

American and German researchers to share \$500K medical prize

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This 2008 photo provided by the Albany Medical Center shows Arthur Horwich of the Yale School of Medicine, one of three researchers who will share the \$500,000 Albany Medical Center Prize in Medicine and Biomedical Research, in



New Haven, Conn. The three researchers work with cell proteins has implications for Alzheimer's disease, cancer and other degenerative illnesses. (Terry Dagradi/Yale University/Albany Medical Center via AP)

Three researchers whose work with cell proteins has implications for Alzheimer's disease, cancer and other degenerative illnesses will share one of the largest awards in medicine and science in the U.S., officials at a New York hospital said Wednesday.

The \$500,000 Albany Medical Center Prize in Medicine and Biomedical Research will be shared by F. Ulrich Hartl of the Max Planck Institute of Biochemistry in Martinsried, Germany; Arthur Horwich of the Yale School of Medicine; and Susan Lee Lindquist of the Massachusetts Institute of Technology.

The researchers were chosen for their fundamental and complementary discoveries related to the mechanisms of "protein folding," the last step in transferring genetic information from amino acids to cell proteins, said Dr. Vincent Verdile, dean of Albany Medical College and chairman of the prize committee.

"Though this may not be a term familiar to the general public, protein folding is a concept considered revolutionary in modern biology, with important implications for the treatment or delay of Parkinson's <u>disease</u>, Alzheimer's disease, Huntington's disease and other neurodegenerative conditions, as well as cancer and drug resistance," Verdile said.

It had been universally believed that <u>protein folding</u>, which shapes chains of <u>amino acids</u> into specific cell structures, was a spontaneous process. But the researchers, in separate studies, discovered a complex system of specialized "chaperone" proteins that guide the process.





This undated photo provided by the Albany Medical Center shows Susan Lee Lindquist of the Massachusetts Institute of Technology, who is one of three researchers who will share the \$500,000 Albany Medical Center Prize in Medicine and Biomedical Research. Their work with cell proteins has implications for Alzheimer's disease, cancer and other degenerative illnesses. (Ceal Capistrano/Whitehead Institute/Albany Medical Center via AP)

Their studies have raised hopes that manipulating the chaperone process with drugs or other treatments could prevent protein "misfolding" that



drives degenerative conditions like Alzheimer's, Parkinson's and Lou Gehrig's disease.

The award has been given annually since 2001 to those who have altered the course of medical research. It was established by the late Morris "Marty" Silverman, a New York City businessman. It will be formally presented on Sept. 28 in Albany.



This undated photo provided by the Albany Medical Center shows F. Ulrich Hartl of the Max Planck Institute for Biochemistry in Martinsried, Germany,



who is one of three researchers who will share the \$500,000 Albany Medical Center Prize in Medicine and Biomedical Research. Their work with cell proteins has implications for Alzheimer's disease, cancer and other degenerative illnesses. (Albany Medical Center via AP)

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