and advanced ceramic products. Earlier that year, it acquired Quest Technology of San Diego, CA, a leader in injection molding of technical ceramics for medical applications. In addition to the body armor inserts, Ceradyne manufactures armor for aircraft, tanks and customized cars and limousines. In February, Ceradyne received its first-ever order to produce naval ship armor. While military applications represent more than 50 percent of Ceradyne's business, it does produce other advanced ceramic products, including ceramic orthodontic brackets that are a translucent alternative to metal and are marketed under the brand name, Clarity. It also makes a range of products used as an alternative to steel in highly-corrosive environments, or where heat-resistant materials are needed, such as in a diesel engine. After graduation from AU, where he was a member of the Reserve Officer Training Corp (ROTC), Moskowitz spent two years in the U.S. Army as a lieutenant in missile command, working on the technical ceramics being developed at the Army's Redstone Arsenal in Huntsville, AL. He then went to work as a research engineer for a ceramics company in California, and earned a master's degree in business administration from the University of Southern California prior to starting Ceradyne in 1967. Moskowitz has been a member of the Alfred University Board of Trustees since 1983. He and his wife, Ann, are members of AU's Society of Benefactors, those whose lifetime contributions to the University exceed \$1 million. Their most recent gift allowed the University to convert the former Sigma Alpha Mu fraternity house into Joel's House, special interest housing for 22 students who are interested in community service.